HIGH COURT OF AUSTRALIA

KIEFEL CJ,

GAGELER, GORDON, EDELMAN AND JAGOT JJ

THOMAS CHRIS LANG APPELLANT

AND

THE QUEEN RESPONDENT

Lang v The Queen

[2023] HCA 29

Date of Hearing: 12 May 2023

Date of Judgment: 11 October 2023

B57/2022

ORDER

Appeal dismissed.

On appeal from the Supreme Court of Queensland

Representation

R M O'Gorman KC with D M Caruana for the appellant (instructed by Fisher Dore Lawyers)

G J Cummings with N W Crane for the respondent (instructed by Office of the Director of Public Prosecutions (QLD))

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CATCHWORDS

Lang v The Queen

Criminal Practice – Appeal – Unreasonable verdict – Independent assessment of evidence – Where appellant charged with and convicted of murder – Where appellant appealed conviction on ground that verdict unreasonable or could not be supported having regard to whole of evidence – Where deceased's injuries were either self‑inflicted or caused by appellant – Where only hypothesis consistent with appellant's innocence was deceased's injuries were self‑inflicted – Whether reasonable possibility upon whole of evidence that deceased died by suicide.

Evidence – Criminal trial – Admissibility – Expert opinion evidence – Where opinion evidence adduced from forensic pathologist that injuries occasioning death more likely inflicted by another person than self‑inflicted – Whether opinion based on expert knowledge – Whether wrong decision of question of law to admit evidence.

Words and phrases – "admissibility", "body of knowledge or experience", "expert evidence", "inadmissible", "independent assessment of the evidence", "miscarriage of justice", "opinion", "specialised knowledge", "training, study or experience", "unreasonable verdict", "wholly or substantially".

*Criminal Code* (Qld), ss 590AA, 668E.

1. KIEFEL CJ AND GAGELER J. This is an appeal from a unanimous decision of the Court of Appeal of the Supreme Court of Queensland (McMurdo and Mullins JJA and Brown J)[[1]](#footnote-2) which dismissed an appeal by the appellant against his conviction for murder following a trial by jury before Lyons SJA in that Supreme Court. We agree with Jagot J, for the reasons her Honour gives, that neither of the appellant's grounds of appeal to this Court has merit and that the appeal should therefore be dismissed.
2. The answer to the appellant's argument on the first ground of appeal is that the verdict of the jury was not unreasonable. The only hypothesis consistent with innocence was that Mrs Boyce stabbed herself to death. Taken as a whole, the evidence admitted at the trial was sufficient for the jury to exclude that hypothesis as unreasonable. The evidence would remain sufficient for the jury to exclude that hypothesis as unreasonable even if the evidence were taken to exclude the disputed opinion of Dr Ong that Mrs Boyce's wound was more likely to have been inflicted by another person than to have been self-inflicted.
3. The answer to the appellant's argument on the second ground of appeal is that admission of the disputed opinion of Dr Ong into evidence at the trial, over objection made by the appellant and ruled on by the trial judge in the pre-trial hearing, involved no wrong decision on any question of law. The opinion of Dr Ong was demonstrated by his evidence in chief at the trial to have been founded substantially on specialised knowledge of the interpretation of incised injuries acquired through long experience as a specialist forensic pathologist and through reading of literature on incised injuries within the specialised field of forensic pathology. Nothing in the evidence he gave in the pre-trial hearing or in cross-examination in the trial undermined that foundation.
4. We write to elaborate on the common law principles which bore on the admissibility of Dr Ong's opinion.
5. Expert evidence need not be opinion evidence. Evidence given by an expert sometimes involves nothing more than imparting expert knowledge and sometimes involves nothing more than giving a technical description of events and processes in which the expert was involved. Much of Dr Ong's evidence at the trial was evidence of the latter kind. It was evidence of what he did and saw in his capacity as a forensic pathologist when first he attended the scene of Mrs Boyce's death and when later he conducted her autopsy.
6. Subject to limited exceptions, however, opinion evidence can only be expert evidence. The reason lies in the nature of an opinion and in the nature of the curial process. An opinion is an inference drawn from observed and communicable data[[2]](#footnote-3). Within the curial process, data that has been observed is communicated to a court through the adducing of evidence. Drawing inferences from that evidence to make findings of fact is the function of the tribunal of fact. The tribunal of fact, whether a judge or a jury, can be expected to perform that fact-finding function forming their own opinion as to the inferences to be drawn from the evidence based on their own common knowledge and experience. Another person cannot usurp the fact-finding function of the tribunal of fact, and an opinion of another person based on nothing more than the common knowledge and experience of that person cannot assist the tribunal of fact in performing that function[[3]](#footnote-4). The tribunal of fact might at most be assisted in the performance of the function by being apprised of the opinion of another person – an expert – based on that person's specialised knowledge or experience. The probative value of evidence of an opinion that is based on specialised knowledge or experience then lies in the extent, if any, to which the opinion has the potential to assist the tribunal of fact in the process of drawing the requisite inferences for itself.
7. That common law conception of the opinion of an expert having probative value only if and to the extent that the opinion can assist the tribunal of fact in forming its own opinion as to inferences to be drawn from evidence was the starting point and the dominant theme of the influential analysis in *Makita (Australia) Pty Ltd v Sprowles*[[4]](#footnote-5). The role of expert witnesses was explained at the commencement of that analysis in the following terms[[5]](#footnote-6):

"Their duty is to furnish the Judge or jury with the necessary scientific criteria for testing the accuracy of their conclusions, so as to enable the Judge or jury to form their own independent judgment by the application of these criteria to the facts proved in evidence. The scientific opinion evidence, if intelligible, convincing and tested, becomes a factor (and often an important factor) for consideration along with the whole other evidence in the case, but the decision is for the Judge or jury."

1. The traditional approach of the common law to the admissibility of evidence of the opinion of an expert has been consistent with that conception of the probative value of evidence of the opinion of an expert lying in the extent, if at all, to which the opinion might assist the tribunal of fact to draw inferences from other evidence that has been adduced. The approach has been simultaneously to accept that "the opinion of witnesses possessing peculiar skill is admissible whenever the subject-matter of inquiry is such that inexperienced persons are unlikely to prove capable of forming a correct judgment upon it without such assistance" and to deny that "the opinions of witnesses can be received when the inquiry is into a subject-matter, the nature of which is not such as to require any peculiar habits or study in order to qualify a man to understand it"[[6]](#footnote-7).
2. The traditional approach has come under strain as developments in specialised knowledge, especially in fields of behavioural science[[7]](#footnote-8) and forensic science[[8]](#footnote-9), have narrowed the subject-matters in respect of which it might continue to be asserted categorically and with confidence that common knowledge and experience provide so firm a foundation upon which to engage in fact-finding that the opinion of an expert could be of no assistance. This Court has emphasised that "it does not follow that, because a lay witness can describe events and behaviour, expert evidence is unavailable to explain those events and that behaviour"[[9]](#footnote-10). Nor does it follow that evidence of the opinion of an expert is unavailable to assist the tribunal of fact merely because the tribunal of fact, whether a judge or a jury, could be expected in the absence of that expert evidence to work out their own explanation for events and behaviour making use of nothing more than the common knowledge and experience that can be attributed to them.
3. Nonetheless, it remains a condition of the admissibility of evidence of the opinion of an expert at common law that the opinion be demonstrated to be based on specialised knowledge or experience of the expert that is beyond the common knowledge and experience attributable to the tribunal of fact. Only if that condition is satisfied can the opinion of the expert assist the tribunal of fact to form the requisite opinion of its own as to the inferences to be drawn from the evidence to make findings about disputed facts should the tribunal of fact be persuaded to accept and act upon the opinion[[10]](#footnote-11).
4. The parties were therefore correct in choosing to present their arguments on the appeal on the common understanding that the principles stated in *Makita*[[11]](#footnote-12), and acknowledged and applied in *Dasreef Pty Ltd v Hawchar*[[12]](#footnote-13)in the context of considering the admissibility of the opinion of an expert under the uniform evidence legislation, apply equally to the determination of the admissibility of an expert opinion at common law. Those principles require that, in order to satisfy the condition of admissibility that the opinion of an expert be demonstrated to be based on specialised knowledge or experience, the inference drawn by the expert which constitutes the opinion be supported by reasoning on the part of the expert sufficient to demonstrate that the opinion is the product of the application of the specialised knowledge of the expert to facts which the expert has observed or assumed.
5. The requirement for the opinion to be demonstrated to be the product of the application of the specialised knowledge of the expert is not absolute. In the terminology of the uniform evidence legislation, it is enough that the opinion be demonstrated to be based substantially on that specialised knowledge. Expression of the requirement in terms of substantiality recognises that specialised knowledge cannot be wholly divorced from common or ordinary knowledge and that it is "the added ingredient of specialised knowledge to the expert's body of general knowledge that equips the expert to give his or her opinion"[[13]](#footnote-14). The requirement will not be contravened by a process of reasoning on the part of an expert which involves using only those parts of the common or ordinary knowledge of the expert that are necessary for the expert to use in forming his or her opinion through the application of specialised knowledge[[14]](#footnote-15).
6. Reasoning sufficient to demonstrate that the opinion formed by an expert is the product of the application of his or her specialised knowledge need not be limited to formal induction or deduction. Speculation, however, is not reasoning[[15]](#footnote-16). Nor is intuition. Writing extra-curially 90 years ago, in a passage adopted judicially in *Makita*[[16]](#footnote-17) and many times elsewhere[[17]](#footnote-18), Sir Owen Dixon observed that "courts cannot be expected to act upon opinions the basis of which is unexplained"[[18]](#footnote-19). He continued: "[h]owever valuable intuitive judgment founded upon experience may be in diagnosis and treatment, it requires the justification of reasoned explanation when its conclusions are controverted"[[19]](#footnote-20).
7. That is not to say that the permissible reasoning of an expert must be confined to matching an observed or assumed pattern of fact to patterns of fact encountered by the expert in the past. To adapt a comment made by the Supreme Court of the United States[[20]](#footnote-21) in relation to the federal rule of evidence[[21]](#footnote-22) which there permits expert testimony to be given in the form of an opinion if "scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue":

"Trained experts commonly extrapolate from existing data. But nothing ... requires a ... court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered."

1. Here, it is important to highlight a distinction touched on but not elaborated upon in *Makita*[[22]](#footnote-23). The distinction is between the present question as to whether a process of reasoning engaged in by an expert is sufficient to demonstrate that his or her opinion is the product of the application of specialised knowledge and the question of the extent to which a process of reasoning engaged in by an expert through the application of specialised knowledge is clear and convincing. Both questions can be described as going to the utility or value of the opinion[[23]](#footnote-24).
2. However, it is the present question alone that goes inexorably to the "admissibility" of the opinion as distinct from its "weight"[[24]](#footnote-25). In addressing the present question of whether the opinion satisfies the condition of admissibility that the opinion be demonstrated to be based on specialised knowledge or experience of the expert, lack of cogency in so much of the reasoning as is found to involve application of specialised knowledge is not to the point: "the giving of correct expert evidence cannot be treated as a qualification necessary for giving expert evidence"[[25]](#footnote-26).
3. The latter question – as to the cogency of reasoning involving the application of specialised knowledge – can also go to the admissibility of a resultant opinion. But that is only in so far as the degree of cogency of the reasoning bears on the extent to which the resultant opinion has the potential to assist the tribunal of fact in drawing requisite inferences from the evidence and so bears on the calculus to be undertaken by a court if and when the court is asked or required to consider whether the opinion should be excluded on the distinct ground[[26]](#footnote-27) that the probative value of the opinion is outweighed by its prejudicial effect. Undertaking that calculus by assessing the probative value of the opinion having regard to the cogency of the reasoning proffered in evidence in support of it involves no departure from the now settled principle that the assessment of the probative value of evidence requires that evidence to be "taken at its highest": taking evidence at its highest involves making no assumption that the evidence in question is convincing[[27]](#footnote-28). The prejudicial effect which might in an appropriate case be required to be weighed against the probative value of an expert opinion has properly been recognised to be capable of including a risk that a jury might give the opinion more weight than it deserves by reason of a perception of the status of the expert – the so-called "white coat effect" – or by reason of difficulty in assessing information of a technical nature[[28]](#footnote-29).
4. The latter question does not arise for consideration in the present appeal. The question is not within the scope of the second ground of appeal. The trial judge was not asked to exclude the opinion of Dr Ong on the ground that its probative value was outweighed by its prejudicial effect. No argument was put to the Court of Appeal or to this Court that failure to exclude the opinion on that ground constituted a miscarriage of justice.
5. The question for determination on the second ground of appeal therefore reduces to whether the process of reasoning disclosed by Dr Ong's testimony was sufficient to demonstrate that his opinion that Mrs Boyce's wound was more likely to have been inflicted by another person than to have been self-inflicted was the product of his application of the specialised knowledge of the interpretation of incised injuries which he undoubtedly had to the facts which he recounted as having observed when he attended the scene of Mrs Boyce's death and when later he conducted her autopsy.
6. There is, as Jagot J points out, some difficulty appreciating the evidence of Dr Ong merely from the transcript. It appears that English may not be his first language. From comments made by the trial judge to the jury, it appears that he was softly spoken. His sentence structure was difficult. Some of what he said was indistinct. For all of that, the overwhelming impression which emerges from reading the transcript is that of a professional and dispassionate forensic pathologist seeking to make sense of observed phenomena in respect of which neither his long experience nor his wide reading furnished an exact precedent.
7. Dr Ong said that his opinion was "based on" his "experience" as a forensic pathologist for about 25 years during which he had seen roughly two or three deaths from stab wounds a year and on the "literature" concerning the typical features of self-inflicted stab wounds and those of homicidal stab wounds. He also said in his evidence in chief in the pre-trial hearing that his opinion was "based on" his "logical sense of what happened". This expression was unfortunate in that it could be interpreted as Dr Ong saying that, in forming his opinion, he had drawn on some third source of background knowledge additional to his professional experience and the scientific literature. However, it is clear enough from his cross-examination in the pre-trial hearing that what he was saying was that he had engaged in a process of inductive reasoning which involved applying his knowledge of the interpretation of stab wounds to observed features of Mrs Boyce's wound to form a conclusion about which of the two scenarios was more likely. That is how his use of the expression was understood both by the trial judge[[29]](#footnote-30) and by the Court of Appeal[[30]](#footnote-31). There is no reason to depart from that understanding.
8. From Dr Ong's more detailed evidence, it is apparent that two features of the wound he had observed were significant to the formation of his opinion that the wound was more likely caused by another person than self-inflicted. One was that there were multiple tracks through a single incision, indicating multiple movements of the blade (some four or five in total). The other and more specific feature concerned what Dr Ong considered must have occurred between the initial movements of the blade (the first two) and the later movements of the blade (the last two or three) to produce those multiple tracks. What he considered must have occurred was a partial withdrawal of the blade (of some 14 or 15 centimetres) followed by a rotation of the blade (of some 180 degrees), during which there would have been a slight delay, followed then by a reinsertion of the blade.
9. These were observations drawn from the nature of the wound itself. In considering them, Dr Ong was evidently comparing those features of this wound with the features of other wounds which he had seen and read about. The difficulty, which he acknowledged repeatedly, was that this wound did not fit a standard pattern. In his terminology, it was "odd".
10. What Dr Ong did not do well was explain why he found those features of the wound more consistent with stabbing by someone else than stabbing by the deceased. The pain that would have been involved in the partial withdrawal and rotation of the blade was part of the explanation but not the whole of the explanation. At least an equally important part of the explanation appears to have been that Dr Ong would have expected someone who was wanting to kill themself to plunge a knife along a single track rather than either to make multiple incisions or to move it around along multiple tracks within a single incision. This second part of the explanation lacked precision in the manner of its expression. But the appellant was incorrect to characterise it as having been based on Dr Ong's "personal, subjective view as to how a person may or may not act when attempting to die by suicide". Fairly read, it amounted to a process of inferential reasoning throughout which Dr Ong was engaging in a comparison of the features of this stab wound with what he had seen and read of the features of stab wounds made in the past by people who had wanted to kill themselves and by people who had been killed by others. The prior instances which Dr Ong said he had seen, and about which he said he had read, did not support the inference strongly, but neither did Dr Ong express his opinion strongly.
11. Absent a clearer explanation of Dr Ong's process of reasoning, his opinion about whether the features of the wound which he identified were more consistent with stabbing by someone else might legitimately have been thought to have carried little more weight than the opinion that could be expected to be formed by a layperson once apprised through the technical description by Dr Ong of the same features of the wound. That weakness might well have been thought to have gone to the admissibility of Dr Ong's opinion had the argument been advanced that its probative value was outweighed by its prejudicial effect.
12. That said, we cannot conclude that, in engaging in the process of reasoning which led to the formation of the opinion, Dr Ong did other than draw substantially on his specialised knowledge. Accordingly, the appeal should be dismissed.

GORDON AND EDELMAN JJ.

Introduction

1. On 22 October 2015, Mrs Maureen Boyce died in her bed in her 20th-floor apartment at Kangaroo Point in Brisbane. She was 68 years old. The medical evidence was that the approximate time of death was between 1.45 am and 3.45 am. The cause of her death was blood loss from a stab wound to her abdomen from a knife. Only two people were in her apartment at the time of her death: Mrs Boyce and the appellant, Mr Lang. The appellant accepted at trial and before this Court that there were only two possibilities: either Mrs Boyce committed suicide, or she was murdered by the appellant.
2. The appellant was convicted at a trial before a judge and jury in which prejudicial evidence was admitted concerning the suicide rates of Australian women. The erroneous admission of that evidence led to that conviction being quashed on appeal[[31]](#footnote-32). The appellant was then retried before a judge and jury and convicted again. He was sentenced to life imprisonment. He appealed against that conviction on two grounds: that the verdict was unreasonable, and that an important aspect of the expert evidence given by Dr Ong, a forensic pathologist, expressing conclusions concerning the knife injury was inadmissible[[32]](#footnote-33). The Court of Appeal of the Supreme Court of Queensland (McMurdo and Mullins JJA and Brown J) dismissed the appeal[[33]](#footnote-34). The appellant, by special leave, appeals to this Court on the same two grounds.
3. In oral submissions in this Court, senior counsel for the appellant disclaimed any submission that the admissibility of Dr Ong's evidence should affect the assessment of the first ground of appeal. In other words, it was accepted that the assessment of whether the verdict was unreasonable should proceed on the assumption that the entirety of Dr Ong's evidence was admissible.
4. In assessing whether the Court of Appeal was correct to conclude that the verdict of the jury was not unreasonable, this Court has the same duty as the Court of Appeal to engage in an "independent assessment of the evidence, both as to its sufficiency and its quality"[[34]](#footnote-35). It is the duty of an appellate court, and each of its members, when considering whether a verdict is unreasonable to examine the entirety of the record and properly to explain the conclusions in appropriate detail. That detail is considered below.
5. In broad summary, the prosecution case was circumstantial and, in addition to the fact that Mrs Boyce's death could only have been caused by Mrs Boyce or the appellant, relied particularly upon four significant matters.
6. First, there was evidence that although Mrs Boyce had long had suicidal ideation, this generally occurred when she was depressed and she would not act upon that ideation. There was evidence that she was not in a depressed state before she died, notably from her psychiatrist who saw her a day and a half before she died.
7. Secondly, the appellant had a motive to murder Mrs Boyce. He told police in his interviews that he loved her and had given up his medical practice to be with her. He thought that he was engaged to marry her and that she was coming to live with him in New Zealand. The appellant admitted that on the evening before her death she had argued with the appellant about fidelity and had mentioned a man, Mr Kenneth McAlpine, with whom the appellant thought she was having an affair.
8. Thirdly, and relatedly, Mrs Boyce's iPhone, her "lifeline", was thrown off the balcony but the appellant lied in his police interviews about the timing of when the iPhone was thrown off the balcony. He said that it was thrown off the balcony shortly before Mrs Boyce went to bed, variously expressing the time of that event as ranging between 9 pm and 9.45 pm. Around 9.30 pm, Mrs Boyce had spoken on the phone with her son and described herself as drowsy. She had taken prescription medicine and drunk a couple of glasses of wine. But forensic analysis of the iPhone showed that it could not have been thrown off the balcony until after midnight. In an eight-minute period around midnight the iPhone was unlocked by the use of Mrs Boyce's PIN code and text messages were opened including one from Mr McAlpine. A short phone call was also made with a silent 12-second message left on the voicemail of one of Mrs Boyce's contacts, Mr East, whom she had only met briefly, years ago.
9. Fourthly, expert evidence was given by Dr Ong about the nature of the knife wound. He said that although there was externally only a single stab wound, there were a number of internal tracks within the wound. He concluded after a lengthy analysis of the nature of the wound with an expression of the opinion that although he could not "completely eliminate" the possibility of a self-inflicted injury "it [was] more likely that [the] wound [was] caused by a ... different person".
10. The appellant did not call or give evidence at the trial. The defence case was that, as the appellant had said in his interviews with police, he had woken up in a separate bedroom around 5.30 am and discovered Mrs Boyce dead. The defence pointed to a number of matters consistent with suicide. Mrs Boyce had suffered from depression for many years with suicidal ideation. A day and a half before her death she had telephoned an acquaintance with whom she had not spoken for many years to say that she was very depressed and that she felt suicidal. A "protective" factor against suicide that her psychiatrist had described was the prospective birth of a grandchild, but Mrs Boyce had not told her psychiatrist that her daughter had told her that she would never see her grandchild.
11. On the evening of her death, Mrs Boyce had suffered a disappointment by discovering that prospective purchasers of her apartment were unlikely to purchase it. Mrs Boyce's treating psychiatrist agreed that the sale of the apartment was very important to her, and said that it was a protective factor that Mrs Boyce and Dr Boyce had been attempting to sell the apartment in order to reduce their financial burden and get Dr Boyce down to Brisbane so that he would not have to work too much. The possibility that the prospective purchasers would not buy the apartment would have weakened the protective factor but would not necessarily have made her more suicidal.
12. The defence also relied on the forensic evidence—and the absence of forensic evidence—at the scene. The knife was found in Mrs Boyce's abdomen and the tips of the fingers of her left hand were "just in contact" with the handle of the knife. No fingerprints were located on the handle of the knife and the only DNA recovered from the handle of the knife was consistent with that of Mrs Boyce. The appellant's DNA was not detected anywhere on Mrs Boyce's body, apart from on her breasts. The prosecution accepted that this could be explained by her being in a relationship with the appellant and his statements that there had been some interaction between them earlier that night, or by contact with her while she was on the bed. A forensic medical examination of the appellant and his clothing revealed no injury or any forensic evidence relevant to the death of Mrs Boyce. There was no blood found anywhere in the apartment other than the bed and a couple of drops beside the bed, and there was no evidence that blood had been cleaned up.
13. For the purpose of DNA and other forensic testing, the police took swabs from Mrs Boyce's body, the handle of the knife, blood on the carpet in the bedroom, the rims and contents of the wine glasses, a red/brown stain on a plant pot on the balcony, and the tap and sink hole (including a "U-bend" pipe) in the master ensuite. That targeted testing was based in part upon prior examination of the whole apartment both visually and by a blood-screening chemical or a presumptive test (referred to as "TMB"). A confirmatory test for blood called HemaTrace was also conducted on items that presumptively tested positive for blood (such as the stain on the pot, the tap, sink hole and U-bend), but that confirmatory testing showed no positive results for blood.
14. The evidence was that, although the injury may have taken up to five seconds to inflict, the significant blood loss occurred as a result of a much slower seepage over time. Mrs Boyce would likely have been conscious for between five and 15 minutes from the time the wound was inflicted, experiencing a physiological fight or flight response if she had been stabbed by the appellant. But the scene was not consistent with any movement or a struggle. The saturation stain on the fitted bottom sheet under Mrs Boyce was the result of the slow release of blood from the wound over a period of time with minimal movement. There was no evidence that Mrs Boyce attempted to make a phone call from the landline phone beside her bed. Neither Mrs Boyce nor the appellant had any injuries consistent with a struggle. And it was not put to any of the expert witnesses at trial, nor ever suggested in any submissions on appeal to the Court of Appeal or in this Court, that this could be explained on the basis that Mrs Boyce might have experienced a physiological "freeze" response.
15. In the circumstances of this case, the critical question is whether, on an examination of the whole of the evidence, the prosecution failed to exclude as a reasonable hypothesis that Mrs Boyce committed suicide. That question is finely balanced and we have struggled with the answer to it. The only proper approach, and that which we have adopted, is a dispassionate, objective and accurate assessment of all the evidence and argument. When that approach is taken, and the case is viewed as a whole, the better view is that the prosecution did exclude beyond reasonable doubt the hypothesis that Mrs Boyce committed suicide. For the reasons explained in detail below, therefore, the verdict of the jury was not unreasonable.
16. A significant aspect of the reasoning in support of the conclusion that the verdict was not unreasonable, however, is the expert evidence of Dr Ong concerning the likelihood that Mrs Boyce's injury was inflicted by another person. In this Court, and in the Court of Appeal, the appellant did not submit that an assessment of whether the verdict was unreasonable should take place without regard to Dr Ong's evidence. But, in relation to the second ground of appeal it must be accepted that there was no basis in expertise that was exposed by Dr Ong for his opinion on the critical issue that went to the very heart of the matters in dispute. Dr Ong's evidence on this point should have been excluded and the second ground of appeal should be upheld. There should be a retrial.

The core narrative from the evidence at trial

Background to 21 October 2015

1. Mrs Boyce was born in 1947. Around 1974, Mrs Boyce commenced a relationship with Dr Boyce, who is a general practitioner of medicine. They married in 1976. Dr Boyce was aware that Mrs Boyce had mental health issues involving anxiety and that Mrs Boyce saw a psychiatrist irregularly. Around 1979 or 1980, on a two-week trip by herself to the United States to see a friend, Mrs Boyce met the appellant. A couple of months later she told Dr Boyce that she had met the appellant and was going to travel to Texas to see more of the appellant. The appellant was at medical school at that time. He later became a doctor.
2. During Mrs Boyce's extended period in the United States, she remained in contact with Dr Boyce. He flew to the United States for a medical conference in San Francisco. Dr Boyce met Mrs Boyce after the conference and spent four to six weeks travelling in the United States with her, after which he returned to Australia. At that time, Dr Boyce was aware that she was in a relationship with the appellant.
3. In 1979 or 1980, several months after Dr Boyce's visit, Mrs Boyce had planned to return to Australia. But she was hospitalised and became too ill to return to Australia. Dr Boyce flew to Texas to bring her home. While Dr Boyce was in the United States, the appellant telephoned Dr Boyce, they met for lunch, and the appellant took Dr Boyce on a tour of Houston.
4. Mrs Boyce returned to Australia with Dr Boyce around 1980 and they had two children, a son who was born in 1981 some months after her return from the United States, and a daughter who was born in 1985. From the time of Mrs Boyce's return to Australia she had been taking anti-depressants. Around 1995, after the death of Mrs Boyce's mother and a family feud, Mrs Boyce became depressed. When she was suffering the symptoms of depression, she would not go out or take care of her appearance, she did not want to see people, and could not sleep. She was hospitalised for a period of time and she remained under psychiatric care and medicated for her psychiatric illness from that time onwards. Mrs Boyce's son, a doctor, described her psychiatric illness as "bipolar depression". He said that he saw her once or twice in a manic phase and on other occasions in a depressive phase.
5. Dr Spelman, Mrs Boyce's treating psychiatrist for many years, described her illness as a bipolar disorder with a capacity for her mood to be abnormally low or abnormally high. In the almost 15 years that he treated her before her death he had seen her in the depressed state where he described her as "pervasively sad and unhappy" with reduced self-care, not showering regularly, having trouble getting out of bed, and having difficulty sleeping. When she was in an elevated state she was energetic, highly social, quite reckless with her spending, and would tend to avoid seeing Dr Spelman. In addition, he described her as having a longstanding borderline personality disorder that led her to be more impulsive and unstable than someone who merely suffered from bipolar disorder. Her moods could go up and down on a daily basis.
6. From around 1999 or 2000, Mrs Boyce had a relationship, which developed into a sexual relationship, with Mr McAlpine, who was the gardener and handyman for the family home. Their sexual relationship ended in 2002 or 2003 when he moved to New South Wales. But they stayed in touch including after Mr McAlpine had moved back to Brisbane.
7. From around 2002, Dr Boyce was working in Cairns as a general practitioner. Mrs Boyce and the children would visit Dr Boyce in Cairns and he would make trips to Brisbane where Mrs Boyce and the children were living. But in late 2002, Mrs Boyce purchased, in her name, an apartment at Kangaroo Point when the family was not in a financial position to do so. Dr Boyce assumed financial responsibility for the mortgage repayments. From that point, Dr Boyce lived in Cairns for work and would fly in and out of Brisbane to see his family. The family would also travel to Cairns to stay with him during school and university holidays, and later, when the children were no longer at home, Mrs Boyce would go up to Cairns by herself. Dr Boyce also paid the living expenses for Mrs Boyce and the children.
8. During 2013 and 2014, for about 18 months, Mrs Boyce "lived fairly exclusively" in Cairns with Dr Boyce and her son who was then working in Cairns Hospital.
9. At the beginning of 2013, Mrs Boyce got in touch again with the appellant who was living in New Zealand. She did so following discussions with her son who Mrs Boyce had previously suggested was the biological child of the appellant. Her son was interested in obtaining a United States passport and asked Mrs Boyce to get in touch with the appellant. Mrs Boyce told her son that the appellant had told her that the appellant would consider assisting with a passport if she travelled to see the appellant in New Zealand, which she did.
10. In mid-to-late 2013, the appellant travelled to Brisbane and had dinner with Mrs Boyce and her son. Mrs Boyce's son did not remain in direct contact with the appellant after that dinner, but Mrs Boyce began to travel to New Zealand to see him. Mrs Boyce told her son that she was considering leaving Dr Boyce for the appellant, but later she said that she would not leave Dr Boyce.
11. In 2013, Dr Boyce discovered that Mrs Boyce had travelled to New Zealand to see the appellant. He discovered this after receiving a letter or email from the appellant thanking Dr Boyce for letting Mrs Boyce travel to New Zealand to help the appellant who had been suffering from depression. But Dr Boyce was not then aware of the regularity of Mrs Boyce's trips to New Zealand, or the appellant's trips to Brisbane, which continued through 2014 and 2015.
12. During 2014, Dr Boyce returned to Brisbane with Mrs Boyce because he had been diagnosed with prostate cancer which was aggressive and required surgery in November 2014. Around that time, Mrs Boyce was having major problems with depression which were contributed to by Dr Boyce's cancer. From late November, Mrs Boyce was treated with electroconvulsive therapy as a day patient in hospital for three days a week for several weeks, and then was admitted to hospital in late December 2014 to finish off the course of treatment. She was discharged in January 2015. Mrs Boyce subsequently travelled back to Cairns to be with Dr Boyce because she was in such a depressive phase that she was unable to care for herself.
13. On 16 February 2015, Mrs Boyce travelled to New Zealand and stayed there for 32 days. While there, Mrs Boyce sent a text message apologising to her daughter who was upset that she had travelled to New Zealand to see the appellant. Not long after her return, Mrs Boyce was hospitalised for pneumonia for a number of days. Mrs Boyce attended consultations with Dr Spelman on 2 April and 27 April 2015, and then was hospitalised on 30 April 2015 for another course of treatment for her depression. It was noted in her admissions summary that the stressors that were operative at the time were her husband's illness and her daughter's upcoming wedding. It was important to Mrs Boyce to get well for her daughter's wedding, which was at the end of May 2015.
14. Dr Spelman's notes from around that time included a description of Mrs Boyce's intermittent suicidal ideation, which he explained to the jury was preoccupation with thinking about ending one's life. There was other evidence that Mrs Boyce was experiencing suicidal ideation around that time. While Mrs Boyce was in Cairns with Dr Boyce in 2015, and suffering from serious depression, she told him that she would jump off the balcony or slip off the back of the ferry and disappear. She texted the appellant on 7 June 2015, telling him that she had wanted to commit suicide by jumping off the back of a cruise boat**.** He responded the same day, saying "Mimi, what's harder. The effort it takes to get here or to continue on the brink of suicide and flirting w it daily?".
15. Mrs Boyce's suicidal ideation was not isolated. Dr Spelman described her as expressing suicidal ideation whenever she was depressed. He said that her suicidal ideation was not something coming and going on a daily basis when she was not depressed. In her discussions with Dr Spelman, Mrs Boyce's suicidal ideation never progressed to suicidal intent or planning. She had remarked to Dr Boyce and her son on a number of occasions over the years that she was thinking about suicide. She had told Dr Boyce many times that she felt so bad she wished that she were dead. It would be fairly common for her to speak of jumping off the balcony. On an occasion when Mrs Boyce was in Brisbane and Dr Boyce was working in Cairns, she had made suicidal remarks to Dr Boyce and Dr Boyce telephoned the police and ambulance who attended the apartment. Dr Boyce gave evidence that when they arrived, "they came in and found her happily sitting down, having some supper and watching a TV show", and that she was upset with him for "dobbing her in" and wasting their time. On one occasion when she had spoken to her son about suicide, around 2009, her son had found her standing on the balcony peering over and when she saw him approach she moved her leg as if to stand on a chair. Her son encouraged her to get down and she remarked that she "would never go ahead with it" and that she wouldn't leave the children but that she "just didn't like the way [she] was feeling".
16. In June or July 2015, following the marriage of their daughter, Dr Boyce and Mrs Boyce engaged an agent to sell the Kangaroo Point apartment so that they could buy a smaller apartment in the same block where their son also purchased an apartment. Dr Boyce said that the plan was for them to move back in together in Brisbane and he would "semi-retire[]".
17. Mrs Boyce's condition improved in late July 2015. One day in late July she went to the hairdressers and a nail salon, and bought new clothes before going out to dinner with Dr Boyce. Dr Boyce said that after that night her mood had changed.
18. During that period, the appellant regularly emailed Mrs Boyce. On 23 July 2015, the appellant emailed Mrs Boyce with details of a property that they could buy together in New Zealand. On 13 August 2015, he emailed her an invitation to an upcoming festival in Tauranga, New Zealand, and said that "hopefully [Tauranga] will be [her] home by then".
19. In August 2015, Mrs Boyce returned to Brisbane from Cairns to facilitate the sale of the apartment and see friends. On 3 September 2015, Mrs Boyce and the appellant had a text exchange where he asked the current amount of her Brisbane mortgage and said he was "[j]ust thinking of our future options". She responded, "What about your options?", to which he replied "OUR options" and said "[w]e have much to discuss". She asked him to call her and said "I want to talk to you now or else I'm cancelling my trip to NZ".
20. On 11 September 2015, she travelled from Brisbane to New Zealand and stayed there for 14 days. At the time that Mrs Boyce left, Dr Boyce was still living and working in Cairns. He became concerned when he was unable to contact Mrs Boyce and he asked his son to check on Mrs Boyce. His son told Dr Boyce that Mrs Boyce was on her way to New Zealand to see the appellant. His son referred to a post on Mrs Boyce's Facebook page to that effect. Dr Boyce was extremely upset because he had been unaware of the continuing contact between Mrs Boyce and the appellant. Dr Boyce posted an offensive message on Mrs Boyce's Facebook page. Regular daily contact between Dr Boyce and Mrs Boyce ceased and did not resume until a week after Mrs Boyce returned from New Zealand. Mrs Boyce's son texted her while she was in New Zealand that "Dad's very upset that you would spend his money to go over there and now he can't pay his tax bill" and asked her to "[s]top spending all this money that dad can't afford".
21. On 20 September 2015, Mrs Boyce's daughter, who described herself as "heavily pregnant" and "very emotional" at the time, texted Mrs Boyce saying that Mrs Boyce had "ruined [their] family", that she wanted nothing to do with Mrs Boyce again, and that Mrs Boyce would never meet her grandson. Mrs Boyce sent her daughter texts in the weeks which followed but received no reply. Mrs Boyce's daughter said that it was not unusual for them not to be speaking with each other for some time.
22. In September 2015, the relationship between Mrs Boyce and Dr Boyce soured further. On 20 September, Dr Boyce texted Mrs Boyce to say, "[i]f u sell then lang can help u clear it out", to which she responded, "Lang has got nothing to do with it". A few days later, Dr Boyce texted Mrs Boyce to say that she "would be best to stay permanently in n.z.". Mrs Boyce replied "Stop playing games!!! I'm coming back to Brisbane", "I'm finished with him" and "What have you been saying to [our daughter]? She sent me the nastiest text message."
23. On 25 September 2015, Mrs Boyce returned to Brisbane from New Zealand. She texted the appellant, "Miss you already darling", and he responded, "I LO[V]E YOU DARLING!!!!!!!!!". On 26 September 2015, Mrs Boyce contacted Mr McAlpine, with whom she had been in regular contact, to invite him to watch a Riverfire performance in Brisbane that evening from her apartment. He went to her apartment where they had a few drinks and talked into the night.
24. On 28 September 2015, Mrs Boyce told Dr Boyce that she had finished with him and that she wanted a divorce. She must have previously discussed the possibility of divorce with the appellant because in a text message to her on 26 September 2015 the appellant said that he had sent her information for a divorce. Dr Boyce said that the idea of a divorce lasted only a day or two.
25. At around that time, after Mrs Boyce had returned from New Zealand, she entered into a "cash contract" for the purchase of an apartment in the block next to their apartment in Kangaroo Point. Dr Boyce considered that they could not afford to buy the apartment. He told the agent that the contract should be annulled on the grounds of Mrs Boyce's mental health. Ultimately, however, Dr Boyce agreed to sign a contract which was subject to finance rather than unconditional. Finance was not obtained. Dr Spelman said he believed that Mrs Boyce was in a manic or hypomanic phase when she signed the contract for the apartment.
26. On 29 September 2015, Dr Boyce tried to call Dr Spelman's rooms to book an appointment. Dr Spelman was on leave until mid-October. His clinical practice coordinator recorded in her notes that Dr Boyce had concerns about Mrs Boyce's mental state because she was manic, unsettled, had "want[ed] to put a contract on a luxury unit", had stopped taking her medication and was refusing to attend an appointment with Dr Spelman's locum psychiatrist.
27. On 1 October 2015, the clinical practice coordinator again spoke to Dr Boyce and recorded that "Things are settling. Talking with [Dr Boyce] and son now. (Had been refusing to do so). Recommencing medications". Dr Boyce told the jury that he and Mrs Boyce had started talking to each other again in early October, the animosity between them had "mellowed", and she had said that she was having nothing more to do with the appellant. On 1 October 2015, Mrs Boyce texted the appellant and invited him to come and visit her in Brisbane. The next day, she addressed a message to him wishing him a happy birthday "To the love of my life, Tom".
28. On the same day, Mrs Boyce went to a lunch with two friends. Her friends both said that Mrs Boyce said she was happy she was going to become a grandmother. One of the friends said that Mrs Boyce said that her relationship with the appellant was over, while the other friend remembered her saying that she was ending the relationship. One friend said that Mrs Boyce did not say that the appellant was coming to Brisbane to visit her; the other friend could not recall.
29. On 6 October 2015, the appellant travelled from New Zealand to Brisbane. He had been encouraged by Mrs Boyce to come to Brisbane to visit, and he stayed with Mrs Boyce in her Kangaroo Point apartment. About five days later Mrs Boyce texted her son and said that the appellant had arrived the day before and that the appellant was severely depressed. Mrs Boyce asked her son not to tell Dr Boyce. Two days later she texted her son again and said "I'm trying to get Tom to go back to NZ ASAP. He just sleeps all day and drinks 2 or 3 bottles [of] red wine at night after I've gone to bed!!".
30. On 15 October 2015, Mrs Boyce texted Mr McAlpine to say that her "kiwi friends are still staying" with her so she could not see Mr McAlpine for another week. She wrote:"[t]hey won't leave. I think I will have to be rude and ask them to leave next week. I've had enough."
31. On the weekend of 16 October to 18 October 2015, Mrs Boyce went to a musical with her son. Her son described her as being in high spirits and happy to be away from the appellant for the evening. Mrs Boyce told her son that she was sick of the appellant staying with her and had been trying to get rid of him but had not yet directly asked him to leave. She took a photo with her son and asked him to post it on Facebook so that people would know that she was not depressed and was going out again. Her son said that a couple of days later she told him that she had asked the appellant to leave but that the appellant had replied that he did not have any money to buy a plane ticket back to New Zealand.
32. On 19 October 2015, at 5.28 am, Mrs Boyce sent a text message to Dr Boyce saying, "I feel all depressed again. Up at 3 am today."
33. On 20 October 2015, at 10.21 am, Mrs Boyce telephoned an acquaintance, Ms Neilson, who Mrs Boyce had not spoken to for years. Ms Neilson said that Mrs Boyce sounded "very, very down, very out—very depressed". Mrs Boyce said that Dr Boyce was returning to Brisbane from Cairns because he had stomach cancer, but was continuing to work as a doctor because they had financial problems. Ms Neilson also said that Mrs Boyce told her "I'm just very, very—very, very depressed" and "I've tried to commit suicide" and that she felt suicidal. Then Mrs Boyce abruptly ended the call with a reference to a knock at the door or another call. Ms Neilson said that she thought the call went for "probably about a minute", however it was an admitted fact at trial that the call lasted for nearly eight minutes.
34. At 1.30 pm that afternoon, Dr Spelman saw Mrs Boyce. Mrs Boyce attended with the appellant who waited in the corridor outside Dr Spelman's rooms. She was reasonably well dressed and was not expressing any depressive symptoms. Mrs Boyce told Dr Spelman that her relationship with her husband was strained but that her daughter was pregnant and the baby was due the following February. She said that she had been elevated and had been waking up very early, which Dr Spelman believed was related to her restarting her medications that she had stopped in Cairns when she had become elevated: "[t]hat was reflecting a process, she had gone back onto them". He was aware, because of the records taken by his clinical practice coordinator while he was on leave, that Dr Boyce had called the clinic with concerns on 29 September 2015 that Mrs Boyce was manic and had stopped taking medication, but that he had called again on 1 October 2015 to indicate that "[t]hings are settling" and that Mrs Boyce had recommenced medication. Dr Spelman recorded in his notes on 20 October 2015 that the apartment had not been sold, Dr Boyce and Mrs Boyce had the same agent, they had run out of advertising money, and they had not had any offers. She said she was talking to Dr Boyce every day and he was managing okay with his health. Dr Spelman did not make notes recording his discussion with Mrs Boyce about the appellant, but he said he had a reasonably good recollection. Mrs Boyce said words to the effect that she was in a relationship again with the appellant and that they were about to go to the shopping centre across the road to organise a ticket for him back to New Zealand, although the appellant was not aware at that time that he was going back alone. Dr Spelman made an appointment to see Mrs Boyce in six days' time, as he was concerned how things were going to go given that she had not indicated to the appellant why they were going to the shopping centre.
35. On 20 October 2015, a one-way ticket to New Zealand, departing on 27 October 2015, was purchased in the appellant's name. Police inquiries with the travel centre confirmed that the appellant booked the ticket on his credit card.

The events of 21 and 22 October 2015

1. On 21 October 2015, at around 11 am, Mrs Boyce telephoned Mr McAlpine and left a message on his voicemail. Mrs Boyce said that she had people visiting from New Zealand but that there was one person whom she could not get rid of, and, in what Mr McAlpine described as "almost ... a light-hearted way", she suggested that Mr McAlpine could help get rid of that person.
2. In the afternoon, Mrs Boyce went to the movies with the appellant. At around 6.30 pm, Mrs Boyce and the appellant went out to dinner because her real estate agent was going to show prospective buyers through the Kangaroo Point apartment. Dr Boyce said that these prospective purchasers had showed more promise than anyone in the preceding few months and, from what he and Mrs Boyce had been told, were "quite keen" to buy the apartment.
3. Following the inspection of the Kangaroo Point apartment that evening, the real estate agent telephoned Mrs Boyce to inform her that the prospective buyers may not purchase the apartment. The agent said that Mrs Boyce was disappointed because "she was very keen to see these buyers place an offer".
4. After speaking with the agent, Mrs Boyce telephoned Dr Boyce and said that the people who had viewed the apartment were not going to buy it and that she wanted to give the property to another agent to sell.
5. At about 7.53 pm, Mrs Boyce called the real estate agent. The agent said that they spoke about other ways to try and generate an offer by providing a bank valuation to the prospective buyers.
6. Around 8.00 pm, Mrs Boyce telephoned Dr Boyce again. Dr Boyce said that Mrs Boyce told him that the prospective buyers had said they wanted to see the bank valuation that had been done a few months earlier, and if they were satisfied with it, they would proceed to purchase the property. She asked Dr Boyce to provide her with the valuation that he had obtained from the bank so that she could show it to prospective purchasers. She said words to the effect that it was very important that Dr Boyce get the valuation to her or the agent the next morning.
7. Shortly after her phone conversation with Dr Boyce, Mrs Boyce telephoned her friend, Ms Russo. She told Ms Russo that she was stressed because a potential buyer had changed their mind about the purchase of the apartment and that she really wanted to sell the apartment. They talked about the bank valuation and discussed dropping the sale price. Mrs Boyce told Ms Russo that she would see Ms Russo on 29 October 2015 at the birthday party for Ms Russo's mother. Ms Russo followed that phone conversation with a text message urging Mrs Boyce to stay positive.
8. At around 9.30 pm, Mrs Boyce returned a phone call that she had received from her son. She told him that she and the appellant had been to a restaurant and that they had had a lovely meal. Her son said that she sounded "in high spirits" and "a little tipsy" so he asked her if she was okay. She replied that she had had a couple of glasses of wine with dinner and that she had taken her medication which had made her very drowsy. She said that she was very excited because they had a buyer for the apartment. Mrs Boyce's son could hear the television on in the background.
9. Between 10.34 pm and 10.49 pm, the computer in the office area in the apartment was accessed. A number of websites were visited, including an adult website. Adult websites had also been accessed on the computer on other dates.
10. Just before midnight, Mrs Boyce's mobile phone (an iPhone) was unlocked with the use of a PIN code. The recovered iPhone memory from that night, recorded by way of screenshots that the iPhone automatically takes and saves at various intervals when certain activities occur, did not provide a screenshot of everything viewed. But a screenshot was taken which showed Mr McAlpine's contact details, and a later one showed a text message from Mr McAlpine dated 18 May 2015. Around 12.04 am, a call was made from Mrs Boyce's iPhone to Mr East leaving a 12-second message on his voicemail, with no person speaking. Mr East was asleep and did not answer the call. Mr East had never given Mrs Boyce his phone number and did not know her well, although he was in contact with her son. He was a Facebook friend of Mrs Boyce and his settings allowed his friends to see his phone number. His phone number was in Mrs Boyce's phone contacts.
11. The time of Mrs Boyce's death was roughly estimated at between 1.45 am and 3.45 am that morning. The electronic records and CCTV footage established that no one accessed the apartment between when Mrs Boyce and the appellant returned home from dinner at 7.23 pm the evening before, and when the paramedics and police arrived the next morning. Mrs Boyce's iPhone must have been thrown from the apartment at some point after midnight. It was found by police in the vicinity of the building the next day.
12. At 5.32 am on 22 October 2015, the appellant made a 000 call from the landline phone in Mrs Boyce's bedroom next to her bed. He told the operator that he had just woken up and had found his fiancée dead. He said that he was not sure what happened. He said that Mrs Boyce had a knife in her abdomen with one of her hands on it and that she had been distraught the night before and that he had slept in another room. The appellant told the operator that he was a doctor and that he knew she was dead. He said that it did not look like there had been any forced entry to the apartment and that the wound was "self-induced", from what he could tell.
13. The paramedics and the police arrived at the apartment at 6.06 am. Mr Weijers, an advanced care paramedic, entered the bedroom. Mrs Boyce was lying in her bed. Mr Weijers moved a pillow from on top of Mrs Boyce to assess her. He was unable to detect a pulse and observed other signs of death, so he did not provide any further medical care.
14. Mrs Boyce died from the loss of blood caused by a stab wound from one of her kitchen knives which had a blade that was 19.5 cm long. She was lying on her back but partially on her right-hand side. The entirety of the blade and part of the handle had been pushed into her abdomen. She was partially covered by a flat sheet and a duvet. The blade was embedded in her body through the flat sheet. The tip of the blade had penetrated the entire body and was protruding out the back. Her left hand was on the handle of the knife and her right hand was under a pillow behind her head. There was blood on the knife handle, on the area around the wound and on Mrs Boyce's left hand, but not on her right hand. Her blood alcohol level at the time of death was found to be 0.049 and the levels of drugs indicated therapeutic or sub-therapeutic levels of her medication: diazepam (a sedative); nordiazepam (a metabolite of diazepam); amlodipine (to deal with hypertension); olanzapine and venlafaxine (to lessen anxiety). The sheets were tucked in under one side of the bed, consistent with her having slept alone.
15. In the lounge room, outside the bedroom where Mrs Boyce was found dead, there was a half-empty bottle of red wine on a coffee table with two wine glasses: one was half-full and the other "just had dregs in the bottom of the glass". In the kitchen there was an empty wine glass and a tin of coffee on the counter. In the dining area there was a coffee cup and some change.
16. Mrs Boyce left the entirety of her estate to her children.

The appellant's interviews with police

1. The appellant was interviewed a number of times on 22 October 2015. The transcripts of those interviews were before the Court. Many of his statements in those interviews were corroborated by other evidence. For example, his statements concerning: the history of his relationship with Mrs Boyce; their reconnection in 2013; trips that they had made together; his relationship with Mrs Boyce's son; his account of Mrs Boyce's mental health; his account of Mrs Boyce's relationship with her daughter; and his account of his and Mrs Boyce's movements on 21 October. There was also a number of discrepancies in statements that he made in the interviews including: he said there was "weird texting" going on but there was no evidence that Mrs Boyce sent any text messages on the evening of 21 October; he appeared to suggest that he was able to read out the names of contacts from his phone despite claiming earlier that the phone had been locked by Mrs Boyce while he was in the bathroom, such that he could no longer access it; at one point he seemed to say that he had a coffee when he woke up but at another he said he did not; and he initially said he did not recall which of two balconies the phone was thrown off, but then remembered during his second formal interview.
2. The appellant's first interaction with the police when they arrived at the Kangaroo Point apartment on 22 October 2015 was recorded. The appellant was asked to describe the events of the previous night. He explained that he had been out to dinner with her and that she had heard the news that her apartment was not going to be sold and he then said:

"So ah, so she was very distraught last night. Drunk a lot of alcohol, took some pills, she's had psychiatric history in the past, E-C-T a couple of times. Her husband's a doctor. Her son, our son that we had together thirty-two years ago, he t-, he, he ah, he's in the building here on the sixth floor. I would have called him and/or her husband or anybody, but my s-, phone's been blocked. I can't even access it. Last night, she was very distraught. She got into my phone for something, saw a call from my aunty who's eighty years old, and thought there was something going on, was very upset. Um, I tried to explain it was my eighty old aunt who was taking care of my mother. I'm just trying s-, trying to keep the sequence here. At about 9 o'clock, she took her cell phone and just winged it off the balcony somewhere, said she was going to bed and wanted me, for the first time this has ever happened, asked me to sleep at the other end of the house. I--"

1. The appellant said that Mrs Boyce went to bed at around 9.30 pm and that he went to bed probably at around 11.00 pm. He said he went in and "gave her a kiss goodnight, tucked her in and that was it. I haven't seen her since till just this." When he woke up he "went to the bathroom, made a cup of coffee, went in to give her a kiss, and that's what I found". He called emergency services using the landline phone in her bedroom. He said that she had "got into my phone somehow" and blocked it so that he couldn't use it.
2. When the police asked about alcohol and pills, the appellant said that Dr Boyce would know best, and that "[u]m, over the last year, I think she's had E‑C‑T ... twice. She saw [a] psychiatrist a few days ago. Three, three [or] four days ago she woke up and said she felt like she was gonna die, wanted to die, but then by the end of the day she was fine. And in fact, when she went and saw her psychiatrist, she was in pretty good shape." He later explained that the day before she saw the psychiatrist she had woken up at 3.00 am in the morning, "she's been waking up crazy hours, said she felt like she was, wanted to die. By the afternoon, she was, said he [sic] felt fine ... [s]he came out [of the appointment with Dr Spelman the following day] saying that he was happy with how well she was doing". The appellant said Mrs Boyce had had suicidal issues in the past, but not that he had seen recently. The appellant said they had been making salad "the other day" and she had commented on the knives, "[s]he just said they're, you can cut your finger off, she said, like that. They're so sharp."
3. Of the evening before, the appellant said "I had no idea she was that distraught, but I knew something was wrong when she threw her cell phone off the balcony ... she went berserk over a, a text from my aunt ... [s]he thought I was having an affair". He said that "she had been, ah she may have been, been having another affair on the side for all I know ... there was some weird texting going on last night and she alluded to something, but I couldn't put two and two together, but when I asked about it, she just, you know, got very agitated ... That's the last time I saw her, was like 9.30, 9.45, something like that." He said that she had taken her regular medicines, and he thought some Valium and alcohol, the previous night. He also said that "[s]he was really disappointed that the people didn't buy her place", that she had taken it "really personally" and that "[s]he called a couple of friends last night and asked what to do, 'cause she c-, she was frustrated". The throwing of the iPhone off the balcony was "unusual behaviour". He wasn't sure which balcony she threw her iPhone off—"there's like five balconies here ... it was either this one or that one".
4. The appellant explained that "[s]omething had come up during the day about, that she might have been having an a-, ... even though she's married to Graham ... [a]nd we were engaged to get married". He explained that she was still married, but that Mrs Boyce and Dr Boyce had been separated for "she said at least twenty years or something". The appellant said that he and Mrs Boyce had a son together, but that he didn't know about it until two years ago. He said that they had just got a ticket for the appellant to go back to New Zealand the following week.
5. The appellant provided further details in the two formal interviews at the police station later that morning and that afternoon. He told the police that he and Mrs Boyce had planned to get married before Christmas, and that she was going through a divorce process with her husband. He said that she had been suicidal in the past but had been "pretty good" until the morning a few days before, when she woke up at 2.00 or 3.00am and said she wanted to die again. By noon she suddenly seemed fine. The appellant said that she went to an appointment with her psychiatrist the next day and "[s]he came out like [her psychiatrist] patted her on the back and said you're doing great. I said well didn't you tell him that you wanted [to] die like you know only twenty four hours before that. And she said no I didn't mention it." He believed that she might have spoken to Dr Boyce about it; she talked to Dr Boyce a couple of times, every day. He repeated that, when they were chopping up a salad some days earlier, she had said something about "how expensive the knives were and how super sharp they were and how you can cut off fingers and things very easily".
6. The appellant said Mrs Boyce was in "great spirits" at dinner until the real estate agent called her to tell her the prospective buyers thought the place was too big for them. He said she took it like a personal insult and he tried to keep calming her down. The appellant suggested that she get the place "spiffed up" and not be there, so she didn't have to set it up every single day. The appellant said Mrs Boyce agreed and said she would come to New Zealand in a couple of weeks but that the appellant had to buy her a ticket because she was out of money and had "run out all her credit cards".
7. The appellant said that he and Mrs Boyce left the restaurant at 7.00 pm and returned to her Kangaroo Point apartment. In the period of around two hours between returning home and Mrs Boyce going to bed, Mrs Boyce made some phone calls and started watching a television show called "Bachelorette". He said that Mrs Boyce had asked him to record the "Bachelorette" show for her, which he thought had started airing while they were still out for dinner. When they got home, they put on the recording but had the sound turned off because Mrs Boyce kept making phone calls. She spoke on the phone to Ms Russo, Dr Boyce and the real estate agent. He thought that the show finished around 9.30 pm.
8. While the "Bachelorette" show was on television, and the appellant was in the bathroom, Mrs Boyce saw a text message on his phone from "Laurel", who was his aged aunt. He said that when he came out of the bathroom his phone (which was a basic flip phone without a PIN code) had been locked and was asking for something that he described as an "OPKU" code (an investigative computer analyst was later able to access information on the SIM card for the appellant's mobile phone after a police officer obtained a PUK code from the mobile carrier in New Zealand).
9. The appellant said that Mrs Boyce would not accept that "Laurel" was his aged aunt, and that Mrs Boyce began listing off names of people who were in the appellant's phone contacts. She "[i]mplied there was an affair or something going on" and he observed to the police that "she may have been actually having another affair besides me for all I know. It had come up earlier in the day.". He thought that "there might have been some guilt involved or something but it was really strange the way she reacted about the cell phone".
10. The appellant later explained that the thing that had come up earlier in the day was that Mrs Boyce had said to him: "I'm going to hook back up again with that Kenneth guy". "Kenneth" (Mr McAlpine) had apparently been a "fix it guy, handy man" and they had had affairs on and off. She said "well I'm going to call Kenneth and have him [INDISTINCT] fix up the place". In his interviews with police, the appellant said that that comment was "like a little stab you know?" and later said again "[i]t was a real stab in the back in a way, oh terrible thing to say". He said there was "a [jealousy] factor" building up from earlier in the day and a distrust. "She knew I knew about Kenneth ... she told me they haven't had contact in months and then she said I just got a hold of Kenneth and he's going to come fix everything". He said he thought she had been texting Mr McAlpine and that something was still going on, and "why she was getting suspicious about me is the way of putting off me thinking about her". At various points in his interviews the appellant said that he thought that Mrs Boyce may have been having an affair. He also said that his "heart went out" to Dr Boyce, and "[i]n fact I asked her the other day if, if we're engaged how, how can I be tru-, how can be she be totally trusted if she's doing this to her husband?". He said, "[s]o that's the damage that [INDISTINCT] came up".
11. After Mrs Boyce had asked who Laurel was, the appellant said something about "well why did you bring this thing up with Kenneth you know? Would you want me to go through your cell phone and all that?". The appellant said that he attempted to allay Mrs Boyce's suspicions by telling her how dedicated he was to her, and that he had put his practice in New Zealand on hold two years earlier so that they could be together.
12. The appellant said that Mrs Boyce remained suspicious that he was having an affair. He said that he suggested to Mrs Boyce that she would not want him to look through her phone and that she responded by throwing her iPhone off the balcony. The appellant said that should have been the "red flag" because the iPhone was her "lifeline". The appellant said that this happened at around 9.30 pm or 9.45 pm.
13. The appellant said that Mrs Boyce soon calmed down and wanted to kiss and make love. The appellant agreed when the police suggested that that seemed like a big shift: "Yeah well it was and I, it was hard for me to you know, reciprocate completely". She started to hug and kiss the appellant but then changed her mind and said that she was tired and wanted to go to bed. The appellant kept his belongings in a spare bedroom in the apartment, which was not the main bedroom where Mrs Boyce slept. He said that he had slept in the same bed as Mrs Boyce during his stay but that, on the evening of 21 October 2015, she wanted to be alone and, for the first time, asked him to sleep in the spare bedroom. He said that Mrs Boyce went to bed at around 9.30 pm, that he kissed her goodnight, and that he went to bed at around 11.00 pm.
14. The appellant said that he slept with ear plugs (which were seen in the bedroom by a police officer interviewing the appellant) due to Mrs Boyce's snoring and because "she would wake up at 3.00, 5.00 in the morning". He said he woke up at around 5.30 am, which was earlier than usual because the balcony doors were open in the spare room, the road noise was pretty loud and it was bright with the curtains up. He went into the ensuite bathroom of the master bedroom (where his toiletries were located, and which he used while the apartment was being kept tidy to show to prospective buyers), made a coffee (which he said was made for her, although he later said that he "never got to a cup of coffee" but might have put the kettle on), then went to the bedroom to give her a kiss, and that was when he found Mrs Boyce's body.
15. At various points during the police interviews the appellant made comments about the history of his relationship with Mrs Boyce and what his hopes had been for the future. He said Mrs Boyce was "the most beautiful wom[a]n I've ever met in my life, from the day I met her". When she had left him in the United States decades earlier he was "devastated that everything had disappeared. Kind of like today and I took about two months off in medical school and almost didn't graduate ... [i]t was just so devastating to me". He said they were "crazy in love" back in the 1980s and she had kept every letter he had written her all those years. After they reunited in 2013 he "put everything on hold" and put his medical practice aside, because they were "going to do all this back then" but then she had gone into hospital for psychiatric treatment. They got engaged in October or November 2013 and he bought her an engagement ring. She said she had loved him all those years they were apart and he felt the same way. It had "not been easy", but "when she's great, she's great ... she's a stunning person". He then commented, "but the stress was doing something to her. I, I saw things in her ... [t]his visit that I had not seen"**.** He said that until Monday morning earlier that week, Mrs Boyce had seemed "pretty happy" and "we were really positive about the future and everything and she was last night still thinking you know, we'd be getting a house before Christmas in ... New Zealand". He said she was "very keen" on moving to New Zealand. He said "I've been waiting for this to happen for two years and I thought we were finally getting there". The appellant said "I loved her, I was looking forward to, I don't even know where my future is now" and "I hinged everything on her, getting married in a couple of months".
16. Towards the end of the first formal interview, the appellant was asked what he thought had happened to Mrs Boyce. He responded, "I think she got really distressed last night and killed herself", and then said "It was nice work really if you were to [INDISTINCT] you can see there but they were razor sharp ... I've never seen knives so sharp in my life." When asked if he stabbed Mrs Boyce, he said "No I did not stab Maureen ... I love that lady ... With all my heart and I thought we were finally getting close to fulfilling our dreams."
17. Towards the end of the second formal interview, the appellant was informed that detectives had spoken to Mrs Boyce's son who had told them that Mrs Boyce was quite keen for the appellant to go back to New Zealand. The appellant confirmed that was the case, explaining that Mrs Boyce had thought he was making it more difficult for her to sell the apartment. The appellant was then told that Mrs Boyce's son had said that Mrs and Dr Boyce were back together, and that she was selling the apartment in order for them to buy a new place and move in together. The appellant said, "That's news to me ... That's news to me ... Yeah I've, I've been waiting for this to come to fruition for two years and this is shocking that ... This whole thing was a fraud in the first place ... She almost had be [sic] put eighty thousand dollars on a house to hold, which would have been lost in Tauranga just a few weeks ago but I said I didn't want to do it because we didn't know how long it was going to take for her to ... [s]ell her place. She had a lot of secret stuff going on cause I know there was something going on with this other guy too." He said some time later, "Obviously there's a lot I didn't know. This, this thing with Graham just, I, I honestly."

The prosecution and defence cases

Mrs Boyce's mental state on 21 October 2015

1. In a trial in which the only two possibilities were that the appellant murdered Mrs Boyce or that Mrs Boyce committed suicide, the prosecution argued that, on 21 October 2015, Mrs Boyce was not in a depressed state and was not having suicidal ideation, still less was there any likelihood of her acting upon any such ideation.
2. The prosecution relied upon the evidence that Mrs Boyce had been to the movies on the afternoon of 21 October 2015 and had been out to dinner that evening. The prosecution also relied on the evidence of Dr Spelman that in his session with Mrs Boyce on 20 October 2015 he considered that Mrs Boyce was not exhibiting any depressive symptoms, and evidence that she was planning for the future such as by telling Ms Russo that she would see Ms Russo at a forthcoming birthday and by asking Dr Boyce to obtain the valuation for the apartment. Dr Spelman said that the pregnancy of Mrs Boyce's daughter was going to be a significant protective factor in reducing her suicidality.
3. On the other hand, Dr Spelman said that Mrs Boyce had not told him about Mrs Boyce's daughter telling Mrs Boyce that she would never meet her grandson or the fact that Mrs Boyce's daughter was not speaking to her. By extension, he would not have known that over the two-week period before Mrs Boyce's death she had sent texts to her daughter but had not received any replies. And there was no suggestion that he was aware of Mrs Boyce's conversation with Ms Neilson only three hours prior to the appointment during which Mrs Boyce told Ms Neilson that she was very depressed and felt suicidal.
4. The defence also pointed to the difficulty others had detecting signs of Mrs Boyce's depression. An example given was the evidence of Ms Tilse who had known Mrs Boyce for over 30 years. Ms Tilse described Mrs Boyce's demeanour in May 2015 at the wedding of Mrs Boyce's daughter as "very happy" and said that she was "up dancing and chatting to everybody". Later Ms Tilse said that Mrs Boyce had told her that she was feeling very depressed at the wedding.
5. In this Court, the appellant also submitted that the reliance on evidence said to demonstrate that the deceased was not in a depressed state at the time of her death was based on flawed reasoning, because people do not commit suicide only when they are in an observably depressed state. In cross-examination, Dr Spelman acknowledged that, while a person's risk of suicide can be assessed by making observations and identifying protective factors, whether a person is going to commit suicide cannot be predicted at any given point in time. He agreed that it is particularly difficult to make an accurate prediction in relation to persons who suffer from both bipolar disorder and borderline personality disorder, given the instability and impulsivity that comes with the confluence of those disorders.

The appellant's alleged motive for murder

1. The prosecution alleged that the appellant's motive for murder was that Mrs Boyce was "the love of his life" but that he had discovered on the evening of 21 October 2015 that he had been betrayed by her. The appellant had described the first time that Mrs Boyce had left him, in the United States, as devastating. In October 2015, he had thought that they were going to get married in a couple of months and that she was going to come to live permanently with him in New Zealand.
2. The appellant had said in his police interview that he had argued with Mrs Boyce on the evening of 21 October 2015 and that there were "lots of stupid arguments" that day. The appellant said that since he and Mrs Boyce had reconnected and become engaged, he had never been with another woman but that "this Kenneth guy ... she must have been still seeing him". The appellant also said that he had seen Mrs Boyce texting Mr McAlpine when she was at his house in New Zealand, and he expressed doubt regarding whether Mrs Boyce was telling the truth when she told him that she and Mr McAlpine had parted ways after her engagement to the appellant.
3. The prosecution argued that the appellant had, around midnight, scrolled through the text messages between Mrs Boyce and Mr McAlpine, and discovered that his plans with Mrs Boyce for the future were "just an illusion". For the appellant, "history was repeating itself, he was being betrayed by her for the second time, not the first", and this discovery "tipped this man over the edge", driving him to take the knife from the kitchen and to murder Mrs Boyce who lay asleep in her bed.
4. The defence case was that if the appellant had not seen the text messages in the five-minute period in which the text message application was accessed then the appellant had no motive to murder Mrs Boyce. The defence submitted that the strength of the appellant's motive was therefore strongly related to the part of the prosecution case concerned with the lie in his police interviews.

The lie in the appellant's interviews with the police

1. The prosecution argued that the statement by the appellant that Mrs Boyce threw her iPhone off the balcony at around 9.00 pm (or 9.30 pm, or 9.30 pm to 9.45 pm)—a phone which, as the appellant had described it, was her "lifeline"—was a lie. The prosecution asserted that the reason for the lie was so the appellant could disguise the fact that he had thrown Mrs Boyce's iPhone over the balcony some time after 12.04 am on 22 October 2015 when the appellant had accessed Mrs Boyce's text messages. The prosecution called expert evidence to prove that Mrs Boyce's iPhone was accessed for eight minutes between 11.56 pm and 12.04 am.
2. Expert evidence was given by Mr Robertson, an investigative computer analyst for the Queensland Police Service with qualifications including certifications from mobile phone forensics companies. He was provided with Mrs Boyce's smashed mobile phone which was an Apple iPhone 4 and the appellant's mobile phone which was a Samsung GT-C3590. He was able to access the information on Mrs Boyce's iPhone by swapping the memory board and inputting the PIN code. He explained that the iPhone contained 651 contacts and 2163 text messages. Other than a reduction in battery power and access to the address book of the iPhone at about 9.30 pm, no activity was recorded by the iPhone between 9.30 pm and 11.56 pm.
3. The iPhone memory revealed that it was unlocked by the entry of a PIN code at 11.56 pm on 21 October 2015. Starting from 11.58 pm the text message application was opened, at least one text message was opened, and a contact was accessed from the iPhone's contact list. The contact was for Mr McAlpine ("Kenneth") with a phone number. The text message that was opened on Mrs Boyce's iPhone at 12.03 am was a message from Mr McAlpine from 18 May 2015:

"I truly think we would do each other a world of good to catch up and spend casual time together, realising we are both okay ... If we want to be ourselves. I miss you heaps x O x Don't be shy. Remember how good and easy it is for us."

After that five-minute period in which the text message application had been opened, at 12.03 am the iPhone was returned to the home screen by the pressing of the home button. There was then an outgoing call at 12.04 am from the iPhone for 12 seconds, which corresponds with the silent message left on Mr East's voicemail. At 12.06 am the iPhone was then locked again. There was no evidence that the iPhone was unlocked and accessed again before it was found at the bottom of the building at around 7.21 am on 22 October 2015 by the police.

1. A difficulty for the prosecution theory that the appellant had accessed Mrs Boyce's iPhone by himself at around midnight while Mrs Boyce was asleep and then threw it off the balcony is that Mrs Boyce's iPhone needed to be activated by pressing the home button and inserting a PIN code. The appellant's fingerprint was located on Mrs Boyce's iPhone but it was not found on the home button of Mrs Boyce's iPhone. The fingerprint was an imprint of his right middle finger, horizontal on the bottom of the phone towards the edge and away from the home button.
2. The supposition of the prosecution that the appellant might have seen Mrs Boyce's PIN code (which was 0852, corresponding with all the middle numbers in the keypad) fails to explain why the appellant's fingerprint did not correspond with any of those numbers (or the home button) or why the appellant's fingerprint was located on the bottom of the iPhone to the side, away from those numbers. Further, despite nearly 40 years of marriage, Mrs Boyce never told Dr Boyce the PIN code to her iPhone. Senior counsel for the appellant submitted in this Court that it was even less likely that Mrs Boyce would have told the appellant her PIN code in circumstances in which she was having a relationship with Mr McAlpine and had not, as the appellant believed, ended her relationship with Dr Boyce.
3. The defence case at trial was that the appellant did not lie about Mrs Boyce throwing her iPhone off the balcony at the various times he gave between 9 pm and 9.45 pm, but rather that he was confused about the time when that had happened, and that the events he had described in his police interviews occurred some time after midnight. Before this Court, senior counsel for the appellant maintained that submission but also submitted, consistently with the directions that the trial judge had given, that any lie by the appellant is not necessarily circumstantial evidence of guilt.

The forensic evidence generally

1. The prosecution relied on evidence that Mrs Boyce was found with her right hand under a pillow (with no blood on it) and her left hand loosely touching the handle of the knife in her abdomen, with the 19.5 cm blade inserted entirely in her abdomen. The appellant said in his police interview that Mrs Boyce was right-handed, and Mrs Boyce's son gave evidence that Mrs Boyce was right-handed and had arthritis in both of her hands that prevented her from opening jars and would sometimes cause her to drop things.
2. On the other hand, the defence pointed to the absence of forensic evidence that supported a conclusion that the appellant had murdered Mrs Boyce. In particular, there were no fingerprints located on the handle of the knife taken from Mrs Boyce's body. Only Mrs Boyce's DNA was on the handle of the knife.
3. There were also no other injuries to Mrs Boyce apart from the knife wound including no bruising to her body detected by forensic equipment that can detect bruising that is not visible to the eye. The appellant's DNA was not detected underneath her fingernails or anywhere on Mrs Boyce's body, apart from on her breasts, which was accepted by the prosecution as being consistent either with her being in a relationship with the appellant and there being some interaction between her and the appellant earlier that night, or with the appellant's contact with her while she was on the bed before he telephoned 000. A forensic medical examination of the appellant on 22 October 2015 when Mrs Boyce died revealed no injury or forensic evidence relevant to Mrs Boyce's death. The appellant's clothing was seized by police on 22 October 2015 and forensically examined but no forensic evidence relevant to Mrs Boyce's death was found. Police searched the contents of the bins in the apartment and the building's bin accessible by a garbage chute in the apartment, and found nothing of relevance to Mrs Boyce's death.
4. Mr Esaias, a forensic scientist for the Queensland Police Service, gave evidence about the blood at the scene. There was no blood staining Mrs Boyce's right arm or anywhere on her right hand or under the pillow that her right hand was under. There was blood on her left hand, classified as a transfer stain, indicating that it had come into contact with a blood stain. There was a significant amount of blood staining around the bottom of the knife, as well as a large saturation stain around the knife.
5. A pillow pushed up against Mrs Boyce's body had a saturation stain which Mr Esaias thought was the result of blood absorbing from the main stain around the wound. This pillow also had a drip stain. The pillow at the end of the bed near Mrs Boyce's feet, which had been moved by Mr Weijers, had a saturation stain indicating that it had been in contact with a liquid blood source, and 15 small circular stains measuring 1 to 3 mm in diameter. Mr Esaias said that the small stains had characteristics of blood being projected through the air, but that there was more than one plausible mechanism or way that they could have been deposited: "[c]ould be coming off an object, could be coming off a person, could be coming off an item of clothing". There were also two drip stains on the carpet a short distance from the side of the bed.
6. After Mrs Boyce's body was moved, Mr Esaias examined the fitted bottom sheet on the bed. He observed there were four severances or cuts in the fitted bottom sheet, as well as a saturation stain on the sheet. In cross‑examination, Mr Esaias agreed that the stain was not consistent with bleeding having occurred at the same time as a struggle. He said that the saturation stain was the result of "the slow release of blood from the wound over—over a period of time with the wound in a—pretty much a set fixed position with minimal movement".

The forensic evidence of Dr Ong

1. Dr Ong is a specialist forensic pathologist, working for Queensland Health Forensic and Scientific Services, who gave expert evidence in relation to a number of discrete topics. His expertise is considered later in these reasons but it suffices here to summarise the different aspects of his forensic evidence.
2. The most significant part of Dr Ong's evidence for the prosecution case was the opinion that he expressed after his lengthy examination of the nature of the stab wound and its internal effects. That evidence is the subject of the second ground of appeal. It suffices at this point to say that the prosecution relied on the fact that, although there was only a single external entry wound, internally there were two major tracks, Track A and Track B. Between Track A and Track B, the knife had been partially withdrawn (with an estimated three or four centimetres remaining in the body), the blade rotated, and the knife plunged in a slightly downward direction. Dr Ong's opinion was that although he could not "completely eliminate" the possibility of a self-inflicted injury, "it [was] more likely that this wound [was] caused by a—a second—a different person or a second—a different party".
3. Some aspects of his evidence were relied upon by the defence. Dr Ong was satisfied that Mrs Boyce's arthritis would not have prevented her from inflicting the injuries. Dr Ong said that on a scale of mild, moderate and severe the degree of force used to inflict the wound to Mrs Boyce's abdomen was mild to moderate. He said that, other than any impact with a rib, the point of greatest resistance for the knife would be the entry to the skin.
4. Dr Ong indicated that Mrs Boyce could have held the knife with either hand when inflicting Track A, because there would be no blood at that stage, but that he would have expected the knife handle to become stained with blood for Track B. He said that at the initial stages of the stabbing, it was possible that both hands were involved, but that at the later stages, it may only have been the left hand. However, he also accepted that it was possible that when inflicting Track B, Mrs Boyce had held the knife with both hands but with her right hand higher on the handle than the left so that the right hand did not get blood on it.
5. The defence also relied on Dr Ong's evidence that Mrs Boyce was alive when she was stabbed and that she had not been smothered or strangled. Dr Ong's evidence was that the stabbing to Mrs Boyce's abdomen would have been "probably painful". He said that it would have induced a physiological fight or flight response which could involve fighting back or calling for help. Dr Ong said that the sedative effect of the combination of the alcohol and medication in Mrs Boyce's body was unknown because it depends on subjective factors. He agreed that the level of drugs and alcohol in her system would not have prevented her from fighting back.
6. Dr Ong also said that given the internal structures that were severed by Track A, his opinion was that during the stabbing involved in Track A the body could have been slightly bent, as though in a crouching position. Track A was also longer than the blade of the knife, which Dr Ong said could be explained by the tissues being compressed or by a crouching or bending of the body. Mrs Boyce could have been crouching forward, or crouching sideways, on the mattress. This was relied upon by the appellant because it suggested that, contrary to the prosecution case, Mrs Boyce may not have been asleep at the time of the wounding and, given that Mrs Boyce was found lying on her back with one arm raised and the other on the knife, it was said to show that after being stabbed she had moved to this new position.
7. Dr Ong said that none of Mrs Boyce's injuries was capable of immediately disabling her or preventing her movement. He said that the "serious consequences" from the blood loss would have occurred after about 15 minutes, although he accepted that unconsciousness could occur after as little as five minutes. It would have been at least a number of minutes before she was weakened to the point of not being able to move. He said that the bleeding was profuse but would have involved a slow seepage over time.
8. The defence relied on these matters because, despite forensic and chemical testing on the sinks, toilets, carpets, walls, and other areas, there was no blood found anywhere in the apartment other than Mrs Boyce's bed and a couple of drops on the carpet adjacent to the bed. While there were some initial positive results for blood in other areas using "TMB" (described as "the blood-screening chemical" or a presumptive test, which can react to biological and non-biological substances other than blood, including "[t]ypical things in a house" such as cleaning products, bleaches, metal surfaces), there was no evidence of positive results in those other areas using HemaTrace (a confirmatory test for blood). There was no blood on the landline phone on the bedside table beside her bed. And no blood was found on the appellant's body or his clothing, in circumstances where Dr Ong had given evidence that he expected the handle of the knife would have been stained with blood by the time of infliction of Track B and Mr Esaias had given evidence of blood stains on one of the pillows having the characteristics of blood being projected through the air.

The first ground of appeal: unreasonableness of the guilty verdict

1. The test for whether the verdict of the jury was unreasonable is well established by the consistently affirmed[[35]](#footnote-36) decision of four members of this Court in *M v The Queen*[[36]](#footnote-37). The issue, in the terms they expressed in *M v The Queen*,is whether[[37]](#footnote-38):

"If the evidence, upon the record itself, contains discrepancies, displays inadequacies, is tainted or otherwise lacks probative force in such a way as to lead the court of criminal appeal to conclude that, even making full allowance for the advantages enjoyed by the jury, there is a significant possibility that an innocent person has been convicted, then the court is bound to act and to set aside a verdict based upon that evidence."

1. As this Court said in the circumstantial case of *Coughlan v The Queen*[[38]](#footnote-39), an assessment of whether a verdict is unreasonable and therefore whether a miscarriage of justice occurred requires this Court "to weigh all the circumstances in deciding whether it was open to the jury to draw the ultimate inference that guilt has been proved to the criminal standard" and to assess whether "the prosecution has failed to exclude an inference consistent with innocence that was reasonably open". In doing so, this Court must respect the advantages of the jury including in seeing and hearing audio-visual recordings (which, on this appeal, were not before this Court) as well as assessing the credibility of witnesses[[39]](#footnote-40).
2. In the circumstances of this case, the critical question is therefore whether, on an examination of the whole of the evidence, the prosecution failed to exclude as a reasonable hypothesis that Mrs Boyce committed suicide.
3. Only the appellant or Mrs Boyce could have inflicted the wound. The critical evidence that raised Mrs Boyce's suicide as a possibility was the forensic evidence relating to the circumstances of the stabbing and Mrs Boyce's death. By contrast, the four core parts of the prosecution case that, considered in light of all the evidence, supported the appellant having murdered Mrs Boyce rather than Mrs Boyce having committed suicide were: (i) the unlikelihood of Mrs Boyce committing suicide; (ii) the appellant's motive for murder; (iii) the appellant's lie; and (iv) Dr Ong's evidence and the nature of the injury.

The circumstances of the stabbing and Mrs Boyce's death

1. The critical evidence raising suicide as a possibility was the forensic evidence of the circumstances of the stabbing and of Mrs Boyce's death, including that for a period of at least a number of minutes, and likely between five and 15 minutes, after the wound was inflicted, Mrs Boyce lay on the bed, moving a little, before she lost consciousness. In that time she was capable of movement and capable of resisting. But there was no blood in any location apart from the bed and drops adjacent to the bed. There were no injuries to Mrs Boyce consistent with any sign of a struggle and no injuries on the appellant relevant to the death of Mrs Boyce. There was no evidence of a struggle before or *after* the wounds were inflicted, or an attempt to seek help, such as by using the landline phone beside her bed to ring for assistance. There was no evidence connecting the appellant to the scene of the death. The scene was consistent with suicide and in many ways inconsistent with murder.
2. The prosecution sought to exclude suicide as a reasonable inference in these circumstances by submitting that Mrs Boyce "was likely to have been knocked out ... sedated and heavily asleep by a combination of alcohol, Valium and fatigue when she was stabbed". It can be accepted that, unless she was awake and stabbing herself in the abdomen between 1.45 am and 3.45 am on 22 October 2015, Mrs Boyce would likely have been asleep at the time of the stabbing**.** But the prosecution led no pharmacological or other expert evidence to suggest that in that state Mrs Boyce could have slept through being stabbed in the abdomen with multiple thrusts and remained asleep for the five to 15 minutes that it would have taken for the seepage of blood to induce unconsciousness or death. To the contrary: the level of alcohol in Mrs Boyce's blood at the time of death was lower than the legal driving limit; the level of diazepam [Valium] in her blood was at "therapeutic or sub-therapeutic levels"; the evidence of Dr Ong was that the wound would have been "probably painful"; Dr Ong said that the wounding would have triggered a physiological fight or flight response; and there were suggestions that Mrs Boyce had been awake from the blood transfer stain on her left hand, and that she had moved from a crouching position at the time of the infliction of the wound to lying on her back at the time of death, with the lower part of her body rotated towards the right and her right foot hanging over the edge of the bed.
3. There remains only the possible speculation that Mrs Boyce had woken up after being stabbed but had remained on the bed for five to 15 minutes, despite a physiological fight or flight response. Whilst it can be accepted that Mrs Boyce may well have been affected to some degree by the low levels of alcohol and diazepam in her blood, and that if she had been stabbed by the appellant she would have been suffering pain and shock, there must nevertheless be doubt that Mrs Boyce's failure to make a telephone call from the landline phone beside her bed could be explained by the appellant's continuing presence in the bedroom either with the use of force or as a menacing presence standing over her. This is because: (i) there was no evidence of any history of any violence or intimidation exerted by the appellant over Mrs Boyce; and (ii) the evidence did not support any conclusion that Mrs Boyce had been held down because there were no defensive injuries or bruises, there was no evidence of a struggle and no forensic evidence on the appellant relevant to Mrs Boyce's death.
4. We do not consider that the appellant was required to answer any other explanation at trial. The prosecution did make the submission, in closing (and which we have addressed above), that after stabbing Mrs Boyce the appellant "stood over her" and described the defence questions to Dr Ong as being that the response of Mrs Boyce would be "fight or flight or paralysed, in fear". But that was not the question put to Dr Ong, nor was it his answer. The questions asked of Dr Ong in cross-examination, and the evidence given by Dr Ong, were that Mrs Boyce would have experienced a physiological "fight or flight" response. He did not give evidence about a "freeze" response. Senior counsel for the appellant thus, correctly, pointed out in her closing submissions to the jury that "nowhere in any of [his evidence about physiological responses] did Dr Ong talk about a freeze response in the context of an immediately life-threatening injury". Senior counsel for the appellant, in her closing submissions to the jury, also responded to the possibility that the jury might think, despite the absence of evidence on the subject, that being paralysed with fear was "a reasonable response" based on their "ordinary understanding of human behaviour". She explained that this was "not at all a reasonable ... response to an immediately life-threatening injury. One does not get stabbed and think the way to get through this is to freeze until it's over". Further, the question of whether this was a reasonable response or not (by people generally or by Mrs Boyce in particular) was not put to Dr Ong or Dr Spelman. Whether or not it was due to the absence of any suggestion to any witness that Mrs Boyce might have "frozen" or the reasonable possibility of such a response, such that the defence was not required to meet such a case, a "freeze" response is not referred to in the reasons of the Court of Appeal and the respondent did not rely upon, or mention, this as a possibility in this Court.
5. These circumstances of the stabbing and Mrs Boyce's death provide support for the defence case that the prosecution had not proved beyond reasonable doubt that Mrs Boyce was murdered. On the other hand, the following four matters support the prosecution case.

(i) The unlikelihood of Mrs Boyce committing suicide

1. As to the first core aspect of the prosecution case, the prosecution contended that: (i) Mrs Boyce was not suffering from symptoms of depression on 21 October 2015; (ii) she was unlikely to have had any suicidal ideation; and (iii) she was unlikely to take action upon any ideation to commit suicide.
2. The first two aspects of this part of the prosecution case were not particularly strong. The psychiatric evidence of Dr Spelman upon which it was based was premised upon the existence of the "protective factor" of the prospective birth of a grandchild, but the threat from Mrs Boyce's daughter that Mrs Boyce would not see her grandchild was not known to Dr Spelman. On the other hand, the evidence was that it was not infrequent that Mrs Boyce and her daughter would go through periods of not speaking to each other and it appeared that similar things had been said in the past, including in March 2015 when Mrs Boyce had said in a text message that she was upset that her daughter had said she was not invited to her wedding (which she did attend in May 2015).
3. More significantly, the prosecution case that Mrs Boyce was not in a depressed state was weakened by the evidence of the text message sent by Mrs Boyce to Dr Boyce at 5.28 am on 19 October 2015 saying that she was "feel[ing] all depressed again" and had been "[u]p at 3am today". This text message and the timing of it were consistent with the appellant's account, during his police interviews, of Mrs Boyce waking up in a depressed state at 2.00 am or 3.00 am the day before she attended the appointment with Dr Spelman. Consistently with what the appellant said to police, Mrs Boyce did not tell Dr Spelman at the appointment that she had experienced depressive symptoms the day before.
4. The prosecution case was further weakened by the evidence of Ms Neilson about her unexpected phone call with Mrs Boyce only three hours before Mrs Boyce met with Dr Spelman. Ms Neilson gave evidence that Mrs Boyce said that she "feels suicidal" and was "very depressed". She also gave evidence of other details that Mrs Boyce had told her during their conversation, including that Dr Boyce had stomach cancer and was coming back to practice as a doctor in Brisbane because they had financial problems. The prosecution did not suggest that Mrs Boyce had fabricated any of these details in the conversation. They were reasonably accurate. Dr Boyce had indeed returned to Brisbane from Cairns in November 2014 for treatment for aggressive prostate cancer (though not stomach cancer). Dr Boyce's son had spoken of Mrs Boyce's desire in 2015 for Dr Boyce to obtain some financial relief so that he could semi-retire. Dr Spelman gave similar evidence. Dr Boyce himself gave evidence that he had stayed in Cairns in 2015, working seven days a week, in order to pay for Mrs Boyce's "maxed out" credit cards.
5. The prosecution case was even further weakened by the evidence of Ms Tilse about Mrs Boyce's externally happy demeanour on an occasion when she was depressed, which accords with common sense, that a person's outward appearance can conceal depression. And it was further weakened by the flaw in the reasoning that people commit suicide only when they are in an observably depressed state.
6. It is true that Mrs Boyce had told her son that she would never act on her suicidal ideation and that she had managed her suicidal ideation for many years without acting on it, but Dr Spelman acknowledged the difficulty in predicting whether a person is going to commit suicide, particularly in relation to persons who suffer from both bipolar disorder and borderline personality disorder. On the other hand, when Mrs Boyce had spoken of suicide in the past, she usually referred to jumping off the balcony. She never spoke of suicide by stabbing.
7. It is necessary to observe that neither the prosecution at trial, nor the respondent on this appeal, contended that Mrs Boyce was unlikely to have committed suicide because she was in a manic or hypomanic phase of her bipolar disorder at the time of her appointment with Dr Spelman or at the time of her death. Dr Spelman did not give evidence to that effect. And the facts do not provide a basis to draw an inference that she was in such a state at the time of her appointment with Dr Spelman or at the time of her death.
8. A separate and more general observation is that, as illustrated in the decision of the Court of Appeal quashing the appellant's previous conviction[[40]](#footnote-41), there is need for great caution in reasoning that as Mrs Boyce was unlikely to have committed suicide, or more specifically to have committed suicide by the method of stabbing, it is more likely that she was murdered by the appellant. In this case, whoever inflicted the wound, something highly improbable did occur. All of the evidence must be considered, going to the relative likelihood of both hypotheses, in determining whether the prosecution failed to exclude as a reasonable hypothesis that Mrs Boyce committed suicide. In particular, the likelihood of Mrs Boyce deciding to commit suicide cannot be considered in isolation from the likelihood of the appellant deciding to commit murder.

(ii) The appellant's motive for murder

1. The strongest part of the prosecution case concerned the appellant's motive to murder Mrs Boyce, bolstered by the appellant's lie. The prosecution relied on the statements that the appellant made in his interviews with police, particularly about his suspicions of Mrs Boyce's infidelity with Mr McAlpine and their argument the evening before Mrs Boyce died, and the body of evidence that showed that Mrs Boyce was not as committed to the appellant as he believed her to be.
2. The prosecution emphasised the statements that the appellant had made during his police interviews about his suspicions about Mrs Boyce's relationship with Mr McAlpine. The appellant described how jealousy and distrust had built up during the day on 21 October 2015. He described a remark that Mrs Boyce had made earlier in the day about hooking back up with Mr McAlpine, and how he had confronted her in the evening about why she would bring that up. The appellant expressed his suspicions about Mrs Boyce's infidelity with Mr McAlpine—and reiterated the depth of his commitment to her—numerous times in the interviews.
3. The appellant believed that Mrs Boyce was divorcing Dr Boyce, they were getting married, and she was moving to New Zealand. He had been waiting for two years for her to leave her husband to be with him; indeed he had "hinged everything on her". But Mrs Boyce had been telling him one thing, and telling something different to her friends and family. Dr Boyce said that in early October the idea of divorce had passed and Mrs Boyce had told him that she was having nothing more to do with the appellant. She told her friends at lunch that the relationship was over, or that she was ending it. When, instead, Mrs Boyce invited the appellant to Brisbane, Mrs Boyce asked her son not to tell his father. She told her son a number of times that she was trying to get the appellant to leave. She succeeded in having the appellant purchase a plane ticket back to New Zealand. And during this period, she was in contact with Mr McAlpine, making plans to catch up once her "friends from New Zealand", of whom she had "had enough", were no longer staying with her.
4. The jury must have concluded, and properly so, that the appellant and Mrs Boyce argued in the evening of 21 October 2015, that the argument related to matters deeply personal to the appellant including fidelity, commitment and his relationship with Mrs Boyce, and that a consequence of that argument was that Mrs Boyce's iPhone, her "lifeline" as the appellant described it, was thrown over the balcony shortly after midnight. It was therefore an inescapable conclusion that the appellant had the motive to murder Mrs Boyce.

(iii) The appellant's lie

1. Apart from the discrepancies in the appellant's interviews which have been discussed above, the prosecution relied upon a significant lie that the appellant was alleged to have told during those interviews. The evidence of the lie by the appellant was deployed by the prosecution case not merely to impugn the appellant's credibility but also as circumstantial evidence of the appellant's guilt, that is, the appellant lied because he was guilty. In this sense, the appellant's motive provided some support for a conclusion that he had lied because he was guilty. If, contrary to the appellant's account, the appellant had accessed Mrs Boyce's iPhone in the eight-minute period around midnight, read her text messages and thrown the iPhone off the balcony shortly after midnight, then his motive provided support for the conclusion that he had lied about this because he knew that the truth would establish or tend to establish that he was guilty. The motive provided a basis to infer that at the time that the iPhone was thrown from the balcony the appellant was angry or jealous or both, and was in that state of mind at a time much closer to the estimated time of death of Mrs Boyce between 1.45 am and 3.45 am.
2. If the appellant had read those text messages, there would also be a stronger basis to infer that the suspicions that the appellant had described in his police interviews had been confirmed, given the content of the text message between Mrs Boyce and Mr McAlpine on 18 May 2015 that was viewed on the iPhone, and the other text messages between them since that date that may have been scrolled through, in the five-minute period that the text messages were accessed, to reach that message. Indeed, the most recent text messages between Mrs Boyce and Mr McAlpine showed that they were organising to catch up as soon as the appellant had returned to New Zealand.
3. The prosecution thus relied upon the lie not merely as impugning the credibility of the appellant but as a critical matter of circumstantial evidence that the appellant committed the offence: the appellant lied because he knew that if he told the truth, "the truth will convict him"[[41]](#footnote-42). The trial judge directed the jury that they needed to be satisfied beyond reasonable doubt that the appellant had lied on this matter and had done so "out of a realisation that the truth would implicate him in the offence of murder".
4. The trial judge's direction was consistent with the decision of this Court in *Edwards v The Queen*[[42]](#footnote-43). The trial judge, quite properly, generally avoided the phrase "consciousness of guilt" which, as is well known, has caused controversy since it has a meaning that itself contains a risk of suggesting guilt[[43]](#footnote-44). The trial judge properly directed the jury that in addition to being satisfied that the appellant had lied and that the lie was concerned with motive, it was necessary for the jury to conclude that the lie was told because the appellant knew that "the truth would implicate [him] in the offence with which he is charged"[[44]](#footnote-45). In other words, the jury needed to exclude beyond reasonable doubt any other reason for which the appellant might have lied including to bolster a true defence, to conceal disgraceful conduct, or out of panic or confusion[[45]](#footnote-46).
5. As McMurdo JA observed in the Court of Appeal, it is indisputable on the evidence that the appellant's statements to the police that the iPhone was thrown off the balcony by Mrs Boyce at times variously estimated between 9 pm and 9.45 pm were false[[46]](#footnote-47). But senior counsel for the appellant submitted in this Court that the two inferences that competed with the inference that the appellant lied with the knowledge that the truth would implicate him in the offence were: (i) that the appellant was confused about the time when the events occurred so that his false statements were not lies at all; and (ii) that the appellant lied in an attempt to conceal discreditable behaviour that might also be seen by others as reinforcing a motive for murder.
6. One significant strand of support for the appellant's case that he had been confused about the time was that for the appellant to have accessed the iPhone at that time, he would have needed to have known and entered Mrs Boyce's PIN code. The appellant's version of events is supported by the unlikelihood that Mrs Boyce would have told the appellant her PIN code and the absence of the appellant's fingerprint on the home button of the iPhone or at the location of any of the digits of the PIN code. But the prosecution speculated in closing submissions that the appellant might have seen Mrs Boyce enter her PIN code (which corresponded with the four middle numbers on the keypad in a row). And there was no evidence as to whether it would have been possible to recover fingerprints, either belonging to Mrs Boyce or the appellant, on the home button or the places corresponding to the PIN code numbers, given that the "face [of the iPhone] was smashed and part way off".
7. On the other hand, the appellant's account of the events culminating in the iPhone being thrown off the balcony depended upon the events occurring before Mrs Boyce went to bed. Importantly, the appellant said that the events involving the iPhone being thrown off the balcony occurred around, or shortly after, the time that the "Bachelorette" was on television. It was an admitted fact that the "Bachelorette" television show was aired on television that night from 7.30 pm until 8.40 pm.
8. The appellant said that he had recorded the "Bachelorette" and it was the recording that was being played at a later time. But that recording would have to have been subsequently deleted after the show had been watched because the recording was no longer on the set top box when it was examined. And even if the show had been recorded and then deleted, the appellant's account was that Mrs Boyce was speaking on the phone, including to Dr Boyce, while the show was playing. As the prosecution argued in closing, the latest that the "Bachelorette", if recorded, could have finished was 10.40 pm.
9. Further, Mrs Boyce's son had given evidence that Mrs Boyce said that she was drowsy from her medication at 9.30 pm when she spoke with him and he said that she sounded "tipsy". This evidence is consistent with the effects one would expect from the combination of alcohol and Mrs Boyce's prescribed medication, which she had been taking to assist her with sleeping.The appellant said that Mrs Boyce went to sleep at 9.30 pm and that he went to bed later at 11.00 pm. Mrs Boyce's computer had been used between 10.34 pm and 10.49 pm, with the last website accessed being an adult website. The location of the appellant's fingerprint on Mrs Boyce's iPhone further supports, albeit weakly in a context in which he had been living with her for two weeks, the conclusion that the appellant was the person who threw the iPhone over the balcony.
10. Ultimately, an inference that the appellant did not lie but was instead confused about the time that the events occurred, such that the events he described may have occurred around midnight, is not supported by the evidence. The only rational inference is that the appellant lied. In addition to lying about the timing of the throwing of the iPhone, the appellant must also have lied about the time that he went to bed—he had to have been awake around midnight to have known that the iPhone had been thrown from the balcony.
11. An alternative inference that the appellant lied, but not with the knowledge that the truth would implicate him in the offence, cannot be as easily excluded. If the access to Mrs Boyce's iPhone occurred as the prosecution submitted, with the appellant accessing Mrs Boyce's iPhone while she was asleep and throwing it off the balcony shortly after 12.04 am, then the appellant, if innocent, may have lied about those events to conceal his discreditable conduct and a display of anger and jealousy supporting a motive to murder. It is also possible that he lied about the time when the iPhone was thrown off the balcony but did not lie about an argument that preceded the throwing of the iPhone and may not even have lied about Mrs Boyce being the person who threw the iPhone off the balcony.
12. It is possible that he might have lied to conceal the *time* when the iPhone was thrown because that would place the timing of an argument with Mrs Boyce closer to the time of her death. It could easily be concluded that such a lie was told because it would implicate him in the offence if, at the time it was told, he could *only* have had knowledge that Mrs Boyce's time of death was after midnight because it was he who killed her. However, he may also have had knowledge that her time of death was after midnight if the argument with Mrs Boyce that he had described had preceded the throwing of the iPhone around midnight, or if he had entered her bedroom to obtain her iPhone and observed her sleeping.
13. In considering whether there are reasonable hypotheses inconsistent with the prosecution case that the appellant lied because the truth would implicate him in the offence it is significant that the approximate time of death was between 1.45 am and 3.45 am, about one hour and 45 minutes, and potentially nearly four hours, after Mrs Boyce's iPhone was last accessed and then locked. The evidence therefore does not support a hypothesis that the appellant read the text messages between Mrs Boyce and Mr McAlpine, threw the iPhone from the balcony, and, in a sudden jealous rage, murdered Mrs Boyce. The evidence is that her death occurred a not insignificant period of time after the iPhone was last used. It is also notable that two days earlier, on 19 October 2015, Mrs Boyce had sent a text message to Dr Boyce at 5.28 am saying that she was feeling depressed and had been "[u]p at 3am today".
14. The alternative inference that the appellant lied for reasons other than to conceal murder cannot be excluded simply by pointing to the lie itself. That would entail circularity of reasoning. That alternative inference cannot be excluded beyond reasonable doubt without considering the evidence of motive independent or irrespective of the lie, the unlikelihood of Mrs Boyce committing suicide by stabbing, and the remaining element of the prosecution case: the forensic evidence, including the evidence of Dr Ong.

(iv) Dr Ong's evidence and the nature of the injury

1. Apart from the evidence of Dr Ong, the forensic evidence in support of the prosecution case that the appellant had murdered Mrs Boyce was limited to her right-handedness and her arthritis. But Dr Ong considered that Mrs Boyce's arthritis would not have prevented the injuries from being self-inflicted. Further, as Dr Ong accepted, it was possible that when inflicting Track B, Mrs Boyce had held the knife with both hands but with her right hand higher on the handle than the left so that the right hand did not get blood on it.
2. The forensic evidence of most significance to the prosecution case was the evidence of Dr Ong, specifically his considerable expertise and his conclusion that although he could not "completely eliminate" the possibility of a self-inflicted injury it was "more likely" to have been inflicted by a different person. Given the importance of Dr Ong's evidence, it is unsurprising that immediately after the jury had retired at lunch to consider their verdict the jury returned with a request to be provided with the recording of the evidence of Dr Spelman and Dr Ong.
3. In light of the concession in this Court by counsel for the appellant concerning this ground of appeal, Dr Ong's opinion on this point must be treated for the purpose of this ground of appeal as having been properly admitted. The appellant's submissions on this ground also proceeded on the assumption that the jury were entitled to place weight upon the opinion of Dr Ong.
4. For the reasons explained above, once the case was reduced to one involving the choice of either murder or suicide, the two aspects of the prosecution case that had real force were the strong and compelling evidence of the appellant's motive and his lie about the timing of when Mrs Boyce's iPhone was thrown off the balcony, variously expressed as between 9 pm and 9.45 pm. The existence of a motive—when it is considered in the context of the evidence going to the likelihood of Mrs Boyce deciding to commit suicide by stabbing—tends to make it more likely that the appellant did the act, but it does not, by itself, prove that fact[[47]](#footnote-48).
5. Without support of the evidence of motive and the other aspects of the circumstantial case[[48]](#footnote-49), the lie cannot by itself be used, by bootstraps reasoning, as circumstantial evidence of the appellant's guilt on the basis that he lied because the truth would implicate him in the offence.
6. There are strong reasons not to place great weight on Dr Ong's ultimate opinion for the purposes of this ground of appeal. For instance, while Dr Ong gave evidence that there was "general acceptance" that multiple stab wounds are more suggestive of murder than suicide, Mrs Boyce had only a single stab wound and the unusual nature of that wound for either a murder or a suicide is equivocal in circumstances in which, as Dr Ong accepted, people sometimes commit suicide in "highly unusual ways" and "very extreme ways". Further, serious questions may be raised about the propriety of Dr Ong's reliance upon the movement of the knife within that wound, including the multiple tracks and the split-second choice (if it could even be called a choice) to rotate the knife.

Cumulative assessment of the four factors supporting the prosecution case

1. The hypothesis that has troubled us the most is the prospect that the appellant argued with Mrs Boyce in the evening and threw Mrs Boyce's iPhone from the balcony at around midnight before retiring to bed. Did that earlier argument heighten Mrs Boyce's sense of anxiety and emotion, causing her to wake between 1.45 am and 3.45 am and inflict the wound herself? That hypothesis is supported by the facts that: two nights earlier she had texted Dr Boyce that she had woken up at 3 am "feel[ing] all depressed again"; she had described herself as being very depressed and suicidal a day and a half earlier; she had suffered disappointment, and the weakening of a "protective factor" to which Dr Spelman referred, on the evening before her death when she had experienced the withdrawal of the prospective buyers; and she was in a period of volatility and instability in her relationships with her husband and her daughter, which also weakened the "protective factor" of the prospective birth of her grandchild.
2. On the other hand: the defence case was always that the argument between the appellant and Mrs Boyce immediately preceded the iPhone being thrown from the balcony; the only innocent explanations for the appellant's lie require that he observed her alive at around midnight (either because she was awake or he went into her bedroom and observed her sleeping); Mrs Boyce had said to her son at around 9.30 pm that she was drowsy, having had a couple of glasses of wine and her medication; the appellant himself had described her as "pretty groggy" when she went to bed, on his account shortly afterwards; and, after the series of phone calls between about 7.00 pm and 9.30 pm, Mrs Boyce's iPhone was not used from 9.30 pm until the handset was unlocked at 11.56 pm.
3. Ultimately, the strong and compelling evidence of the appellant's motive, combined with aspects of the forensic evidence including the opinion of Dr Ong, supports the conclusion beyond reasonable doubt that the appellant lied because he knew that the truth would implicate him in the offence. Together, those matters weigh substantially against any hypothesis in support of suicide. The argument between the appellant and Mrs Boyce did provide a real motive for the appellant to access Mrs Boyce's iPhone messages, read her text messages with Mr McAlpine, throw Mrs Boyce's iPhone from the balcony around midnight, and engage in the act, which Dr Ong opined to be more likely, of murdering Mrs Boyce at a time estimated to be between 1.45 am and 3.45 am.
4. The exclusion of a hypothesis that is consistent with reasonable doubt about the guilt of the appellant is also supported in part by some advantages that the jury had over this Court. For instance, this Court was not provided with many of the exhibits, including the audio-visual footage of the appellant's interviews with police and the list of URLs accessed on Mrs Boyce's computer on the evening of 21 October 2015 between 10.34 pm and 10.49 pm, as well as on earlier dates. Of course, the advantages of the jury in a circumstantial case such as this should not be overstated, particularly in circumstances in which most of the facts about which the prosecution witnesses gave evidence were not in dispute[[49]](#footnote-50). But, when these advantages combine with the appellant's motive and lie, and matters concerning the unlikelihood of suicide, all of which are reinforced by aspects of the forensic evidence of Dr Ong then, in the circumstances of this case, the critical question must be answered to the effect that the prosecution excluded as a reasonable hypothesis that Mrs Boyce committed suicide. That conclusion must be reached even though the evidence relevant to the circumstances of Mrs Boyce's death, and in particular her lack of movement following the infliction of the wound, cannot be easily explained. The verdict of the jury was not unreasonable and the first ground of appeal must be dismissed.

The second ground of appeal: an opinion not based on expert knowledge

The issue

1. Dr Ong holds a Bachelor of Medicine and a Bachelor of Surgery. He also holds a Master of Pathology, a Diploma of Medical Jurisprudence, and, following 11 years of medical practice, was made a fellow of the Royal College of Pathologists Australasia after passing the necessary examinations in 2000. At the time of giving evidence, Dr Ong had been employed by Queensland Health for 18 years and had performed between 4,000 and 5,000 autopsies.
2. There was, and could be, no dispute that Dr Ong is an expert. The issue on appeal was not whether Dr Ong was an expert. It was whether his expertise was sufficiently connected with the opinion he expressed. This requisite connection was described by Brennan J in *Murphy v The Queen*[[50]](#footnote-51) as the "link in the chain of admissibility", with the party asserting the existence and sufficiency of that connection bearing the onus of proof.
3. The second ground of appeal asserted an error of law by the Court of Appeal in upholding the admissibility of Dr Ong's evidence at trial that Mrs Boyce's wound "was more likely inflicted by a second person than by the deceased herself". The basis upon which Dr Ong's evidence was said to be inadmissible was that "it was not an opinion based on his expert knowledge". Importantly, this ground was based on the inadmissibility of the evidence given by Dr Ong at trial.

The irrelevance of pre-trial evidence given in absence of the jury

1. Prior to trial, the appellant filed an application pursuant to s 590AA of the *Criminal Code*(Qld) seeking a ruling that certain evidence given at the original trial be excluded at the retrial. In particular, the applicant challenged the proposed opinion evidence of Dr Ong, that (in the words of the trial judge) Dr Ong "favour[ed] a hypothesis that the deceased's death was caused by a second person rather than by the deceased"[[51]](#footnote-52). Dr Ong was called to give evidence on a voir dire for the purpose of the application. The trial judge dismissed the application, ruling that Dr Ong's evidence was admissible[[52]](#footnote-53).
2. On appeal to the Court of Appeal, and in this Court, reference was made to aspects of Dr Ong's evidence given at the voir dire. Counsel for the respondent correctly accepted, in response to a question from the Court during the oral hearing, that this Court was only concerned with the evidence as it was presented to the jury. Unfortunately, however, the decision of the Court of Appeal conflated the evidence of Dr Ong at trial with his evidence at the voir dire[[53]](#footnote-54). This conflation, which may have reflected the manner in which the appeal was argued, was an error of principle. The appeal to the Court of Appeal of the Supreme Court of Queensland, and the appeal to this Court, were not interlocutory appeals from the decision of the trial judge on the application pursuant to s 590AA of the *Criminal Code*. These were appeals on the ground that the admission of the relevant aspect of Dr Ong's evidence *at trial* was a "wrong decision [on a] question of law", although expressed as constituting a miscarriage of justice, under s 668E(1) of the *Criminal Code*.
3. When assessing whether evidence was erroneously admitted at trial, the general rule (perhaps unsurprisingly) is that it is only the evidence at trial that is relevant. With two "exceptions", evidence at a voir dire is irrelevant. These "exceptions" are not truly exceptions because they both involve circumstances in which the voir dire evidence is admitted before the jury in the form given at the voir dire. The first exception arises if the voir dire is conducted in the presence of the jury (and the evidence at the voir dire is relevant and not subject to an exclusionary rule)[[54]](#footnote-55). The second exception is if the evidence in the voir dire is tendered by the parties and admitted before the jury (subject to the usual rules of evidence)[[55]](#footnote-56). An example of the second exception relates to a voir dire about the voluntariness of a confession. If an accused, despite being given a warning by the trial judge that they may be cross-examined and their answers in cross‑examination may be used against them in the trial, proceeds to give evidence on the voir dire, the accused at least runs the risk that any admissions they make may be used against them[[56]](#footnote-57).
4. The general rule explains the statement in *Cross on Evidence* in respect of expert opinions that[[57]](#footnote-58):

"After a voir dire to determine whether an expert can give admissible opinion evidence, *it will be desirable, if not essential, to place before the jury much if not all of the evidence that was led on the voir dire to establish the admissibility of the expert evidence*, so that the jury may consider the expertise of the witness, and understand the basis of the opinion, and to determine whether to accept it". (emphasis added)

1. One of the cases cited in *Cross on Evidence*, *J*[[58]](#footnote-59), provides a powerful illustration of these points. In that case, Brooking J (with whom Southwell and McDonald JJ agreed) made, almost verbatim, the point emphasised above in *Cross*[[59]](#footnote-60). As Brooking J observed, one of the "difficulties" in the case was that the trial was conducted on the (incorrect) assumption that what the expert had said at the voir dire had been or was the evidence at trial, when, in fact, it was not[[60]](#footnote-61). The effect of this was that the jury were "treated as if they already had some knowledge on the subject [of the expert's evidence]" because it was assumed that they "had already been apprised by evidence[] of certain things"[[61]](#footnote-62).
2. Neither of the "exceptions" applied in this case to permit the Court of Appeal (or this Court) to have recourse to the evidence given on the voir dire. Indeed, in circumstances where this Court is concerned with an appeal from a decision of the Court of Appeal, concerning s 668E(1) of the *Criminal Code*, in which the voir dire evidence was not admitted as evidence at trial or before the Court of Appeal, it is hard to see how the evidence at the voir dire, even if somehow admissible, could have been admitted despite the requirements of s 73 of the *Constitution*[[62]](#footnote-63).
3. The effect of this reasoning is that it is open to a trial judge to conclude later that they had been mistaken in holding evidence given at a voir dire to be admissible so that after hearing the evidence at trial the judge may direct the jury to disregard it (or if that will not sufficiently remove the prejudice caused by that evidence, the jury may be discharged)[[63]](#footnote-64). Similarly, it would be prudent for counsel to renew an objection to evidence given before a jury by a witness on the basis that the evidence "as given" is inadmissible even if a ruling has been given on a voir dire that the evidence is admissible[[64]](#footnote-65).
4. Senior counsel for the appellant quite properly acknowledged in this Court that although an objection to admissibility had been made at the voir dire, the objection was not renewed after Dr Ong's evidence was given at trial. There was, also quite properly, no issue in this Court arising from the lack of any formal objection taken to Dr Ong's evidence after it had been given.
5. The Court of Appeal treated the pre-trial evidence that was given by Dr Ong at the voir dire as providing some foundation for the admissibility of Dr Ong's evidence at trial. This was an error for the reasons above. Indeed, this appeal affords a particular example of the dangers of conflating the evidence of an expert at a voir dire with the trial evidence of the expert.
6. As Mullins JA observed in the Court of Appeal, during the voir dire one of the factors that Dr Ong said that he took into account in expressing his opinion was "the fact that there had been an impact of the ribs"[[65]](#footnote-66). That was one of the three non-neutral factors upon which Dr Ong relied in his voir dire evidence. But that factor was not repeated in Dr Ong's evidence at trial as a relevant factor. Had he changed his mind? During the voir dire, Dr Ong conceded in cross-examination that he had not been aware when he first expressed his opinion that Mrs Boyce suffered from osteoporosis. He said that this led him to change his mind about the force that could have been applied by the knife. There is every likelihood that it also led him to omit that factor from his evidence at trial. It would not merely be a basic error of law but it would be a gross injustice to the appellant if this Court were to borrow aspects from the different evidence given by Dr Ong at the voir dire and combine it with the evidence that Dr Ong gave at trial in order to manufacture admissibility of some amalgam of evidence that was before, and not before, the jury.

Dr Ong's evidence in chief and the grounds for his opinion

1. Dr Ong described the wound to Mrs Boyce's abdomen as involving a single stab wound within which there were two major internal tracks, Track A and Track B, which also had tracks within them. Dr Ong said that the wound would have taken up to five seconds to inflict.
2. The first major track, Track A, was where the knife entered the front of the body in a slightly upward direction towards the right and to the back of the body, with the sharp edge of the blade pointing upwards in a vertical position, to about 10 o'clock on a clock face if 12 o'clock was the head and 6 o'clock was the feet. The second major track, Track B, was where the knife was found. The knife was directed slightly towards the right and towards the back in a slight downwards direction, with the blade of the knife pointing downwards to about 6 o'clock on the clock face.
3. Track A passed through the abdominal cavity and penetrated through the liver. There were two exit wounds to the liver, meaning that there was a slight withdrawal of the knife by about one to two centimetres back into the substance of the liver and a thrust back out of the liver, creating two internal tracks. One of the internal tracks travelled upwards into the left lobe of the liver (an incision of seven centimetres in length), while the other internal track penetrated the right lobe of the liver (an incision of 13 cm in length and six centimetres in depth). Dr Ong was unable to determine which internal track occurred first.
4. After the incision through the liver, one of the internal tracks perforated into the chest cavity by cutting through the diaphragm. The force used for this internal track within Track A was estimated to be mild.
5. The other internal track within Track A passed through the liver, into the chest cavity, missing the lungs, hitting the chest wall at the back and causing an incision in the chest wall and a partial fracture of the upper surface of the tenth rib, before exiting the body through her back. This second track involved the blade of the knife cutting through the bile duct, the inferior vena cava attached to the liver (a blood vessel which, when cut, would cause profuse bleeding), and the renal vein. The force used for this other internal track within Track A was estimated to have been mild to moderate. In cross-examination, Dr Ong accepted that it would be fair to say the force might well have fallen more towards the mild end than the moderate end.
6. After Track A, the majority of the blade was withdrawn from the body, with three or four centimetres of the blade remaining inside the body as the blade changed direction and was rotated before Track B was formed. Track B was the injury where the knife was found. Track B was comprised of three internal tracks. The blade of the knife initially penetrated the upper border of the stomach, known as the lesser curvature, then continued through the hemidiaphragm, and entered the back of the chest. Within the chest cavity the three tracks within Track B were formed. The first entered the chest cavity and hit the eleventh rib causing a superficial fracture. The force used for this track was estimated to be mild to moderate. The knife would then have been withdrawn about one centimetre. The second and third tracks within Track B were "closely associated" with each other. Both these tracks went "slightly interior" to hit the immediate end of the twelfth rib, before exiting the body. Again, the force used for this track was estimated to be mild to moderate. In cross-examination, Dr Ong again accepted that the degree of force required to inflict the tracks could be described as towards the mild end. He also accepted that it was possible that Track B only comprised two tracks at the time of death, with the third internal track being caused by the movement of the body after death.
7. There was one entry wound but three exit wounds, one of which corresponded with Track A, and two of which corresponded with Track B.
8. Dr Ong's conclusions on this point were expressed as follows:

"Q: Now, Doctor, the last thing I wanted to ask you about is your interpretation with respect to the injuries as to whether they may have been self-inflicted. Are there factors that you take into account in determining whether this was a self-inflicted injury or not?

A: Yes, it's often a—a difficult issue with respect to stab wounds to the abdomen. But—but there are certain factors we take into account. One is there—is there any issues such as the self-harm and I mentioned has the patient injuries—injuries elsewhere that may indicate self-harm, like incision to the wrist and so forth. Second is looking at the—the fact that the stab wound has occurred for the [indistinct] This are—this has de—described in forensic texts and journals. And I believe these are not very strong factors to decide one way or another. The—I think in—in my determination, the—the strongest factor or—or the one that I take most into account is the multiplicity of the stab wounds. I detected [indistinct] the two main directions and this include rotation of the blade. To—take into account that the—in the first instance—that is, track wound A—wider structures has been damaged or—or—sorry, involved. That is the main one I take into account is the inferior vena cava which will cause bleeding. A profuse amount of bleeding, and also even the liver substance itself. The liver itself, which is a very vascular organ, and also I take into account that—I mentioned the rotation of the blade and—and that it appears that some of the wounds, judging by the blood on her hand, that it's only—if—if it's self-inflicted, it—it may be only the—the left hand was involved, especially at the later stages. The—the initial stages, it's possible both hands can be involved because there's no bleeding yet. But after the bleeding has occurred, it was only the left hand that was—has bloodstains.

Q: All right?

A: And taking into account all this, I would think that it is more likely that this wound caused by a—a second—a different person or a second—a different party. But having said that, I think that I cannot completely eliminate the fact that it—it cannot be a self-inflicted injury."

1. The transcription of this crucial part of Dr Ong's evidence was not perfect. And it provided very little detail as to how his expertise had been applied to the factors to which he had had regard in order to reach his opinion. His cross-examination, explained below, focused upon exposing the manner in which that expertise had been applied.

Dr Ong's cross-examination concerning the use of his expertise

1. In cross-examination, Dr Ong was asked to elaborate on three of the factors that he relied upon for his opinion that it was more likely that the wound was caused by a different person from Mrs Boyce. The only factor about which he was not asked was his evidence about the placement of Mrs Boyce's hands on the handle of the knife. It is unfortunately necessary to set out significant passages of Dr Ong's evidence in chief and cross-examination to provide the entire context for his evidence in cross-examination and to avoid any misunderstanding that could arise if selective passages were taken out of context.

Dr Ong's first factor: historical and immediately preceding self-harm injuries

1. In Dr Ong's evidence in chief he had been asked the following about self-harm injuries:

"Q: You spoke of also looking for signs that may be linked to suicide?

A: Yes. On the body, sometimes they may have additional injuries around the site of the stab. This is known as hesitation injuries. It usually occurs when—any injury—making a decision to—to—to stab may—may—may—may do some stabbings at around the vicinity of the stab wound—of—of the eventual stab wound just to—well, some people will see—to test the pain, to see how painful before—before being brave enough to make the plunge. There may be other signs of self-harm injuries elsewhere. For example, common injuries we see will be incisions on the wrist or sometimes even on the neck.

...

Q: You spoke earlier about self-harm. Did you notice any scarring or anything of that nature which may have been similar or indicative of previous acts of self-harm?

A: No. There was no scars consistent with self-harm on the body.

Q: All right. Though there were a number of scars which were present?

A: Yes.

Q: But they weren't of a nature that you made any observation with respect to acts of self-harm?

A: No."

1. It is plain beyond peradventure that Dr Ong's evidence quoted above concerned two types of previous self-harm injuries. First, there were those injuries that were inflicted immediately prior to a suicide, which he called "hesitation injuries". Secondly, there were those that had been inflicted at some earlier time, which might have left scarring. Dr Ong was asked in cross-examination to return to this evidence:

"Q: I'm going to ask you some questions now about the matters which you explained [in examination in chief] were factors that you took into account when assessing the deceased's body to determine your conclusion about the likeliness or otherwise of her injury having been inflicted by herself or by somebody else?

A: Yes.

...

Q: Okay. As I understood it, the first factor that you said that you took into account was any features suggesting self-harm?

A: Yes.

Q: And I think you mentioned the word 'cutting'?

A: Or incision, yes.

Q: Incision?

A: Mmm.

Q: Were you referring then, in terms of features of self-harm, to cuttings that had occurred at the time of the death or are you talking about things like previous—evidence of previous attempts of self-harm, like cutting of the wrists?

A: It'll be both here."

1. As the cross-examination continued, Dr Ong's answers reinforced his focus on both the existence of evidence of "fresh" self-harm, such as hesitation injuries, and evidence of historical self-harm, such as the scarring he had described. He treated both together:

"Q: Both? Okay. So let's deal with the ones at the time. You said you were looking for both. What's the significance of any cuttings that you might have seen that were fresh?

A: It will tell that there has been attempt to self-harm, and because there—these wounds in addition to the fatal wounds—eventual fatal wounds, that I would consider this—other wounds to be a failure in an attempt to take one's life.

Q: All right. So you're talking really about any injuries that you might have observed that were suggestive of a previous attempt to take her life?

A: Yes.

Q: Okay. And if you had found any evidence of previous—a previous attempt by her to take her own life, that would have been a factor presumably which weighed more towards this being more likely to have been self-inflicted?

A: Yes.

Q: Because, as I understand the reasoning, if there is a history of self-harm, or attempts of self-harm, that might be an indicator of future behaviour, ie, a further attempt at self-harm?

A: Yes."

1. Dr Ong then accepted in cross-examination that he did not know, but would "definitely [have] take[n] ... into consideration" if he had known, that Mrs Boyce had bipolar disorder, that she had spoken in the past of committing suicide, and that her son had been called to intervene when she had stepped on a chair on the edge of her balcony. All these matters would have been taken into account by him because he was looking "at the whole picture".
2. As explained above, in examination in chief, Dr Ong had referred to the fresh and historical evidence of self-harm as being "not very strong factors to decide one way or another".

Dr Ong's second factor: the knife pierced the sheet

1. Although the transcription of his evidence in chief did not reveal the second factor that Dr Ong took into account, he said, in cross-examination, that he took into account as a factor that the knife had pierced the sheet before moving into the skin and the body. But he said that this was a factor that "does occur more often in suicides, but it's not a very strong feature". He concluded that this factor was neutral.

Dr Ong's third factor: the number of internal tracks and the rotation

1. The third factor about which Dr Ong was cross-examined was that although there was only one stab wound, (i) there were four, or possibly five, "internal tracks" within Track A and Track B and (ii) the knife had been rotated. The four or five internal tracks constituting Track A and Track B of the single stab wound were different from a case involving multiple stab wounds. Dr Ong explained that he had "performed autopsies on a self-inflicted victim [with] more than 20, 30 stab wounds". He said, however, of the existence of multiple stab wounds:

"I wouldn't say it's a neutral feature. When there's multiple stab wounds this always points towards a—a possible second party involvement, but it's definitely not a definite feature to—for me to make up my mind."

1. Of course, Mrs Boyce's case involved only a single stab wound. Dr Ong said that one stab wound, by itself, was "equivocal" between self-harm or harm from another. He was then asked whether one stab wound with internal tracks was also equivocal. He answered:

"I think you have to go into the minutiae of the—the stabbing. Because of this case, I've looked through what is available in the literature. I think that—I've actually found, so far, three cases that has a self-inflicted injury that has multiple tracks inside a single stab wound. One of them is actually one of our case ... in the past. That particular case, I think that is a stab wound th[r]ough the chest. I think there was three tracks. The second one in the—that was in the literature—there's no detail. He—they just say that one—a case with three stabs, three tracks, so I know nothing about that—no detail. The—the third one has some details. There was actually five tracks. Again, it's into the chest. Three of the tracks did not enter the chest cavity. One did, but did not cause any major injuries, and I think the last one has caused some major injuries, either to—I can't remember offhand, but it's either to the heart or one of the major vessels of the—supplying the heart. So in—in—in all this—by listing those two cases, the—the—the—the—the main thing I—I notice is that there's only one track in all those cases that caused a major injury that can cause death. That is, in other words, the other tracks are not severe enough to—to kill, and of course, all those tracks were—there's no involvement in rotation of it."

1. Dr Ong then clarified that of those three cases, one was just a general description of a suicide which involved three tracks with no further detail. Dr Ong was asked about the significance of the rotation of the blade and his answer was as follows:

"It's not just the, I think, pain. It's just the—the features of it. I mean, if you have two stabs in one direction and these stabs are—they will eventually kill. I agree with you that in a—initial instance, it may not be immediately fatal. And then we have a—a de—a slight delay because there's a rotation of the blade ... And further plunging in a different direction. And—and that is a bit—that is odd. That is not common and I have not found any case [or] report of stabbing inj—injuries by this means."

1. Shortly afterwards he was asked to clarify this answer:

"Q: And I'm just trying to understand why that's significant. As I understand it, you've said it's significant in part because there might have—well, there would've been some delay to turn the handle. What's the—any other significance of it?

A: I just find that it's—that if a person needs to—in an attempt to—to self-inflict injuries, that it—that—that the injurer would take the trouble to rotate a blade, rather than just plunge it in different directions.

Q: Okay. And is that the sum total of it, of the significance of it?

A: Yes. Looking at it, yes."

1. In summary, Dr Ong had never seen a single entry wound with multiple internal tracks and rotation of the blade in any death, whether suicide or murder. He thought that the significance of the multiple internal tracks and rotation of the blade was that: (i) it was odd; (ii) it would have been painful; and (iii) it was unlikely that a person committing suicide would choose to ("take the trouble to") rotate the blade rather than "just plunge it in different directions" during the short period of up to five seconds in which the injury was inflicted.

The admissibility of expert evidence

1. In contrast with other jurisdictions[[66]](#footnote-67), it has been observed that "most Australian judges have not exhibited much interest in the reliability of expert opinion evidence", a lack of interest that has been said to be "intriguing, at the very least"[[67]](#footnote-68). Instead, the exclusion of unreliable expert evidence will usually depend upon a conclusion that the prejudicial effect of the evidence exceeds its probative value[[68]](#footnote-69), particularly where the evidence is of "little or no weight"[[69]](#footnote-70). Senior counsel for the appellant did not seek to make any submission on this appeal that Dr Ong's evidence should be excluded on the basis that its prejudicial effect exceeded its probative value. But, as will be seen, although concerns about reliability are often submerged when assessing expert evidence, they are not entirely absent. Hence, although senior counsel for the appellant assumed that the first ground of appeal should proceed on the assumption that the evidence of Dr Ong was admissible, she correctly said that concerns about the admissibility of Dr Ong's evidence would affect the weight to be given to Dr Ong's evidence in relation to the first ground.
2. The strict requirements for the admission of expert opinion evidence, referred to and relied upon on many occasions[[70]](#footnote-71), were expressed by Heydon JA in *Makita (Australia) Pty Ltd v Sprowles*[[71]](#footnote-72) in relation to s 79 of the *Evidence Act 1995*(NSW) but primarily relying upon common law authority:

"[I]f evidence tendered as expert opinion evidence is to be admissible, it must be agreed or demonstrated that there is a field of 'specialised knowledge'; there must be an identified aspect of that field in which the witness demonstrates that by reason of specified training, study or experience, the witness has become an expert; the opinion proffered must be 'wholly or substantially based on the witness's expert knowledge'; so far as the opinion is based on facts 'observed' by the expert, they must be identified and admissibly proved by the expert, and so far as the opinion is based on 'assumed' or 'accepted' facts, they must be identified and proved in some other way; it must be established that the facts on which the opinion is based form a proper foundation for it; and the opinion of an expert requires demonstration or examination of the scientific or other intellectual basis of the conclusions reached: that is, the expert's evidence must explain how the field of 'specialised knowledge' in which the witness is expert by reason of 'training, study or experience', and on which the opinion is 'wholly or substantially based', applies to the facts assumed or observed so as to produce the opinion propounded."

1. The detail and method of application of these numerous strictures for expert evidence in *Uniform Evidence Act* jurisdictions have been said to be "inadequate, incoherent, and difficult to apply in practice"[[72]](#footnote-73). But at a higher level of generality, the rules set out in *Makita (Australia) Pty Ltd* reflect three fundamental requirements that must be met, in addition to the ordinary rules of evidence, before the opinion evidence of an expert witness can be admissible[[73]](#footnote-74). The first is that the expert witness must identify an accepted field of expertise that they have which can be applied to the facts. The second is that the expert witness must identify a factual basis or foundation for the opinion in the admissible evidence or matters that are, or can be taken to be, before the court. The third is that the expert witness must expose how their expertise is the substantial basis connecting the factual foundation to the opinion given.
2. As to the first requirement, an accepted field of expertise requires specialised knowledge. It concerns knowledge which is not possessed by ordinary people[[74]](#footnote-75), and which is "sufficiently organised or recognised to be accepted as a reliable body of knowledge or experience"[[75]](#footnote-76).
3. As to the second requirement, the need for an expert to identify the factual basis or foundation for the opinion in the admissible evidence or matters that are, or can be taken to be, before the court is essential in order for the strength of the opinion to be assessed and for the opinion to be tested in cross-examination. Without exposure of the factual basis or foundation for the opinion, the opinion becomes a "black box" which is "insusceptible to a 'full and fair opportunity to test ... in cross-examination'"[[76]](#footnote-77).
4. As to the third requirement, there are two reasons for it. First, without demonstration that the expertise has sufficiently connected the exposed factual foundation to the opinion given by reference to expertise, then there is no basis to conclude that the opinion is "expert": if "on the proven facts a judge or jury can form their own conclusions without help, then the opinion of an expert is unnecessary"[[77]](#footnote-78). Furthermore, evidence of a sufficient connection based on expertise, between the exposed factual foundation and the opinion, is necessary to expose whether the expert has ventured beyond the area of their expertise. As Brennan J expressed the point, it is necessary to show the "link in the chain of admissibility"[[78]](#footnote-79).
5. The second reason for this requirement of sufficient connection, as Sir Owen Dixon said, is that "courts cannot be expected to act upon opinions the basis of which is unexplained"[[79]](#footnote-80). Fundamentally, the task of choosing whether to accept the evidence of an expert, or of choosing between competing experts, is one that will depend upon "impressiveness and cogency of reasoning"[[80]](#footnote-81). That task of assessing reliability cannot be undertaken without sufficient explanation of the connection in expertise between the factual foundation identified and the opinion of the expert.
6. "Sufficiency" is, however, an elastic concept. The extent of required explanation of how the opinion expressed is based upon expertise can vary and will involve issues of judgment. In some cases where expert evidence is given on a matter which is not in real dispute, the expert may not be required to expose in great detail the basis upon which the opinion is based on their expertise. But the more critical the opinion is to the matters in issue, and the more contested the opinion, the more necessary it will be that the opinion expose the expertise upon which it is based[[81]](#footnote-82).
7. As will be seen below, Dr Ong's opinion that it was more likely that the stab wound was caused by a second person was critical to the issues before the jury. But his evidence failed to provide any connection in expertise, still less any sufficient connection for such a critical opinion, between the facts upon which he relied and the opinion he gave.

The admissibility of Dr Ong's evidence

1. In *Velevski v The Queen*[[82]](#footnote-83), an issue was whether evidence concerning whether wounds were self-inflicted or inflicted by another was a field of knowledge which, within s 79 of the *Evidence Act 1995*(NSW), was "wholly or substantially based on [specialised] knowledge"[[83]](#footnote-84). Gummow and Callinan JJ said that an opinion concerning whether wounds may have been suicidally self-inflicted was capable of being the subject of expert evidence but they emphasised the "occasional imprecision of such evidence and the need to scrutinise it with great care"[[84]](#footnote-85).
2. The need to scrutinise the expert evidence in this field with great care directs attention particularly to the third requirement: clearly demonstrating how the witness' expertise is the substantial basis connecting the factual foundation to the opinion given. In a case where the expert opinion of Dr Ong concerned a critical issue, and was likely to have significantly influenced the jury's verdict, it cannot be sufficient that the way in which his expertise supplies a connection between the facts and his opinion was vague, tenuous or a matter of speculation.
3. As to his expertise, there is no doubt that Dr Ong was eminently qualified to give his expert evidence describing the movement of the knife through Mrs Boyce's body. Although the line is not always clear, this type of expert evidence has been described as "expert factual evidence" as opposed to expert opinion evidence[[85]](#footnote-86). Dr Ong was eminently qualified to give such expert factual evidence explaining the internal tracks in Track A, the small withdrawal between the making of those tracks, the larger withdrawal between Track A and Track B, the rotation of the knife, the internal tracks in Track B, the internal structures affected by each track, and the exit wounds corresponding with the two major tracks.
4. It can also be accepted that Dr Ong identified the factual basis upon which his conclusion was reached. In the passage set out above at [207], and in his responses in cross-examination, Dr Ong referred to all of the factors which he took into account. Each of those factors, other than the matter of Mrs Boyce's hand placement, was the subject of cross-examination in an attempt to elucidate how Dr Ong's expertise was applied to those factors in order to reach his disputed conclusion on the critical issue: that although he could not "completely eliminate" the possibility of a self-inflicted injury, it was more likely that the wound was caused by a second person.
5. The problem for Dr Ong's opinion on this issue, and the reason that it was both inadmissible and of no weight, is that he failed to expose how his expertise was the substantial basis for connecting the facts to which he referred to this opinion.
6. As to the hand with which Mrs Boyce might have held the knife, and the possibility that her hand placement might have changed during the infliction of the injury, Dr Ong referred to the lack of bleeding in the early stages of the infliction of the wound, which couldexplain why there was no blood on her right hand if it was only used in the early stages of the infliction of the injury. However, he did not explain how this intermediate conclusion, that Mrs Boyce's hand placement might have changed during the stabbing if it was self-inflicted, was relevant to his opinion that it was more likely that it was a second person who caused the stab wounds. If anything, this opinion seems to support the opposite conclusion, by showing that Mrs Boyce might have used both hands at the early stages of the infliction of the injury. There was certainly no link provided by expertise between these facts relied upon by Dr Ong and his opinion that the wound was more likely caused by a second person.
7. Of the three factors that were the subject of cross-examination, the first factor that Dr Ong referred to, the absence of fresh hesitation injuries or scarring from past attempts at suicide, was a factor that he said was "not very strong". It appears that it played little part in the expression of his opinion. But to the extent that it affected his opinion (and Dr Ong said that if he had possessed evidence about Mrs Boyce speaking of committing suicide or stepping onto a chair on the edge of the balcony he would "definitely [have] take[n] this into consideration"), then it was beyond his expertise. Counsel for the respondent properly did not attempt to submit that Dr Ong's expertise extended to psychology.
8. The second factor that was the subject of cross-examination, that the knife had pierced the sheet before moving into the skin and the body, was a matter that he described as neutral, although he said that it was a factor that occurred more often in suicides. This factor did not support Dr Ong's conclusion.
9. The entirety of the justification for Dr Ong's contested opinion therefore rested upon the third factor that was the subject of cross-examination, which concerned the multiple tracks within the single stab wound and the rotation of the knife. But the only instances of multiple tracks within a single stab wound that Dr Ong said that he had read of were in suicides. He had never seen any. And Dr Ong had never seen or read about an instance where a knife had been rotated in the wound.
10. The only facts upon which Dr Ong's expertise was deployed that supported his opinion, on a matter critical to the prosecution case, reduced to the method of inflicting the wound being painful, and involving a rotation of the knife that was potentially unnecessary to ensure death, during an incident that lasted no more than five seconds. That was it. In circumstances where he had neither seen nor read of an example of a single wound with multiple tracks and a rotation of the knife, whether suicide or murder, the entire extent to which his expertise was exposed in connecting those facts to his opinion was his own speculation that the facts were "odd", the injury would be painful, and an injurer (if committing suicide) would not choose to ("take the trouble to") rotate a blade rather than just plunge it in different directions.
11. None of these matters was shown to have any connection with expertise. Dr Ong was "not qualified as an expert to express his conjectures, which paraded as scientific opinions"[[86]](#footnote-87). And to the extent that they might have a connection with any expertise it would be in the field of psychology, including the psychology of the appellant or the psychology of Mrs Boyce: would either or both type of person have had the psychology of inflicting multiple tracks and rotating the knife in a stab wound to inflict increased pain or to increase the likelihood of death? Would that conclusion be affected by Mrs Boyce's psychology, as informed by her borderline personality disorder and bipolar disorder? Was it relevant that only mild or mild to moderate force was used? Was it relevant that the injury took only up to five seconds to inflict?
12. If any of these were matters by which expertise could have been applied to reach a conclusion, Dr Ong did not say. But even if he had done so he could not have done so admissibly. Just as a paediatrician does not have the expertise to give an opinion on matters of psychiatry or psychology[[87]](#footnote-88), so too a forensic pathologist is not qualified to give an opinion on those matters.
13. Even without the careful scrutiny that Gummow and Callinan JJ had required for evidence of this nature[[88]](#footnote-89), the evidence of Dr Ong did not establish how his expertise provided a substantial basis for any connection between the facts and the opinion that he expressed. Still less did it establish the clarity of connection that should exist when expert evidence is given on a significantly disputed matter that is critical to the outcome of the trial.

Conclusion

1. The appeal should be allowed. The orders of the Court of Appeal of 8 March 2022 should be set aside and, in lieu thereof, it should be ordered that the appellant's appeal to that Court be allowed, the conviction be set aside, and an order made for a retrial.
2. JAGOT J. The appellant, Thomas Lang, was charged with and convicted of the murder on 22 October 2015 of Maureen Boyce ("Mrs Boyce" or "the deceased"). He was sentenced to life imprisonment with a non‑parole period of 20 years.
3. The appellant appealed against his conviction on two grounds. Ground one was that the verdict was unreasonable and could not be supported having regard to the whole of the evidence. Ground two was that there was a miscarriage of justice at the trial of the appellant by the wrongful admission of evidence of the opinion of a forensic pathologist, Dr Beng Beng Ong ("Dr Ong"), that it was more likely that the deceased's wounds had been caused by a person other than the deceased than that the wounds were self‑inflicted ("the impugned evidence"). The Court of Appeal of the Supreme Court of Queensland unanimously rejected both grounds and dismissed the appeal against conviction[[89]](#footnote-90).
4. The appellant was granted special leave to appeal. The two grounds of the appeal in this Court are the same in substance as those considered and rejected by the Court of Appeal, albeit that ground one, the unreasonable verdict ground, is now framed as that the Court of Appeal erred in finding that the guilty verdict was not unreasonable as, on the whole of the evidence, there is a reasonable possibility that the deceased committed suicide.
5. As a matter of principle, the unreasonable verdict ground must be determined on the whole of the evidence including the impugned evidence of Dr Ong. If the verdict is unreasonable on the whole of the evidence, the appellant must be acquitted. If the verdict is not unreasonable on the whole of the evidence but the impugned evidence of Dr Ong was inadmissible, the verdict must be set aside, and the matter should be remitted for retrial. Speculation about what the jury might or might not have done with the impugned evidence of Dr Ong serves no purpose and may distract from the proper approach to both issues.
6. As will be explained, the Court of Appeal did not err in concluding that both grounds of appeal must be rejected. Once the whole of the evidence is considered, it is apparent that the jury was not required to hold a reasonable doubt as to the appellant's guilt. The evidence excluded beyond reasonable doubt the possibility that Mrs Boyce stabbed herself in the abdomen while she lay in her bed and thereby caused her own death. This conclusion applies whether the impugned evidence of Dr Ong is considered or not. The impugned evidence, however, was admissible. Accordingly, the appeal to this Court must be dismissed.

Ground one – the unreasonable verdict ground

The test to be applied

1. By s 668E(1) of the *Criminal Code* (Qld), the court on an appeal against conviction "shall allow the appeal if it is of opinion that the verdict of the jury should be set aside on the ground that it is unreasonable, or can not be supported having regard to the evidence".
2. The relevant test is that identified in *M v The Queen*[[90]](#footnote-91). The question "which the court must ask itself is whether it thinks that upon the whole of the evidence it was open to the jury to be satisfied beyond reasonable doubt that the accused was guilty"[[91]](#footnote-92). This question "is one of fact which the court must decide by making its own independent assessment of the evidence"[[92]](#footnote-93). While "[i]n most cases a doubt experienced by an appellate court will be a doubt which a jury ought also to have experienced", if "a jury's advantage in seeing and hearing the evidence is capable of resolving a doubt experienced by a court of criminal appeal" then the court may conclude that no miscarriage of justice has occurred[[93]](#footnote-94). Accordingly[[94]](#footnote-95):

"where the evidence lacks credibility for reasons which are not explained by the manner in which it was given, a reasonable doubt experienced by the court is a doubt which a reasonable jury ought to have experienced. If the evidence, upon the record itself, contains discrepancies, displays inadequacies, is tainted or otherwise lacks probative force in such a way as to lead the court of criminal appeal to conclude that, even making full allowance for the advantages enjoyed by the jury, there is a significant possibility that an innocent person has been convicted, then the court is bound to act and to set aside a verdict based upon that evidence."

1. In a case where the evidence is circumstantial, this means that the appeal court must "weigh all the circumstances in deciding whether it was open to the jury to draw the ultimate inference that guilt has been proved to the criminal standard"[[95]](#footnote-96). A circumstantial case must not be considered "piecemeal"[[96]](#footnote-97). If, on the whole of the evidence, "the prosecution has failed to exclude an inference consistent with innocence that was reasonably open", then the jury is not able to draw that ultimate inference[[97]](#footnote-98). Accordingly, in a circumstantial case, it is impermissible to consider any piece of evidence in isolation from the whole. This fundamental principle is of the utmost importance in the present case.

Circumstances of Mrs Boyce's death

1. In the courts below and in this Court, the appellant acknowledged that, in the circumstances of this case, there were only two possibilities – Mrs Boyce died by suicide or Mrs Boyce was murdered by the appellant. Accordingly, by proof beyond reasonable doubt, the prosecution had to exclude the possibility that Mrs Boyce died by suicide. This, it was submitted for the appellant, the prosecution had failed to do.
2. The uncontroversial evidence of Dr Ong included that Mrs Boyce was 68 years old when she died from blood loss resulting from stab wounds to her abdomen. She was alive when stabbed. She was stabbed in the early hours of 22 October 2015 while she was lying unclothed in her bed under a sheet in her apartment in Brisbane.
3. The knife penetrated the sheet, then Mrs Boyce's abdomen, and its tip exited from her back. While there was a single exterior entry wound located on the upper left abdomen, 7.3 cm long and 2.4 cm wide, there were five internal wound tracks in total, two associated with a wound track labelled "track A" and three close to each other associated with a wound track labelled "track B". There were two (perhaps three) exit wounds from her back. This indicated that: (a) for track A, the knife had been plunged into the abdomen and withdrawn slightly then reinserted; and (b) for track B, the knife had been withdrawn from the body, so that about three to four centimetres of the blade remained within the body, and then rotated from the 10 o'clock (towards the head) to the 6 o'clock (at the feet) position before being reinserted, and then withdrawn by maybe only one centimetre before being reinserted again.
4. Track A involved two wound tracks through the liver, with one extending out of Mrs Boyce's back. Track A also cut through the inferior vena cava, a major blood vessel. The fact that track A cut the liver, as well as the renal vein, indicates that when stabbed Mrs Boyce was curled on her side or crouched forward. Track B struck and partially fractured a rib.
5. The knife remained in the wound after death. When Mrs Boyce's body was found, the entire blade and part of the handle of the knife were inserted into the abdomen, with the last part of the handle protruding out from the abdomen.
6. The knife which caused the wounds was from Mrs Boyce's kitchen. The length of the handle was 13 cm and the length of the sharp edge of the blade was 19.5 cm. The blade started with a sharp point and widened to a maximum width of 4.5 cm.
7. The estimated time of Mrs Boyce's death was between 1.45 am and 3.45 am on 22 October 2015. At that time the appellant was the only other person in her apartment. As noted, the appellant accepted at trial, and in both the Court of Appeal and this Court, that the only possibilities were that Mrs Boyce had died by suicide or that he had killed her.
8. The appellant called the police emergency line at 5.29 am and 5.33 am on 22 October 2015. When they attended the apartment, the police observed that Mrs Boyce's body was lying on her bed with her right hand under a pillow at her head and her left hand across her midriff with the tips of her fingers just in contact with the hilt of the knife. There was a significant amount of blood staining around the knife. There was a pack of diazepam on the bedside table. There was another blister pack of medication on the floor. The telephone on the bedside table was off the hook. It tested negative for blood. The end of the pillow near the wound on the right‑hand side of the body was stained with blood. There were no fingerprints on the handle of the knife. The only DNA recovered from the handle of the knife was consistent with the DNA of Mrs Boyce. The appellant's DNA was found only on Mrs Boyce's breasts.
9. There was evidence from a police forensic scientist who collected forensic evidence (but who was not a doctor) that the blood stains on the bed indicated a slow release of blood over time and minimal movement rather than a struggle on the bed.
10. Dr Ong also gave evidence that: (a) there were no observable defensive injuries on Mrs Boyce's body; (b) the injury to the inferior vena cava would have caused a "fairly catastrophic" and "profuse" haemorrhage severely impacting the body causing shock, probably within minutes, that is, within the first five minutes; (c) the degree of force required to inflict the wounds would have been mild to moderate; (d) the wounds may have taken up to five seconds to inflict; (e) the significant blood loss would not have occurred over the first five seconds but more slowly over time and it would have been at least a number of minutes before Mrs Boyce was weakened to the point of not being able to move; (f) the inferior vena cava is a major vessel and although it is difficult to estimate how a person withstands blood loss, there would be serious consequences (loss of consciousness) within a number of minutes, not seconds – it might have taken five minutes or it could have taken 15 minutes for unconsciousness to occur; (g) Mrs Boyce had an alcohol concentration in her blood of 0.049 per cent and the effect of this on her would be subjective, although the level is not very high; (h) Mrs Boyce had therapeutic levels of anti‑depressants and anti‑anxiety drugs in her system and Dr Ong would not know the combined effect of these drugs on her but these levels of drugs would not have prevented her from fighting back; and (i) a stab wound to the abdomen with a kitchen knife would induce a person's fight or flight response. As noted, Dr Ong also gave the impugned evidence.
11. Dr Ong gave further evidence that he did not observe any other wounds around the site of the stab wound which he would describe as "hesitation injuries". He explained that hesitation injuries are injuries in cases of suicide where a deceased has tested the pain involved with the intended stabbing, exposed by some stabbings around the fatal wound or such things as incisions of the wrist or neck. He also said that multiple stab wounds, by which he meant the multiple wound tracks in the body in this case, were not "a neutral feature" and "[w]hen there's multiple stab wounds this always points towards a – a possible second party involvement, but it's definitely not a definite feature to – for me to make up my mind".
12. A forensic examination of the appellant and his clothes did not disclose any injury to him or other evidence relevant to Mrs Boyce's death.

Mrs Boyce, her family, friends, and medical professionals

1. Mrs Boyce's husband and two adult children were aware of her mental health issues (she had been diagnosed with bipolar disorder and borderline personality disorder) and the effect of these on her behaviours, as well as on them. Their evidence, along with the evidence of others with whom Mrs Boyce had contact, forms an important part of the circumstances which must be considered.

Graham Boyce

1. Mr Boyce, the deceased's husband, was 71 years of age in 2020. He was a medical doctor in general practice. His practice was in Cairns and had been for 18 years. He went to Cairns for work as he could make more money there than in Brisbane.
2. He and Mrs Boyce started to live together in 1974 after he graduated as a doctor. They married in April 1976. She did some part‑time modelling and helped him in his medical practice with reception work. They lived in a few areas and came back to Brisbane in 1978 or 1979. She had trouble with anxiety and occasionally took Valium. She had first seen a psychiatrist in about 1975.
3. Mrs Boyce travelled to the United States in 1979 to see a friend who had married there. She came back about two weeks later. Mrs Boyce then told her husband a few months later that she had met someone (the appellant) in the United States and wanted to see more of this person. She returned to the United States about a week later. She moved to Houston, Texas. She and her husband remained in contact. Mr Boyce went to the United States for a conference, and he and his wife travelled together for about four to six weeks. She was still in a relationship with the other man (the appellant). Mr Boyce purchased a ticket for his wife to return to Australia. When Mr Boyce was back in Australia, hefound out she was in hospital and was too ill to come back. Mr Boyce flew back to the United States as he was very concerned about her. He first met the appellant while in the United States. He told the appellant that when she was well, Mrs Boyce would be returning to Australia with him. Mr and Mrs Boyce returned to Australia together. She was prescribed an anti‑depressant and Valium. She remained on anti‑depressant medication for the rest of her life.
4. Their son, Zachary, was born in April 1981. Their daughter, Angelique, was born in 1985. The family lived together in various houses. Mr Boyce got work in Cairns in the early 2000s. Mrs Boyce bought an apartment at Kangaroo Point, Brisbane, in 2002. She bought it for $1,725,000 which they were not in a financial position to be able to do. Mr Boyce took on the responsibility of paying the mortgage. He would fly in and out of Cairns to work, staying with his family when back in Brisbane. They would all come up to Cairns for holidays and, later, his wife would come up to stay with him independently. He paid all his wife's living expenses, the mortgage, her mobile phone costs, and credit cards. She always "maxed out" her credit cards which is why he was in Cairns working, essentially, a fly‑in fly‑out schedule.
5. His wife's depression started when her mother died, about 20 years before Mrs Boyce's own death. Mrs Boyce had been very close to her mother and there was a big family feud over her mother's will. When Mrs Boyce was depressed, she "wouldn't want to go out. She wouldn't take care of her appearance, just wanted to stay at home, didn't want to see people, which was very out of character for her." Her energy would be low, and she could not sleep. Mr Boyce arranged for her to see a psychiatrist. She was hospitalised in about 1995. She changed psychiatrists in about 2000. She remained on medication for the rest of her life.
6. During Mr and Mrs Boyce's relationship, Mrs Boyce said many times that she felt so bad, she wished she was dead. That was a common thing for her to say. She often mentioned jumping off the balcony of her apartment. Once when she was up in Cairns in 2015, she got the idea of slipping off the back of the ferry to Green Island and disappearing that way. Whenever Mrs Boyce was feeling bad or upset, she would say, "I'm going to jump off the apartment – off the balcony". Mr Boyce recalled once when he phoned the police because she had said she was "really going to do it. I've really had enough. I'm going to – I'm going to jump", and another occasion when she threatened to jump off the balcony and their son intervened. The time she said she was "really going to do it", Mr Boyce thought "well, maybe she really is; she's not sort of crying wolf". He phoned the police, and he then got an irate call from his wife as, when the police and ambulance arrived, "they came in and found her happily sitting down, having some supper and watching a TV show, and she was most upset that they were [there]. And she was most upset at me for dobbing her in and wasting the time of these good people."
7. From about 2013, Mr Boyce's wife mainly lived with him in Cairns because their son was in Cairns for about 18 months working at Cairns Hospital. Mr Boyce knew his wife had been in contact with the appellant and visited the appellant in New Zealand in 2013. The appellant sent Mr Boyce a letter thanking him for letting Mrs Boyce go to help the appellant. Mr Boyce did not know she had stayed in contact with the appellant after 2013 until she subsequently went to New Zealand. The last trip Mrs Boyce took to New Zealand was in September 2015.
8. Mr Boyce had to spend a lot of time in Brisbane in 2014 as he required medical treatment and he and his wife lived together at the apartment. At that time, his wife had major problems with depression. In December 2014 and January 2015, Mrs Boyce went to hospital in Brisbane three days a week over six weeks for treatment for her depression. Mr Boyce always went with her. After they had both finished treatment in Brisbane in the early part of 2015, they went back to Cairns to live. Mrs Boyce was very depressed – she did not want to do anything. Mr Boyce looked after her. By July, however, Mr Boyce said, "lo and behold, Maureen had been to the hairdresser; she'd been to the nail lady. She'd been and got her legs waxed, and found some new clothes, and was putting on her makeup" and they went out. She was a bit tentative at first and then was "the normal Maureen for the rest of that night". There was always the worry for Mr Boyce that she might go too much the other way and "start doing silly things like running out and thinking she was invincible and buying clothes and could spend money anywhere that would miraculously appear". The psychiatrist had said to her that, if she got back to normal, she should come to see him as he could drop her anti‑depressant medication down to make sure she did not become too hyperactive. On the advice of her psychiatrist, Mr Boyce would issue the scripts for his wife, and he knew the medication she was on. Mrs Boyce took her medication every day or night. She did not drink much. They would share a bottle of wine when they went to dinner and occasionally have a small glass of limoncello.
9. At this time, Mr and Mrs Boyce owned the Brisbane apartment, the Cairns property, an apartment on the Gold Coast, and an apartment in France. Because Mr Boyce might not be able to work for much longer, they decided to sell the Brisbane apartment and move to a smaller place in Brisbane, and spend their time in Brisbane, on the Gold Coast, and in France. They liked the building that the Brisbane apartment was in, and their son also lived in that building, so they looked at purchasing a smaller apartment in that building or the identical building next door.
10. By August 2015, Mrs Boyce, with her mood improved, wanted to catch up with friends in Brisbane and arrange the sale of the Brisbane apartment. Because she was then mentally but not physically well (she had been having blackouts due to high blood pressure), Mr and Mrs Boyce agreed to keep in close phone contact. If she did not answer, Mr Boyce would get their son to check on her. Whenever they were apart, they would speak a couple of times a day.
11. When Mrs Boyce did not answer his calls one day in September 2015, Mr Boyce was "very afraid that something had happened to her, whether she'd had a heart attack or she'd blacked out and fallen and injured herself". He called their son to check on her and their son tried to call her. She answered and said she was about to board a plane to go to New Zealand to see the appellant and had put a post on Facebook about it. Mr Boyce looked at her post. He was not happy at all. He had no inkling of her ongoing relationship with the appellant. Mr Boyce thought that relationship had finished. He said, "I was terrible, actually – terrible". He put a post on her Facebook page saying, "[c]rash, slut".
12. Mrs Boyce contacted him from New Zealand. Mr Boyce was really upset and very confused. She said she was coming back to Brisbane and asked if he would join her there and he said no as he was not ready to see her at that time. Later, in October 2015, when she was back in Brisbane, his wife, "once again, did her trick of signing a cash contract when there wasn't any cash" for an apartment in the building next door. He put a stop to that going ahead. Mr Boyce said that the only time they ever spoke about divorce was when he put a stop to this purchase of the apartment in the building next door. She was unhappy about that, and he was unhappy about her going to New Zealand. She said she was going to go to a lawyer and get a divorce but, according to Mr Boyce, "that idea lasted a day or two".
13. By about a week after she returned from New Zealand (on 25 September 2015), Mr and Mrs Boyce were back in regular contact including about the sale of the Brisbane apartment. Their "animosity had mellowed". She told Mr Boyce that she was having nothing more to do with the appellant, and that the appellant had told her he had found help for depression from a meditation course there and she mainly went to New Zealand to do this meditation course. As Mr Boyce put it, this "sounded semi-plausible" and "[a]nyhow, we decided to push on, and these other properties started to appear that were basically what we were looking for once we had sold her penthouse". Mr Boyce tried to arrange for her to see Dr Kennedy as her psychiatrist, Dr Spelman, was away.
14. Mrs Boyce spoke to her husband on 21 October 2015. There were people coming at about 6 pm to inspect the apartment again who "had shown a lot of promise". She called him at about 6.30 pm or 7 pm that night and told him the people were not going to buy the apartment. She said, "it's okay. It's disappointing for us" and that on Monday (which would have been 26 October 2015) she was going to give the apartment to another agent whom she was "particularly keen on". The agent had told his wife that "she's got people lined up for it" and "she'd have it sold within a week or two". His wife was "quite reassuring" to him, and he was probably more disappointed than she was about the apartment not selling. He then fell asleep watching the TV. His wife then called him again at about 7.30 pm or 8 pm saying the prospective buyers had called and wanted to see the valuation Mr Boyce had and that if Mr and Mrs Boyce were prepared to accept that valuation, which was $3.5 million, the prospective buyers would purchase the property, and his wife "sounded quite happy about that". His wife was "very adamant" that Mr Boyce should get hold of the valuation which he did not have in the apartment (it was at work), and she asked him to get the valuation and send it to her "ASAP the next morning". She did not swear at him during this conversation. She "wasn't someone who swore". She said, "make sure you get it" and "[i]t's very important for you to just get down [to your workplace]" so he could send her this valuation. She was speaking "fairly loudly and very definitively, which was a bit abnormal" but she was not slurring her words. It was just "Maureen being very assertive". That was the last time Mr Boyce spoke to his wife.

Zachary Boyce

1. Mrs Boyce's son, Zachary, was born in 1981. He is a dermatologist. He lived in an apartment in the same building as his mother. He had also previously lived in his mother's apartment with the family (mother, father, and sister) and, later, he lived long‑term with his mother in that apartment. His sister, Angelique, also lived with them in Brisbane before she moved out and bought her own apartment.
2. Zachary bought his apartment in the building in 2014 when he returned from Cairns where he had been on a training secondment. While in Cairns he lived with his father. His mother had also come to Cairns to live with them for parts of 2013 and 2014. His father had come to live with his mother in Brisbane in 2014 when his father was diagnosed with a serious medical issue. His mother looked after his father while he had treatment in Brisbane. Zachary said that after his parents purchased the Brisbane apartment in about 2003 and his father moved up to Cairns for work "[his father] would come down and stay with Mum or Mum would go and spend significant amounts of time with [his father]". In Cairns, they used to go fishing and snorkelling which they all loved.
3. His mother had told him that, before he was born, she had separated from his father and lived in the United States where she met the appellant. After an incident there she came back and lived with his father. Zachary had no contact with the appellant until 2013. When his mother was fighting with Zachary, she would say that the appellant was his biological father. She would say it as a way to hurt him. Zachary never really believed it. He did not think much about the appellant until 2013 when he wanted to work in the United States as an actor and asked his mother to contact the appellant to see if the appellant could help Zachary get a United States passport. His mother contacted the appellant's mother, who said the appellant was living in New Zealand, and contacted the appellant at Zachary's request to discuss getting Zachary a United States passport. The appellant then came over and visited Zachary and his mother in Brisbane and they went out to dinner. They spoke about the possibility the appellant was his father, but it was "always speculation" according to Zachary. Zachary did not have any strong connection with the appellant and did not have much to do with him after the dinner. His mother had also been to New Zealand a few times after 2013 to "see if she could obtain a US passport for [Zachary] as [the appellant] had told her he wouldn't consider it unless she came and visited him personally over there." She also went to New Zealand to help the appellant with his bipolar disorder and alcoholism and took the appellant to see a psychiatrist and to start medication.
4. Zachary said:

"I was extremely close to Mum. We would chat at least once a day about our various things that were going on in life. I was quite stressed at the time with study, and so she'd comfort me with ... providing me with encouragement that I can keep going and doing this, and I'd talk to her about, say, what was going on in her life as well."

1. Zachary would also see his mother a few times a week depending on where she was living. She spent a lot of time in Cairns at the beginning of 2015.
2. Zachary knew his mother had bipolar depression. He said that "[w]hen she was depressed it was pretty awful to see. She would sleep all day. She wouldn't get out of bed till late afternoon. She wouldn't want to go out and see her friends. She'd cancel appointments that she had. She ... wouldn't take pride in her appearance. She wouldn't get dressed. She wouldn't put makeup on. She wouldn't really want to see me. I'd try and encourage her to – to get up and do things." His mother had regular bouts of depression and, when she got over those, would be in a happy, healthy mood. Once or twice, he had seen her in a manic phase, which he found distressing. A manic phase made her quite sexually promiscuous. She would get up early and would not go to bed until late into the evening or early morning. He knew she was on medication, including an anti‑depressant, a mood stabilising drug, and Valium, which is a sedative or relaxant that "makes someone quite drowsy".
3. His mother had talked about suicide in the past. She only did this when severely depressed and she had only ever spoken about jumping off the balcony. His mother was "often prone to melodramatic gestures and she would often say things to invoke a ... response from me or somebody ... but she would always say after she was talking about it or thinking about it that she would never be able to go ahead with it because of my sister and I, and she'd never want to leave us alone". In 2009, his father had called him to check on his mother and Zachary found her standing on the balcony, peering over. When she saw him coming, she went to lift her leg as though getting up on a chair. He yelled at her "[w]hat are you doing? Don't be silly. Get down from there", and she instantly got down and came inside and said "[d]on't worry, darling. I would never go ahead with it. I just didn't like the way I was feeling. I wouldn't want to leave your sister and I [sic]." Zacharycould not recall her mentioning suicide to him since that incident in 2009. He had no recollection of her mentioning suicide in 2015.
4. His father had been living with his mother in the apartment in Brisbane, and they then went up to Cairns together until August 2015. His mother had been feeling depressed and his father had complications from his treatment, and they were looking after each other. While they were in Cairns, Zacharyspoke to his mother and father almost every day. His sister got married in May 2015. His parents came down to Brisbane for the wedding, at which his mother had a great time. His mother also came down to Brisbane to prepare the apartment for sale. His parents had a lot of furniture in the apartment. They had told him they wanted to downsize from that large apartment (it was four bedrooms) to a smaller apartment for them to live together in Brisbane. They really liked his two‑bedroom apartment in the same building and wanted to move back from Cairns so his father could semi‑retire and they could both be closer to their children. His mother had put an offer in on a smaller apartment in the building next door.
5. Zacharydid not know his mother was going to New Zealand in September 2015 until his father asked him to check on his mother on 11 September 2015. When Zachary called her, his mother said she was at the airport about to leave for New Zealand. Zachary sent her a text saying, "Dad's very upset that you would spend his money to go over there, and now he can't pay his tax bill". She sent a reply saying, "[the appellant] sent me the ticket to New Zealand. I did not spend Dad's money!!" He then sent her a text saying, "[y]ou only phone Dad or hang around him when you need something, when you're depressed or need money. It's terrible." Zachary's evidence was that "[w]e'd often say things like this".
6. Zachary picked his mother up from the airport when she came back from her trip to New Zealand on 25 September 2015. She had bought presents for her yet to be born grandchild, Julius (who was born in February 2016). She was "excited to be a grandmother and babysit and help [his] sister though the final stages of her pregnancy and delivery".
7. After the appellant arrived from New Zealand on 6 October 2015, his mother told Zachary that she was in a sexual relationship with the appellant. He sent his mother a text on 11 October 2015 saying, "[d]isgusting you would have someone there when Dad is sick and working". He did not like what his mother was doing. His mother said that the appellant "arrived severely depressed, and she hope[d] that he [did not] stay very long because she was trying to sell her apartment and had to keep it clean". Zachary did not want to see or be involved with the appellant, but his mother wanted his help to get rid of the appellant who was sleeping all day and drinking two to three bottles of wine after she went to bed at night, and she wanted the appellant gone from her apartment.
8. Zachary last saw his mother the Friday night before her death (16 October 2015). Zachary and his mother had dinner together and saw *Strictly Ballroom*, the musical, at the Queensland Performing Arts Centre. She was in high spirits and glad to be away from the appellant for the evening as she was sick of him staying with her. She said she had not directly asked the appellant to leave at that stage but had been hinting at it. Zachary and his mother "had a great night together". Zachary spoke to his mother again, probably over the weekend. He asked his mother whether she had asked the appellant to go yet. She said she had but the appellant refused to leave and did not have the money for a plane ticket back to New Zealand.
9. Zachary also spoke to his mother the evening before she died (21 October 2015) at about 9.30 pm. He called his mother initially and she did not answer but she then called him back (this occurred at 9.25 pm on 21 October 2015 according to the phone records). Zachary said:

"Mum sounded in high spirits, she said that they had both just been down to Oxford Street, to the Citrus Café restaurant, went out, had a lovely meal. She said that they do a great steak and wine – glass of wine – for $10, and she said that we must go there sometime, and I said, 'yes, that sounds great'. Mum sounded a little tipsy at the time, and I said to her, 'Are you okay?' And she said she'd had a couple of glasses of wine with dinner, and that was also around the time that she took her medication, which made her very drowsy. She also said to me that she was excited, because when they'd been out, and the real estate [agent] had shown someone through the apartment, that they have a buyer for the apartment as well. I could hear the TV on ... I said goodnight to her, and she said, 'I love you', and that was the last time I spoke to Mum."

1. Zachary said his mother sounded a bit tipsy, a bit drowsy, during this conversation. He said, "[s]he was a very happy drunk ... she would be laughing".
2. Zachary also said that his mother had arthritis in both her hands and would call him up from downstairs to do things for her (his apartment was below hers in the building). He said, "[s]he would often ask me to open jars for her, that she couldn't open when I was living with her at home. ... She'd often drop things around the kitchen table when she was serving dinner. We constantly had the carpet shampooers at the apartment, cleaning up all the food that – and red wine that had been spilt around the carpet". Zachary liked cooking, often making a stir‑fry, "and she'd often comment how impressed she was with my ability to chop food, and that she wishe[d] that she could do it like that as well".
3. Zachary said that his mother and sister often had a "colourful relationship". They had grown closer as his sister got older. His mother "was the first one to not really listen to what [his] sister was saying, because [arguments] happened so often". His mother and sister had another argument when his sister found out their mother visited the appellant in New Zealand. His mother and sister were not talking at that time, which was very common for them. His mother "wasn't one to hold grudges", however.
4. Zachary also knew Kenneth McAlpine, who had been his parents' gardener and handyman. He did not think his mother had seen Mr McAlpine since the family moved to the Brisbane apartment, except for September 2015 when his mother had invited Mr McAlpine over to the apartment to watch "Riverfire", an event in Brisbane.
5. After his mother met the appellant again in 2013, she sent her son text messages saying that it would never have worked between her and the appellant given the appellant's mood outbursts and both of them having bipolar disorder. She had also sent her son a text saying she would never leave her husband, his father, and that, after all these years, she realised it was her husband she wanted to be with.

Angelique Pennisi (née Boyce)

1. Angelique is the daughter of Mr and Mrs Boyce. She married Andrew Pennisi in May 2015. Their son Julius was born in February 2016, and they then had a daughter in 2019. She was a business banking executive.
2. When Angelique was in school, her father, who was working in Cairns, would come to Brisbane regularly and the family would visit him in Cairns every school holidays.
3. Before her marriage, Angelique had arranged to go with her mother and her mother's friend, Sarina Russo, to Melbourne to try on her wedding dress. Her mother could not go, however, as she was going to New Zealand. Angelique said, "[l]ike every mother and daughter, [they] had a fight" about it. Angelique did not speak to her mother for some time after that event. That was not the first time they stopped talking, as they "constantly would have little fights". Angelique said, "we would make up, eventually, but I'm quite stubborn".
4. Her mother came to her wedding, and they continued to have contact afterwards. Angelique found out she was pregnant in June 2015. Her mother was "very excited ... she was going to be a grandmother for the first time". They talked a lot about the baby and her mother was "really involved in [her pregnancy]".
5. In September 2015, Angelique saw a photo on a social media site suggesting that her mother was going to New Zealand. Angelique reacted "terribly" to that. She called her father. She was very upset and asked him what her mother was doing, and they had a chat about it. Angelique was heavily pregnant at this time and very emotional. She sent her mother a text message saying, "[y]ou have ruined our family Maureen. I want nothing to do with you ever again. Stay away from Dad, Andrew, Me and my baby boy. You will never ever meet your only grandson!!!!! You have caused this. You slut!" She sent this message because she wanted to show her mother that she did not accept her behaviour. Angelique said that while her mother subsequently sent her texts, she did not reply. Instead, Angelique's husband spoke to her mother "to reassure her". Her mother's texts also moved on to different subjects, so Angelique knew her mother was "okay". Angelique said that "[t]here were, unfortunately, multiple men in [her mother's] life" which, as Angelique had "high morals", she did not agree with, and which had contributed to her decision to move out of home.

Andrew Pennisi

1. Mr Pennisi is married to Mrs Boyce's daughter, Angelique. He said he would see his mother‑in‑law regularly, about once a month. He last spoke to Mrs Boyce about two to three weeks before her death. She would often call or text him. She told Mr Pennisi she had some gifts for Julius, who was not yet born, and was looking forward to giving them to him. His wife and her mother did not speak to each other "all the time", as his wife has "very high morals" and is "very stubborn".

Sarina Russo

1. Ms Russo first met Mr and Mrs Boyce in about 1979 when they became neighbours. They were "a dream neighbour and dream friends that we evolved into". They stayed friends after Mr and Mrs Boyce moved. Ms Russo had such a "fabulous friendship" with Mrs Boyce that she asked Mrs Boyce to become her business partner, but Mrs Boyce declined as she wanted to have a family. Ms Russo became absorbed in her business, but they reconnected from time to time. Then Ms Russo's nephew, Andrew Pennisi, met (and then, in 2014, married) Angelique Boyce, and that rekindled Ms Russo and Mrs Boyce's friendship. Thereafter, Ms Russo had regular contact with Mrs Boyce, saying, "it was a really embracing relationship ... it was just a joyful journey". Ms Russo assisted with paying for the wedding. She and Mrs Boyce were involved in planning the wedding.
2. Ms Russo knew Mr and Mrs Boyce wanted to sell the Brisbane apartment. Ms Russo put them in contact with a real estate agent and said she would help sell the apartment as "real estate is what [she] love[s] doing". Ms Russo last saw Mrs Boyce at a lunch on 3 October 2015. Ms Russo dropped Mrs Boyce home and said, "[l]ook forward to seeing you at my mother's big 102 birthday party at my house". Her mother's birthday was 29 October. Mrs Boyce was "very happy. Very excited. Loved our family. You know, genuinely was very authentic in how she felt." In the evening of 21 October 2015, Ms Russo received a call from Mrs Boyce. Ms Russo's evidence was:

" ... she said that she was very, very [indistinct] and couldn't understand how I ran a business as large as I did and how I managed the stress. And I said it was very easy, because it didn't happen, like, yesterday. So I just said, 'What is it that's causing you to feel stressed,' and she said that the prospective buyer had changed their mind, and, you know, she really wanted to sell the apartment.

All right. So you say that she was stressed. Did she tell you that she was stressed, or did she sound like she was stressed?---No, no. She said that she was stressed. And, you know, of course she thought she had the buyer, and then the buyer withdrew, and any other natural person would feel disappointed.

Okay. So what happened then when she told you that? What did you do?‑‑‑Well, you know, I got her to talk it through and said, 'You don't give it away.' And I said that, you know, there'll be other buyers, and, yeah.

All right. Now, was there any discussion about a bank valuation?---Yeah. She talked about a bank valuation.

...

Was there any discussion about dropping the price of the unit?---She said she was – yes. She was prepared to drop the price of the unit by about $500,000.

All right. Okay. Now, was there any discussions of future plans between the two of you?---Absolutely. So, once again, Graham and Maureen really embraced, you know, our – our renewed relationship. And, you know, by this time Angelique was married to Andrew, and still is, and was expecting her first child. And she was invited to my mother's 102nd, and, you know, we really celebrated big when Mum had, you know, her birthdays, because they were very unique. And we were very excited to talk about Mum's 102nd birthday.

All right. And that occurred during this telephone call that night?---Yes. She said, 'I'll see you on your mother's birthday,' which was the 29th of October.

All right. Thank you. Now, did you do anything after the telephone call ended?---Yes. I did send her a text and said stay strong or stay positive."

1. Ms Russo sent a text to Mrs Boyce saying, "[s]tay positive! Luv Sarina" at 9.04 pm. Ms Russo had never heard of the appellant.

Rosslyn Tilse

1. Ms Tilse knew Mrs Boyce through mutual friends. They met well over 30 years ago. She knew Mrs Boyce had some mental health issues but did not observe any mood changes in Mrs Boyce. Mrs Boyce had told Ms Tilse that she was on anti‑depressants. They got on "really, really well". Mrs Boyce was "happy". They would go to lunch, go shopping, go around to each other's places, have coffee, go around to each other's gardens, and "just hang out". Mrs Boyce "did up her garden, and was really happy doing that". Ms Tilse knew that when Mrs Boyce had been depressed on one occasion she had to live somewhere else. Ms Tilse said, "I think the – her doctor was changing her from – from one lot of – one kind of antidepressants to another, and she moved up to Cairns with Graham and Zachary".
2. Ms Tilse went to the wedding of Mrs Boyce's daughter. Mrs Boyce "seemed very happy. She was up dancing and chatting to everybody". Later, Mrs Boyce told Ms Tilse she had felt very depressed at the wedding.
3. Ms Tilse last saw Mrs Boyce in a restaurant in Brisbane for lunch. They were just catching up as they always did. They mainly talked about "[Mrs Boyce's] daughter Angelique [who] was pregnant and she was just so happy that she was going to be a grandmother and she had been out buying baby clothes that morning and she bought everything that matched everything. We just discussed how happy she was that she was going to become a grandmother." Mrs Boyce had told Ms Tilse about the appellant. At the lunch Mrs Boyce said, "it was all over and now that Angelique was having a baby and Graham wasn't well, what kind of woman would she be if she left her family". Mrs Boyce did not mention that the appellant was coming to Brisbane to stay with her.

Amanda McPhee

1. Ms McPhee met Mrs Boyce through Ms Tilse in the early 2000s and the three became quite good friends. They spent a week together overseas and talked quite a lot to each other after that. Ms McPhee had also met Mr Boyce and Zachary Boyce. She also very briefly met the appellant. Ms McPhee had encouraged Mrs Boyce to take French lessons and when Mrs Boyce invited Ms McPhee to her apartment to discuss the lessons the appellant was there. Ms McPhee knew who the appellant was from previous discussions with Mrs Boyce. While they were overseas together, Mrs Boyce had told Ms McPhee about "the family history, and the relationship with [the appellant], and her subsequent return to Australia, and the birth of Zach – and those circumstances" in the United States.
2. Ms McPhee knew that Mrs Boyce had been going to Cairns. She said she knew "Maureen had difficulty with depression, which is not an unusual thing, and I think that's probably one of the things that drew us together. She was quite open with me about her issues". Ms McPhee knew Mrs Boyce was on medication for depression.
3. Ms McPhee found out that Mrs Boyce had taken a trip to New Zealand and was telling people that Ms McPhee was on the trip with her. This was not true. Ms McPhee said that she "understood why [Mrs Boyce] did it. I didn't condone it, and yes, I was upset", which is what she told Mrs Boyce.
4. Ms McPhee last saw Mrs Boyce in a restaurant in Brisbane for lunch with Ms Tilse. Ms McPhee had been away and "was very impressed with how well [Mrs Boyce] looked when [Ms McPhee] saw her". Ms McPhee said:

"We talked a little bit about what I had been doing, we talked a lot about Maureen's looking so well. She was over the moon about becoming a grandmother. We talked about her son, Zach, and the fact that, you know, he was studying and working very hard. I think it was at that lunch she mentioned that he was living in the same building – that was the first I knew of that – and just general conversation."

1. Mrs Boyce also said during this lunch that she was terminating her association with the appellant and that was "over". Then Mrs Boyce took a phone call. It was the appellant and Mrs Boyce said it was "his birthday or something" (the appellant's birthday was on 2 October). Ms McPhee and Mrs Boyce planned to meet for a yoga class on the following Sunday, but Mrs Boyce cancelled that meeting.

Delphine Neilson

1. Ms Neilson first met Mrs Boyce "about 15 years ago" through a friend of a friend. She had probably met Mrs Boyce about six times in total. Ms Neilson only saw her with another friend. She received a call from Mrs Boyce in the afternoon on the Tuesday (20 October 2015). It had been years since they had spoken. Ms Neilson said:

" ... she called, you [know], said 'It's Maureen, hi' and I said 'Hi' and she just – I think she was just sort [of] reaching out. She sounded very, very down, very out – very depressed. And she just – and I just didn't really know why she was calling me, but she said that, you know, her husband, Graham that she had been living in Cairns with her husband, Graham, on and off, and that Graham was coming back to Brisbane to practice as a doctor ... So he's coming back to Brisbane to practice. I said to her that I was really sorry to hear that, and – and I said, 'Well, why would he be coming back to practice if he's so ill?' And she said, 'Financial problems'. I said, 'Oh well', and she said, 'So he has to do that and we may have to sell the unit', but she said, 'I'm just very, very – very, very depressed, Delphine'. She said, 'I've tried to commit suicide.' She didn't say when or how or anything like that. Next thing anyway, I couldn't quite make out the words, but she said to me there's either, 'A knock at the door', or, 'I'm on another call', and that was the end of the conversation. I never heard anything more."

Kenneth McAlpine

1. Mr McAlpine first met Mrs Boyce in either 1999 or 2000 through a Mr Joff. He understood that Mrs Boyce was no longer in an intimate relationship with her husband and was in a relationship with another man. Mrs Boyce employed Mr McAlpine to do some landscaping for her at the property where the Boyce family lived. Mr Boyce was then practising in Cairns. After some time, Mr McAlpine and Mrs Boyce developed a relationship. They got on extremely well. It became a sexual relationship. The relationship continued for about a year and a half. He knew she had depression and they talked about that frequently. After he moved to New South Wales in about 2002 or 2003, they had intermittent contact. Mr McAlpine returned to Brisbane in 2009. He received a text from her saying she was engaged. Sometime shortly after that she said she had broken the engagement. He could not recall when this occurred, but it was after 2009. By then Mr McAlpine had developed some health issues and depression so they "understood each other well". He had no recollection of her telling him at any time that she was on suicide watch, saying "[p]erhaps it's something that I blanked out", "[b]ut I'm pretty sure that I would have given it an immediate response if I considered that important".
2. Mrs Boyce invited Mr McAlpine over on 26 September 2015 to see the "Riverfire" event in Brisbane. He went to her apartment. They talked and had a few drinks. They did not resume their sexual relationship, which had ceased in the early 2000s. He may have contacted her the next day to say thank you. About a month later she contacted him, but he missed the call. She left a message. Mr McAlpine believed this call was on a Wednesday. The message was that "she had some people visiting from New Zealand, but there was one fellow who she couldn't get rid of", and included her saying, in what Mr McAlpine described as an almost "light‑hearted way", "[p]erhaps you can help me get rid of him". Mrs Boyce's phone records show that she called Mr McAlpine at 10.54 am on 21 October 2015. Mr McAlpine was caring for his mother, and he could not get back to Mrs Boyce until his sister came about midday on the Friday afterwards. He called her and got no response, so he left a message.

Colin Walsh

1. Mr Walsh was the real estate agent for the sale of the Brisbane apartment. He received a referral for the sale in about June 2015. He met Mr and Mrs Boyce, and they engaged the agency he worked for to conduct the sale. Mr and Mrs Boyce said they wanted to downsize. The apartment was immaculately presented.
2. They had an inspection arranged on 21 October 2015. Prospective buyers were coming back for another inspection. Mr Walsh had a swipe key to get access. He arrived about 6.15 pm for an inspection scheduled for 6.30 pm. When he was in the apartment, there were no wine glasses or wine bottles out. He called Mrs Boyce at about 7.10 pm to let her know they were leaving. He then dropped the prospective buyers back in the city after the inspection. He then called Mrs Boyce again at around 7.40 pm on 21 October 2015. He said:

"It would have been: 'the inspection didn't go as well as I would have hoped'. Again, large apartment, said buyer would want to buy it, and they were just of the opinion that it may have been a little bit big for them, and also there might have been a little bit more work that they needed to do to the property than what they liked. So that was, from memory, the conversation that the buyers had with me, because I definitely asked them very clearly: 'what's your interest levels?' And they didn't say that they were not going to buy it; they said that they are still considering it; that they are their major thoughts at the moment, that they may not because of size and renovations that are needed. So I would have definitely let Maureen know that".

1. Mr Walsh said, "I don't think she, like, she enjoyed the news; she was very keen to see these buyers place an offer; we all were. Obviously, it's been on the market for a couple of months, and – so I wouldn't sit here and say that she was very happy about the news, but it's like anything else. You have to give the clear information back to the owner, and they can process it." Mr Walsh said, "[s]he wasn't crying or anything like that; she was obviously disappointed and really would like an outcome for the sale, but I can't remember her being upset to the level of crying or anything like that. It was just, basically, she was disappointed that we couldn't – that those buyers may not purchase the property."
2. Mr Walsh and Mrs Boyce had another conversation at about 8.20 pm or 8.30 pm on 21 October 2015 in which they were "talking about other ways how we can try and generate an offer by providing a valuation that Maureen had told me that they got or had – had possession of". In this conversation, Mr Walsh said:

" ... it was just basically along the lines of, you know, 'Let's not give up hope. These people do like the property. I've just got some work to do regarding what it's going to cost to – to refurbish to what they're looking for, and if we can have any proof or evidence or facts of what it has been valued at previously, that will obviously help us to be able to provide them with an indication of the price that was asking is fair and reasonable.' So that was definitely a part of the conversation, and I also said that we may have other people that are still looking and, you know, it's not all – it's not all doom and gloom and that, you know, we can still get the property sold, 'I know that's what you want to do. That's certainly my–my–my want,' and – and I think the conversation ended in a, 'Okay. Let's move forward. Let's get what we need to do and let's see if we can't get these people to put an offer on a contract.'"

1. The apartment was originally on the market at $3.5 million but they were trying to achieve anything from $3.2 million up.

Eugene Estella

1. Dr Estella is an endocrinologist. He saw Mrs Boyce in March 2015 when she was in hospital with mild pneumonia and high blood pressure. He saw her about a month later to do hormone testing. She came with her husband. They were together at all her appointments with Dr Estella. She was looking quite well and had recovered from pneumonia, and they were looking at her blood pressure. She was on olanzapine and venlafaxine which are not known causes for elevated blood pressure. He knew of her bipolar disorder diagnosis. He prescribed a vasodilator for her high blood pressure. By May 2015, her blood pressure was well controlled. She and her husband raised oestrogen replacement. Mrs Boyce trialled an oestrogen patch on the basis that, if need be, she could also trial low dose testosterone. When the oestrogen patch did not do anything for her wellbeing and libido, she tried a testosterone cream in June or July 2015.
2. None of the drugs Dr Estella prescribed would have interacted with her other medications.

Mark Spelman

1. Mrs Boyce had been under the care of Dr Spelman, a psychiatrist, since 2001. He took over her care from another psychiatrist. Mrs Boyce had been diagnosed with both bipolar disorder and borderline personality disorder. Dr Spelman explained that while Mrs Boyce was originally diagnosed with a depressive disorder, it became apparent that she also experienced abnormally elevated moods which indicated bipolar disorder. Bipolar disorder is associated with feeling elated and grandiose, occasionally irritable and angry. Bipolar disorder can also involve a reduced need for sleep and reckless behaviour and can escalate to experiencing psychosis and losing touch with reality. While bipolar disorder is a phasic illness that comes and goes with no symptoms at times and significant symptoms at other times, borderline personality disorder involves more enduring patterns of behaviour, approaches to life, and interactions with people. Mrs Boyce was "somewhat unstable in terms of her personality functioning". She was "very flamboyant". Her moods went up and down on a daily basis. She showed lots of poor judgment. She was "quite impulsive in terms of relationships and other things". She had difficulty being on her own and her husband was away a lot working in Cairns. Dr Spelman also met Mr Boyce on several occasions when he attended appointments with Mrs Boyce.
2. Dr Spelman said:

"When she was depressed she was pervasively sad and unhappy, she would – her self-care was reduced, she would tend to not shower regularly, she would have difficulty with her sleeping, she would have trouble getting out of bed in the morning. The symptoms were significantly worse in the morning. She'd often lie in bed all day. She would almost exclusively try and avoid sort of contact with any other – anyone else and would just keep herself to herself in her unit."

1. They had tried many medications and on a number of occasions she had been admitted to hospital for treatment including rounds of electroconvulsive therapy ("ECT"). ECT is not undertaken unless the person is experiencing serious depression and not responding to treatment. The medications were only ever partially effective in controlling Mrs Boyce's mood disorders. ECT was helpful. She had ECT from March to April 2008, November to December 2014, December 2014 to January 2015, and April to May 2015. Hospital notes record for her last admission in April and May 2015 that her stressors were that "her husband had been diagnosed ... and that her daughter was due to marry in the coming weeks", and she had been trialled on a new anti‑depressant that had not helped and was restabilised on venlafaxine which had not yet begun to work. Mrs Boyce wanted to try to improve her mood before her daughter's wedding.
2. When she was in an elevated or hypomanic mood Mrs Boyce was energetic, highly social, and quite reckless in terms of spending. Dr Spelman said, "[a]s a general rule she tended to avoid me when she was elevated. When people are depressed, they are fully aware that they're unwell, when they're elevated they just feel better and they – and they lose some awareness of that as being abnormal and – which as a consequence until it became too sever[e] would tend to avoid seeking treatment to try and end that sort of state." Mrs Boyce often became non‑compliant with treatment during her hypomanic phases (that is, she did not take her anti‑depressants), and this would bring her mood back down.
3. When she was depressed, Mrs Boyce had suicidal ideation which involves thoughts of wanting to end one's life. This can progress to suicidal intent. There is "the ideation, planning, intent, action, reaction". Mrs Boyce had ideation. She would often express suicidal ideation when significantly depressed. It never progressed beyond ideation in discussions with Dr Spelman. After she died, he became aware of one episode of her attempting to climb over a balcony while her son was there which Dr Spelman said would be "a significant step up from suicidal ideation".
4. Dr Spelman said, generally, people with depression are not at risk of self‑harm (as opposed to suicide). "People who have a borderline personality disorder at times would be considered to be more likely to engage in self‑harming behaviours." Mrs Boyce never expressed self‑harming behaviours to him. She never engaged in any self‑harming behaviour.
5. After Mrs Boyce was discharged in January 2015, she went to Cairns. Dr Spelman's notes record on 19 January 2015: "[p]honed, doing well, will arrange further appointments when back in Brisbane". She had an appointment in person in Brisbane on 2 February 2015. Dr Spelman's notes record she was taking two milligrams of Valium or diazepam and was "sleeping up to 10 am". Valium was used by Mrs Boyce to help induce sleep. She was still depressed when he saw her on 2 April 2015. She had been in hospital with pneumonia, was having trouble with blood pressure, and her husband's health was still a significant concern to her. At that stage she was taking "Pristiq or desvenlafaxine, 100 milligrams a day; olanzapine or Zyprexa, five milligrams, which is a mood stabiliser; and five milligrams a day of diazepam, which is the benzodiazepine" and it was agreed she would trial a new anti‑depressant. Five milligrams of diazepam is a "lowish" dose.
6. Dr Spelman saw Mrs Boyce on 27 April 2015. His notes record that she was sleeping 12 hours a day and "still suicidal". Her daughter's wedding was approaching, and she remained concerned for her husband's health. The new anti‑depressant had no effect. She was switched back to Effexor at a dose of 250 mg daily and her olanzapine was increased to 10 mg at night. She wanted ECT. Dr Spelman considered she had deteriorated, and it was important for her to get well for her daughter's wedding. She was admitted for ECT on 30 April 2015 and discharged on 14 May 2015. Dr Spelman's last notes concerning Mrs Boyce from the hospital record, " ... mood significantly improved, memory working much better. Discharge today, given treatment scripts, see in my rooms in two weeks."
7. Dr Spelman saw Mrs Boyce with her husband on 17 June 2015. The notes suggest there were not "big issues with her mood". Dr Spelman next spoke to Mrs Boyce with her husband on 20 July 2015. She was still depressed, and he increased the dosage of Effexor. There is no record of her speaking about suicidal ideation. An appointment was planned for 3 August 2015, but it was cancelled as she was in Cairns. Mr Boyce contacted Dr Spelman's rooms in September and October 2015 when Dr Spelman was on leave.
8. A note from Dr Spelman's clinical practice co‑ordinator of 29 September 2015 records, "[p]hone call from husband Graham (Cairns) concerns re Maureen. Manic, unsettled, stopped taking medication. Recently went to New Zealand ... on an impulse ... Wanting to put a contract on a luxury unit – $1 billion [scil $1 million] ... Graham able to intervene with this decision. Refusing at this point to take her medications or to attend for a review appointment with Dr Kennedy ... Query list for admission."
9. Another note from Dr Spelman's practice of 1 October 2015 records, "further contact with Graham. Things are settling. Talking with Graham and son now. (Had been refusing to do so). Recommencing medications. Inquired re appointment if required and to contact Dr Spelman's rooms if required."
10. Dr Spelman said he had the impression that "the fact that her daughter was pregnant was going to be a significant protective factor in reducing her suicidality", but "she also had significant concerns about her husband's wellbeing and health" and "they had been attempting to sell their unit in order to reduce their financial burden and to get him down to Brisbane so he didn't have to work as much".
11. In cross‑examination, Dr Spelman accepted that "people who suffer from bipolar disorder have an increased risk of suicide as a result of that illness" and "for bipolar [sufferers], the more substantially depressed the sufferer is and the longer they are depressed for, the more likely they are to be suicidal". Mrs Boyce's borderline personality disorder was in addition to her bipolar disorder. Mrs Boyce's borderline personality disorder made her more impulsive and unstable than someone who only suffered from bipolar disorder. As a general statement, people with borderline personality disorder "might suffer from frantic efforts to avoid real or imagined abandonment". Dr Spelman said things were not so straightforward with Mrs Boyce, however. She had a relatively stable relationship with her son, for example. Dr Spelman agreed that, generally speaking, another typical feature of borderline personality disorder is "a pattern of unstable and intense interpersonal relationships characterised by alternating between extremes of ideation and devaluation". This was more akin to Dr Spelman's observations of Mrs Boyce, as was her impulsivity in areas that were potentially self‑damaging. Her excessive spending was more a symptom of hypomania associated with bipolar disorder than her borderline personality disorder. She was, however, impulsive in terms of relationships including sexual relationships. Another feature of borderline personality disorder is "recurrent suicidal behaviour, gestures or threats or self‑mutilating behaviour".
12. Dr Spelman gave this evidence:

" ... before the break you told us, as I understand it, that over the years you observed Ms Boyce to make regular references to suicidal ideation?---Ideation only, not – when there – there is a reference to borderline personality disorder, they're usually – the pattern of behaviour they're talking about is frequent suicidal gestures, self-harming gestures, and that wasn't a feature that – the suicide – she did have suicidal ideation, definitely. But it was something that wasn't coming and going on a daily basis when she wasn't depressed.

All right. Were you personally aware of threats that she had made either over the years or, in particular, in the year 2015 about suicide?---Threats, as in threat implies that she's---

Threatening to jump off a building or slip off the back of a boat?---She certainly had expressed to me that she had suicidal ideation and, whenever we'd spoken about her suicidal ideation, she'd spoken about jumping off the building. At some point, I've been made aware of the fact that there was an issue around her jumping off a boat, but that was not something that was in my knowledge before she died."

1. Dr Spelman agreed that you cannot predict if anyone is going to commit suicide at any given point in time. Dr Spelman gave this evidence:

"And particularly for people who suffer from both bipolar disorder and borderline personality disorder, the instability and the impulsivity that comes with the confluence of those disorders would make it very difficult to make an accurate prediction about when or if such a person might commit suicide?---Are we talking about Maureen Boyce in particular?

No, I'm talking about people ---?---In general.

---who suffer from those two ---?---Yes.

---diagnoses?---Yes, in general. Yes.

All right. And indeed, you would be aware, wouldn't you, of cases where people are discharged from a psychiatric unit having been assessed as being well, only to go and almost immediately commit suicide?---Yes."

1. Mrs Boyce had not told Dr Spelman that her daughter had sent her a text saying that she would never meet her grandson, and that her daughter was not talking to her at the time. Dr Spelman agreed that if he had known this it would have weakened his view that the expected grandchild was a significant protective factor against suicidality for her. Dr Spelman did not take the same view about Mr Boyce's post saying "[c]rash, slut" as this had been at least a month earlier, a lot had transpired in that time, and her husband was "actively back involved in his wife's care and life". As to the fact that the prospective buyers did not wish to purchase the apartment, Dr Spelman understood the sale was very important to Mrs Boyce and said "[t]he unit'd been – to my understanding, the unit had been on and off the market for a number of years and was currently on the market at the time when I saw her on – on the 20th ... they're difficult questions to answer. It would have weakened the protective factor, but it wouldn't necessarily have made her more suicidal." He said that Mrs Boyce drank alcohol on a regular basis and, while it was not advisable to mix medications with alcohol, it was common, and he did not consider her to have a problem with alcohol.
2. Dr Spelman also gave evidence that it would be extremely rare for suicidal ideation to occur in a manic phase of bipolar disorder, and he had not seen it. Suicidal ideation normally occurs during the depressive phase of the illness. Valium and alcohol together would have both a disinhibiting and sedating effect.
3. Dr Spelman saw Mrs Boyce on 20 October 2015 at 1.30 pm. The appellant attended the hospital with her. Dr Spelman had seen the appellant in the waiting room for previous appointments. Mrs Boyce had explained the circumstances concerning the appellant to him. The appellant did not come into the room with Dr Spelman and Mrs Boyce. Dr Spelman's notes record, "[the appellant] back on the scene for two weeks. Went to New Zealand for two weeks. Didn't tell Graham. Four weeks back in Australia." Dr Spelman said:

"She informed me that her daughter was pregnant and the baby was due in February. She told me the relationship with her husband was strained. She'd informed me that she'd switched out of depression slowly while she was in Cairns. She said that she had been elevated and had been waking up very early. I made some reference to her medications, five milligrams Zyprexa, five milligrams – 10 milligrams of Effexor and 75 milligrams to 150 milligrams. My belief is that was related to her restarting her medications that she had stopped in Cairns when she had become elevated. That was reflecting a process, she had gone back onto them. And she was taking Antenex or diazepam five milligrams at night. I know that she had lunch with a girlfriend, that Sarina had visited her. She – we noted that her memory was still not good.

...

I noted that the unit had not sold, that they had the same agent, they'd run out of advertising money, they'd had no offers, and she said that, 'It looks perfect', which I – is referring to the unit.

...

We noted with Graham that he was managing okay with his health. He had a scan in one months time, and they were talking every day, and that her blood pressure was good on the new tablets, which was referring back to the problems she had in Cairns when she saw someone up there."

1. Dr Spelman also had a reasonably good recollection of the discussion they had about the appellant. He said:

"She told me that they clearly – it was clear that they were back in – they were having a – in a relationship again and he'd been back – she'd been to New Zealand to visit him and he was back here in Australia with her. She told me that they were leaving – on leaving the session that they were in with me that they were going across the road to Carindale Shopping Centre, which is directly across the road from us, and that she was organising to – for [the appellant] to get a ticket to go back to New Zealand.

...

... I don't remember the exact words, but the – what she had said was that she wanted him to return to New Zealand and that she had not discussed that with him at that point in time.

...

... The nature of it was that she was – that [the appellant] was not going – was not aware that he was going to be going back to New Zealand on his own".

1. During this appointment, Mrs Boyce was "reasonably well dressed ... she was upbeat, she was not expressing any depressive symptoms at all". Dr Spelman said, "there was nothing to suggest there was a problem with the medication, there was nothing to suggest she was depressed". They arranged another appointment in six days. Dr Spelman was apprehensive about the fact that Mrs Boyce had not yet told the appellant he would be going back to New Zealand.

Relationship between the appellant and Mrs Boyce – the appellant's police interviews

1. The appellant did not give evidence in the trial but participated in recorded interviews with the police on 22 October 2015 after the discovery of Mrs Boyce's body. Important material from those interviews is summarised below.

Early 1980s

1. The appellant is a citizen of the United States. He was in medical school in Houston, Texas, when he first met Mrs Boyce in the late 1970s or early 1980s. She was an international model, "beautiful", a "world class model". According to the appellant, she could walk into a room and "men would be all over her". The first time he saw her he was lying in a hammock, she got out of a car, and he "thought she was a movie star" as he had "never seen anybody that beautiful". They met two weeks later at the house of a mutual friend and, said the appellant, they "were in love ... so [he] thought within five minutes". They lived together for two and a half years or so. They were "crazy in love".
2. When Mrs Boyce was taken to hospital and disappeared from the appellant's life in 1981, he was "devastated by what happened" and had to drop out of medical school. All he knew was that she had "some psychiatric break", the police came and took her to hospital. She was supposed to meet the appellant at a hotel when she was discharged from the hospital, but instead she and her husband from Australia "disappeared" – "[t]hey'd gone back to Australia and that was the last". The appellant was "just ... devastated that everything had disappeared". He almost did not graduate medical school and it delayed his entry into a residency program. That was the last time the appellant saw Mrs Boyce "for all these years".

Reuniting in 2013

1. When Mrs Boyce first contacted the appellant again, four years after she returned to Australia, he "just couldn't open up that pain again" and hung up the phone. She contacted him again in 2013, by which time he was living in New Zealand, and told him that he had a son with her, and they subsequently talked for hours. They rekindled their love affair. She had kept all his letters from 30 years before or, as he said, she had kept "everything, all those years". He put his medical practice aside as they planned to buy a house, marry, and live together in New Zealand.
2. The appellant visited Mrs Boyce in Australia in September 2013. She also visited him in New Zealand in about October 2013 and during that trip they got engaged and he bought her a ring. They travelled between Australia and New Zealand to see each other at least five times subsequently, culminating in the appellant's last trip to see Mrs Boyce from 6 October 2015.
3. By October 2015, the appellant had been "waiting for this to happen for two years and [he] thought [they] were finally getting there". Two years before that he had put "everything on hold", including his medical practice, so they could get married, but Mrs Boyce's bout of depression caused her to return to Australia to be admitted to hospital. As a result, the appellant was living off his retirement savings which would not last forever, but together they "would have been fine" financially especially as the apartment in which Mrs Boyce was living was to be sold.
4. According to the appellant, Mrs Boyce was "the most beautiful [woman] I've ever met in my life, from the day I met her", and a "stunning" woman. When she walked into a restaurant "guys [who] were like thirty" "just stopped and whistled". She was the "[m]ost beautiful woman [the appellant had] ever seen". The appellant "love[d] that lady". He loved her "[w]ith all [his] heart and [he] thought [they] were finally getting close to fulfilling [their] dreams". They talked about their dreams "that went all the way back to when [they] first were with each other". Mrs Boyce had told him she loved him for all the years they were apart, and he felt the same way. He was "always looking for her again in somebody else".
5. The appellant said he did not know they had a child together until 2013 and "[w]e were, I thought we were happy and ... we were engaged". She was getting divorced, and they planned to get married in New Zealand before Christmas. He was due to fly back to New Zealand on Tuesday, 27 October 2015. He said, "I loved her, I was looking forward to, I don't even know where my future is now". He said, "I hinged everything on her, getting married in a couple of months", and they were going to sell her apartment and his house and she was going to move permanently to New Zealand to be with him. They were "really positive about the future" and "getting a house before Christmas in ... New Zealand".

21 October 2015 – suspected affairs

1. The appellant said that he and Mrs Boyce did not argue much "until yesterday, yesterday was lots of stupid arguments". The appellant said that his "heart went out to Graham [Boyce]". The appellant felt "[m]ore terrible for him" that "he had to put up with this ... [a]ll these years". The appellant said that, in fact, he asked "[Mrs Boyce] the other day, if, if we're engaged ... how can she be totally trusted if she's doing this to her husband? ... Cause she's married to him ... So, that's the damage that ... came up."
2. In his first discussion with the police, immediately after the police attended the apartment on the morning of 22 October 2015, the appellant said that Mrs Boyce had got into his phone the previous evening and was very distraught about a call from a woman who was in fact his aunt. The appellant said Mrs Boyce then took her phone and "winged it off the balcony somewhere, said she was going to bed and wanted me, for the first time this has ever happened, asked me to sleep at the other end of the house". When he later returned to this topic, saying Mrs Boyce "went berserk" over a text from his aunt, the appellant continued, "[a]nd then, she had been, ah she may have been, been having another affair on the side for all I know. I, there was some weird texting going on last night and she alluded to something, but I couldn't put two and two together, but when I asked about it, she just, you know, got very agitated." He returned to this topic again, saying, "we were engaged to get married ... we thought before Christmas, I, there might have been somebody else even, and I think she got an idea I had a clue to that".
3. In his second interview (a short time later on the morning of 22 October 2015), the appellant said that Mrs Boyce asked him about the name of a woman, who was his aunt, and implied he was having an affair with her which "made no sense at all". He then said, "[Mrs Boyce] may have been actually having another affair besides me for all I know. It had come up earlier in the day."
4. In his third interview (later again on the morning of 22 October 2015), the appellant said that Mrs Boyce had looked at his phone while he was in the bathroom and became suspicious of a text from his aunt. The appellant said to Mrs Boyce that she could look at every text and email on his phone and she should not jump to conclusions. He said to her that she would not want him looking through her phone and she then threw her phone off the balcony. The appellant also said, "[c]ause I think she had contact with somebody else yesterday. I don't know, she mentioned ... some guy named ... that I think she had an affair with before. So there might have been some guilt involved or something but it was really strange the way she reacted about the cell phone." After this, the appellant posed the question (above) as to how he could totally trust Mrs Boyce given that she was married and yet having an affair with the appellant.
5. Later again in this interview, the appellant said this:

"Earlier that day when she had those suspicions about the stuff on the computer, emails, she made some kind of a oh, I'm going to hook back up again with that Kenneth guy again or something. You know it was kind of a stabbing ...

Curve ball thing that she, I really ... but, but that was out of character but she I wondered if she wasn't, that she might have had some guilt there."

1. He repeated that, when he came out of the bathroom, she asked him about the name of a woman who was his aunt and listed off a whole bunch of other names, so she must have gone through his whole phone. The appellant said he had tried to explain to her and then said:

"I said do you have any idea how dedicated I am to you? I, I put everything on hold, that's one of the reason[s] I put my practice aside two years ago was cause we were going to do all this back then but she went into that hospital um for a couple, I think she was in the hospital couple of months ... psychiatric. So that's why it didn't happen two years ago...

Cause I've been waiting for this to happen for two years and I thought we were finally getting there."

1. When asked about "Kenneth", the appellant said:

"Yeah, apparently he had been a, a guy who um what do you call, fix it guy, handy man and they had, had affairs off and on and yesterday when she had gotten suspicious about something on my, when I was on my email, so yeah ...

...

Um when I came out of there she goes well I'm going to call Kenneth and have him ... fix up the place cause you said you know ... but it was like a little stab you know? Like ...

...

... she's been texting him I think.

...

I think there's something on still going there.

...

And I think that was part of the – , why she was getting suspicious about me is the way of putting off me thinking about her. I, I don't know, it made no sense ... yesterday because I've been so dedicated to her since the day we got back two years ago.

...

I put my whole life ... I stop my practise. We were going to get married two years ago."

1. In the same interview, the appellant said he had tried to convince Mrs Boyce many times the previous day that he had not been seeing another woman. He continued:

" ... because that was really the first time she'd ever brought that up. Even though you know, this Kenneth guy I remember she must have been still seeing him because I can remember she was in my house and texting him sitting next to me and I said what's this Kenneth thing? And then she that's when she first told me about, this was about a year or so back, and then she said that ... but they parted ways and she told him I, I was engaged with, that, that we were engaged but whether or not all that's true or not I don't know. I don't know what, how ... she was you know."

1. In his fourth interview (in the afternoon of 22 October 2015), the appellant again said that Mrs Boyce had gone through his phone, and he had said to her, "why did you go through my phone and ... why don't you just ask me instead of jumping to all these conclusions". The appellant tried to explain to her and said, "what about if I looked at your phone. Would you want me to just invade it you know". He continued:

"You know that's a violation of privacy number one and then I would, you want to jump to these conclusions and accuse you of all this stuff.

...

And earlier in the day I remember she pulled out that little thing about oh I'm going to get Kenneth over here.

...

Handy man to fix all these little things that I pointed out.

...

And that was provoked cause I was trying to contact my mother through the computer. I had to look up a bunch of stuff to find um how to reach her at this new nursing home and I asked for some privacy and she was like outraged that I wanted privacy.

...

No this was earlier in the afternoon.

...

So there was a [jealousy] factor thing starting way earlier in the day.

...

And this just mistrusting."

1. Later in this interview, the appellant said:

"So she rattled off the names and some of them were the same names that she had seen on the emails from earlier that day. So there was some [jealousy] factor that had been building up for some reason, a distrust and believe me I've, I've not gone down with another woman since we got reunited two years ago. I suspect there might have been some guilt about this thing with um this Kenneth guy that was actually fuelling it again I can't say that for sure but there was something out of the ordinary for her because she wasn't usually like that. I never seen her so hovering and wanting to know every little thing I was doing."

1. The appellant returned to "Kenneth" again saying:

"I said ... you know when I get my mum on the phone I'll bring the phone to you and you can talk to her. So she went back and was back in the walk‑in closet here yep, closet in here and that's when she brought up the Kenneth thing. It was a real stab in the back in a way, oh terrible thing to say.

...

It was, it to me it was like a--

...

A, cause it was vindictive.

...

She knew I knew about Kenneth.

...

And she told me they haven't had contact in months and then she said I just got a hold of Kenneth and he's going to come fix everything."

1. When the police suggested to him that Mrs Boyce wanted him to return to New Zealand as she no longer wanted him there, the appellant said that was because she was trying to sell the apartment and his presence was making it more difficult, as it was best to sell the place without someone living there and was "so much easier that way". The appellant then said:

"Yeah I've, I've been waiting for this to come to fruition for two years and this is shocking that--

...

This whole thing was a fraud in the first place.

...

... She had a lot of secret stuff going on cause I know there was something going on with this other guy too."

Mrs Boyce's text messages

1. Police recovered 2,677 text messages between Mrs Boyce and the appellant sent between 12 June 2013 and 7 October 2015. It is not possible to understand the nature of the relationship between the appellant and Mrs Boyce, or Mrs Boyce and her family, without considering the evidence recovered from Mrs Boyce's phone. Given the detail required to expose the relevance of the text messages, they are set out in the Schedule to these reasons for judgment.

Mrs Boyce's phone

1. The Court of Appeal summarised the forensic evidence about Mrs Boyce's phone[[98]](#footnote-99), an iPhone. Mrs Boyce's phone was found by a police officer at 7.21 am on the footpath near the gate that led from the apartment building to the marina. It was not in a working state and had a broken screen. The passcode that was required to unlock the handset was 0852, which is the middle vertical line of numbers on the keypad going from the bottom to the top of the keypad. The activity on the phone on 21 and 22 October 2015 was recovered. The phone took screenshots at various intervals when certain activities were occurring, and they were saved and stored in the handset memory and were retrieved.
2. At 11.56 pm on 21 October 2015, the handset was unlocked, and at 11.58 pm the SMS application was opened on the handset. A screenshot was taken which showed the phone contact that was opened was for "Kenneth" with a phone number. At 12.00:03 am, the SMS application was still open and at 12.03:37 am, the SMS application remained open, and a screenshot was taken at 12.03:38 am of the text message dated 18 May 2015 that was on the screen. That message from "Kenneth" to Mrs Boyce stated "I truly think we would do each other a world of good to [catch] up and spend casual time together, realising we are both okay. If we want to be ourselves. I miss you heaps x O x." After that message was viewed, the handset was returned to the home screen by pressing the home button at 12.03:54 am. The inference to be drawn is that the person who had opened the messages with "Kenneth" scrolled through them for about five minutes arriving at the message dated 18 May 2015. There was an outgoing call at 12.04:03 am to the mobile number of a "Mr East" who was in Mrs Boyce's contacts. The call lasted 12 seconds. At 12.06:02 am, the handset was in a locked state.
3. Accordingly, the appellant undoubtedly was wrong when he repeatedly said to the police that the phone went over the balcony before Mrs Boyce went to bed, at the latest, on his accounts, by 9.45 pm.
4. A person scrolling for five minutes through the texts with "Kenneth" on Mrs Boyce's phone must have seen that Mrs Boyce and Kenneth were in reasonably frequent contact and that Kenneth had visited Mrs Boyce's apartment on 26 September 2015. The messages between 18 May and 26 September 2015 included such sentiments between Mrs Boyce and Kenneth as: (a) from Kenneth, " ... I miss you heaps x O x Don't be shy. Remember how good and easy it is for us"; (b) from Kenneth, "I will wait and wait to see you. But don't torture me"; (c) from Mrs Boyce, "I send my love to you"; (d) from Mrs Boyce, "[c]an't wait to receive my prize. One day next week Mon or Tues sounds good"; and (e) from Kenneth, "I'll be the tall fellow with the short hair that can't keep his hands off you ;-) X".
5. A person scrolling for five minutes through the texts with "Kenneth" on Mrs Boyce's phone must also have seen that in their most recent texts Mrs Boyce had said she had friends from New Zealand staying and she and Kenneth must catch up after that, as well as the text on 15 October 2015 saying, "[m]y kiwi friends are still staying with me so I can't see you for another week. They won't leave. I think I will have to be rude and ask them to leave next week. I've had enough. Hope you're well. Luv ya Maureen".

The appellant's motive to kill Mrs Boyce

1. The prosecution put its case on the basis that the appellant accessed Mrs Boyce's phone between 11.56 pm on 21 October 2015 and 12.06 am on 22 October 2015, saw the messages between Mrs Boyce and Mr McAlpine, threw her phone over the balcony, and stabbed Mrs Boyce in a state of jealous rage and betrayal in the hours thereafter while she slept. As a result, the trial judge directed the jury that the alleged "lie [about the time the phone went over the balcony] is a critical fact in the Prosecution's circumstantial case against the Defendant, so before you can use that lie against the Defendant, you must be satisfied beyond reasonable doubt, not only that he lied, but also that he lied because the truth would implicate him in the offence of murder".
2. As will be explained, however, the appellant's alleged lie about the time when Mrs Boyce's phone was thrown over the balcony, and the inference that he lied to conceal his murder of her, were not indispensable to proving the appellant's guilt beyond reasonable doubt. The alleged lie was relevant only to the issue of the appellant's motive to murder Mrs Boyce in the early hours of 22 October 2015. The appellant's own statements to the police, however, proved beyond reasonable doubt that he had a strong motive to murder Mrs Boyce in the early hours of 22 October 2015 whether or not the appellant had seen the text messages between her and Mr McAlpine on her phone as far back as 18 May 2015.
3. The evidence critical to the issue of the appellant's motive is that the appellant had been "devastated" by Mrs Boyce leaving him in the early 1980s to return to Australia with her husband. The appellant was "always looking for her again in somebody else". When they rekindled their love affair more than 30 years later in 2013, he put his medical practice and "everything" on hold, they became engaged, planned to marry, and planned that she would move to New Zealand to live with him. By October 2015, he had been "waiting for this to happen for two years and [he] thought [they] were finally getting there". He "thought [they] were finally getting close to fulfilling [their] dreams". He thought "[they] were happy and ... were engaged".
4. All this is unsurprising given that the communications between Mrs Boyce and the appellant leading up to 6 October 2015 (when he arrived in Brisbane) included Mrs Boyce saying: (a) "now I love NZ and you!"; (b) "[c]ome to Brisbane darling ... It's time for us"; and (c) "[t]o the love of my life... happy birthday darling, may you have a wonderful day today and always all my love from Maureen XXXOO". The appellant also said to Mrs Boyce: (a) "I LO[V]E YOU DARLING !!!!!!!!!"; (b) "everyday I fallin [sic] love with you all over again!"; and (c) "I need you and your love; my soul in turmoil".
5. The appellant said to the police on 22 October 2015 that he and Mrs Boyce did not argue much until 21 October 2015 when they had "lots of stupid arguments". Further, it will be recalled that in his police interviews on 22 October 2015 the appellant repeatedly returned to his suspicion that Mrs Boyce had betrayed him with "Kenneth", including saying, for example, that: (a) "that's when she brought up the Kenneth thing. It was a real stab in the back in a way, oh terrible thing to say ... it was vindictive ... She knew I knew about Kenneth"; and (b) "[t]his whole thing was a fraud in the first place" and " ... she had a lot of secret stuff going on cause I know there was something going on with this other guy too".
6. Accordingly, on the evidence of his own police interviews and the messages between the appellant and Mrs Boyce, the appellant's motive to kill Mrs Boyce in the early hours of 22 October 2015 is both obvious and compelling. He was her "everloving and eternal soulmate", and just as everything was at last coming to fruition, and when he had "hinged everything on her", he became aware during the course of their arguments on 21 October 2015 that she appeared to be continuing an affair with her past lover, Kenneth, and she was even going to get Kenneth to come over and fix things around the apartment.
7. The appellant's description to the police of the events of 21 October 2015 proves beyond reasonable doubt that the appellant had a strong motive to kill Mrs Boyce that night. It is obvious that on 21 October 2015, when Mrs Boyce said she was going to get back together with her former lover, Kenneth, and get Kenneth to fix things around the apartment, the appellant came to believe that Mrs Boyce had inflicted on him a most terrible fraud – the fraud that she loved and was devoted to the appellant alone and was going to leave her husband and her life in Brisbane to marry and live with the appellant in New Zealand when, in fact, she was also in a continuing intimate relationship with Kenneth and intended to remain in that relationship.

The alleged lie about the phone – a consciousness of guilt?

Legal requirements

1. If the appellant's statements about the time the phone went over the balcony were not merely wrong but also a lie and the inference that the appellant had told the lie to conceal his murder of Mrs Boyce had been indispensable to a finding of guilt, then the trial judge correctly directed the jury that such a "consciousness of guilt" lie could not be used as evidence against the appellant unless the jury was satisfied beyond reasonable doubt that: (a) the appellant told the lie deliberately and, for example, was not merely confused about the time the phone was thrown over the balcony; (b) the lie revealed a knowledge of the offence of murder or some aspect of it; and (c) the lie was told because the appellant knew that the truth of the matter would implicate him in the commission of the offence, that is, the appellant lied because he was conscious that the truth would convict him of the offence of murder. Further, the trial judge correctly directed that the jury must remain aware that sometimes people have innocent explanations for lying, in this case, for example, the appellant (on finding Mrs Boyce dead in the morning) might have lied to conceal that he had breached her privacy by accessing her phone. These directions accurately reflect the requirements established in *Edwards v The Queen*[[99]](#footnote-100). No complaint is made about the directions given.

The evidence on the phone

1. As noted, Mrs Boyce's phone had a passcode, 0852, which is comprised of the middle line of numbers on the number pad from bottom to top. The phone had a home button which would take the user back to the home screen. The phone would lock after non‑use for one minute. The phone had not been used for some hours before 11.56 pm when the phone was unlocked. Unlocking the phone required using the passcode.
2. Mrs Boyce's husband gave evidence he did not know her phone passcode saying, "[n]o, I never asked her". There was also evidence from Mrs Boyce's son, Zachary, that his mother had only limited ability to use her phone and would "often get [him] to do things for her on her iPhone". Her son's evidence indicates that, despite her relationships with the appellant and Mr McAlpine, Mrs Boyce was not strongly motivated to ensure no one accessed her phone. The fact that the passcode was comprised of the middle line of numbers on the number pad from bottom to top also meant that it would have been easy for a person interested in accessing Mrs Boyce's phone to observe and recall her enter those numbers. Further, as Mrs Boyce's phone was her "lifeline", the appellant would have had ample opportunity to observe her enter the passcode during their visits to each other including his visit to her from 6 October 2015.
3. The other evidence about the phone included that: (a) the appellant repeatedly said Mrs Boyce went to bed between about 9 pm and 9.45 pm and had thrown her phone over the balcony before she went to bed; (b) Mrs Boyce had asked the appellant to return to New Zealand without her and he had bought a ticket to do so on 20 October 2015, albeit that she told him that this was so she could more easily market and sell the apartment; (c) the appellant had become very suspicious on the evening of 21 October 2015 that Mrs Boyce was having a relationship with a past lover, Kenneth; (d) the phone was her "lifeline" making it extremely unlikely she would have thrown it over the balcony; (e) the appellant's suspicions about Kenneth and the "weird texting" Mrs Boyce had been doing on the night of her death meant that the appellant had a strong motive to access her phone without her knowledge and if, as he said, she had gone to bed before him and by no later than 9.45 pm, he had opportunity to do so; and (f) if the appellant did access her phone, he would have seen evidence that would not only have confirmed that Mrs Boyce did have a continuing relationship with Kenneth, involving (at the least) significant affection for each other, but also that he, the appellant, was represented to Kenneth to be "kiwi friends ... still staying with me so I can't see you for another week. They won't leave. I think I will have to be rude and ask them to leave next week. I've had enough."
4. The lack of evidence of the appellant's fingerprints on the home button and where the passcode numbers were located on the phone must be considered in this full evidentiary context, and not in isolation or "piecemeal"[[100]](#footnote-101). Other evidence is also relevant to the fact that the appellant's fingerprint was not found on the home button or location of the passcode on the phone.
5. Jonathan Daly, a Sergeant in the Queensland Police Service, gave evidence. Sergeant Daly is a fingerprint expert at the Queensland Fingerprint Bureau. Sergeant Daly inspected Mrs Boyce's phone. A latent print was located on the phone which he matched to the appellant's fingerprint. The fingerprint located was the tip or top only of the right middle finger, and the fingerprint was not on the home button or where the passcode numbers were located. Sergeant Daly also said: (a) a fingerprint is really matter that has been left by a fingertip; and (b) fingerprints can be wiped off by use. Sergeant Daly also examined the wine bottle and two wine glasses located on the coffee table in the living/dining area of the apartment. Using white powder as an enhancement tool, he located latent prints on both wine glasses and the prints were identified as belonging to the appellant. He was, however, "unable to make an identification of the latent print off the wine bottle".
6. It must be inferred from this evidence that not every touch of an object leaves a fingerprint capable of identification. This is so because the wine bottle must have been touched to pour the wine into the two glasses and Sergeant Daly could not identify the fingerprint on the wine bottle. Similarly, there was evidence that no fingerprints were located on the handle of the knife, yet either Mrs Boyce or the appellant must have plunged the knife into her abdomen. From this it follows that the lack of any other fingerprint of the appellant on the phone is of no particular significance.
7. Further, when considered as a whole, the evidence disproves beyond any reasonable doubt that the appellant was merely wrong or confused about the time that Mrs Boyce threw the phone over the balcony or that, when he found her dead in the morning, he merely panicked that he may be wrongly blamed for her death and therefore made the time she threw the phone over the balcony hours earlier than it could have occurred. Even if, as the appellant said, Mrs Boyce threw her own phone over the balcony, she must have done so after 12.06 am. And if, as the appellant said, he kissed Mrs Boyce goodnight sometime between 9 pm and 9.45 pm, then went to bed himself at around 11 pm, and did not get up until just before 5.30 am, the time at which the phone went over the balcony was irrelevant. The time at which the phone went over the balcony is only relevant if it is somehow linked to the time of Mrs Boyce's death. On the appellant's statements, as far as he could have known, her death could have occurred at any time after 9 pm (or 9.45 pm at the latest) and before 5.30 am.
8. This also explains why it was essential from the appellant's perspective not only that Mrs Boyce (not he) threw the phone over the balcony but also that there not be evidence of a heated argument between them relatively close to the time of Mrs Boyce's death. This, in turn, further explains why it was important that, according to the appellant, Mrs Boyce and he did not each go to bed in a rage with each other. Rather, according to the appellant, after she threw her phone over the balcony, she suddenly became "lovey dovey" and wanted to be sexually intimate with him but then she became too tired and went to bed (albeit, according to him, also wanting him to sleep separately from her for the first time ever).
9. Accordingly, it is the very fact that the lie relates to the time the phone was thrown over the balcony that exposes the appellant's consciousness of guilt. The appellant's statement about the time the phone went over the balcony makes sense only if he in fact knew the time of the commission of the offence. Neither confusion nor panic can explain the repeated statements about the time the phone went over the balcony. The statements were not merely wrong, they were a deliberate lie to conceal the appellant's knowledge of the time of Mrs Boyce's death – knowledge he could have had only if he killed her. Of course, if it was also the appellant and not Mrs Boyce who threw the phone over the balcony after 12.06 am, that is irreconcilable with all of the appellant's statements to police that she went to bed between 9 pm and 9.45 pm and he went to bed by 11 pm without seeing her again after he kissed her goodnight.

A lack or a mere absence of forensic evidence?

Preliminary observations

1. Apart from Mrs Boyce's mental state and suicide risk, the focus of the submissions for the appellant, both below and in this Court, was the lack of forensic evidence of a struggle between the appellant and Mrs Boyce, the positive forensic evidence that Mrs Boyce moved only minimally after she had been stabbed, and the lack of forensic evidence (fingerprints, DNA, blood) associating the appellant with Mrs Boyce's stabbing. As submitted for the appellant in respect of the lack of forensic evidence, for example: (a) there was no forensic evidence linking the appellant to the act which caused Mrs Boyce's death; (b) Mrs Boyce's DNA was found on the knife, but the appellant's DNA was not, and there was no evidence of a glove "that might have caused a lack of transfer of DNA"; (c) the appellant's DNA was not found under Mrs Boyce's fingernails; and (d) there was no blood found on the appellant's body or clothing, and no evidence of blood in the sinks, taps or drains in the apartment.
2. It is a given that the onus of proof remained on the prosecution from beginning to end and, in this case, that onus meant that the prosecution had to exclude beyond reasonable doubt the possibility that Mrs Boyce died by suicide. That said, and as explained above in the context of Mrs Boyce's phone, it is impermissible to consider any part of the evidence (including a lack of evidence) in isolation from the whole of the evidence[[101]](#footnote-102).

DNA

1. Adriano Pippia, who holds a Bachelor of Applied Science and works in Queensland Health's DNA analysis laboratory, gave evidence. Mr Pippia explained that DNA is the genetic information that is within most cells of the human body. It is possible to compare DNA profiles from the scene of a crime to known samples of DNA. If the two match, the known person could have contributed to the DNA profiles at the scene. If they do not match, the person is excluded as a contributor to the DNA profiles from the scene. The strength of the evidence must be statistically calculated, as the DNA of every person in the world is not available, so the statistical probability of the known person being a contributor to the DNA profiles from the scene is derived from the statistical calculations.
2. DNA is contained in the nucleus of cells, apart from red blood cells. It can be obtained from saliva, blood, semen, the sheath around the hair root, and from skin. DNA can be left on an object by direct touch (a primary transfer) or by secondary or multiple transfers (eg, from the object touched to another object or person). Secondary or multiple transfers involve a potential for much more variability than primary transfers.
3. It is a necessary inference from the evidence in this case that not every touch or contact will involve the transfer of DNA. This is a necessary inference because, for example, it is known that Zachary Boyce, Mrs Boyce, and the appellant were all regularly in the apartment before 22 October 2015, and that Mrs Boyce, Mr Walsh (the real estate agent), and the appellant were in the apartment on 21 October 2015. The only DNA retrieved from the carpet sample, however, was that of Mrs Boyce. Similarly, while Mrs Boyce and the appellant had lived together in the apartment since 6 October 2015, his DNA was found only on Mrs Boyce's breasts.
4. In these circumstances, the lack of the appellant's DNA, for example, on the handle of the knife or elsewhere on Mrs Boyce, is a mere absence of evidence, and is but one fact which is required to be considered in the context of the whole of the evidence.

Blood

1. The same reasoning applies to the absence of evidence of blood in various drains, on taps, in basins, and on sinks. While there were some positive results, possibly for blood, from the tap handle in an ensuite bathroom, that result could equally have been for several other substances. The relevant point is that this is a mere absence of evidence which again must be considered in the context of the whole of the evidence. To reason otherwise is impermissible and would involve several suppressed assumptions, including that: (a) if the appellant stabbed Mrs Boyce he or at least his hands would have a lot of blood on them; and (b) if the appellant washed blood from his hands or body there would remain traces of it in the sinks or drains that could be identified.

No struggle

1. What of the lack of forensic evidence of any struggle? Mrs Boyce still had therapeutic levels of diazepam (which she used to induce sleep) in her body at the time of death, as well as alcohol, and anti‑depressant and anti‑anxiety drugs. While the evidence was that these levels were low and would not have immobilised Mrs Boyce or prevented her from trying to defend herself, there was also evidence both that these drugs may interact in the body and that the effect of these drugs is specific to the individual, and that Mrs Boyce was described (including by the appellant) as "tipsy" and "pretty groggy" before she went to bed. This evidence supports an inference that, assuming she was not awake and stabbing herself in the abdomen between 1.45 am and 3.45 am on 22 October 2015, Mrs Boyce would have been asleep (and, given the time, possibly deeply asleep). There was also evidence that the entire stabbing episode could have been completed within five seconds. In the circumstances, the evidence did not indicate that a struggle with the appellant should have been expected to occur. Alone, in bed, asleep (possibly heavily asleep on the evidence), under a sheet, in the dark, and with sedating drugs and alcohol in her system, Mrs Boyce would have had little time to do anything before the stabbing was complete.

Mrs Boyce's minimal movement after being stabbed

1. The more important evidence is that after the stabbing Mrs Boyce did not move or, at least, move sufficiently to cause her blood to be deposited other than primarily around the wound and below her body on the bed. While Dr Ong's evidence referred to a possibility that Mrs Boyce might have remained conscious for 15 minutes after she was stabbed, his evidence in its whole context must be considered. It was put to Dr Ong that it might have taken an hour for Mrs Boyce to lose consciousness. Dr Ong responded that "it's quite difficult to estimate how someone can stand – withstand blood loss, but because [the inferior vena cava] is a major vessel, I would say that probably inside the first – there'd be serious consequences in the first – after about 15 minutes". He then agreed that "it is likely that the deceased would have become significantly impacted, weakened, and lose consciousness within 15 minutes of the stab". He also then agreed with the proposition that "[i]t might have happened a little bit quicker than that, might it? It might've only taken, say, five minutes?" He said that "I don't think that one can be sure". What he was sure of, however, is that for unconsciousness "we're talking about a number of minutes for that to occur, not a number of seconds".
2. In addition to the difficulty of estimating a person's ability to remain conscious while suffering profuse blood loss (from losing consciousness in five minutes to an extreme of 15 minutes), there was also Dr Ong's evidence of the difficulty of estimating the effect of the drugs and alcohol in Mrs Boyce's system. Dr Ong was clear these were not at levels that would have prevented Mrs Boyce from fighting back. This, however, assumes she had the time to do so – that is, alone, in bed, asleep (possibly heavily asleep), under a sheet, in the dark, with sedating drugs and alcohol in her system, when stabbed by multiple thrusts in the abdomen going right through her body which would have taken no more than five seconds, Mrs Boyce should have woken up, oriented herself to work out she was being attacked, and defended herself in some way. The greater likelihood is that the attack would have been over before Mrs Boyce could have done anything about it.
3. The question is, having been attacked, and being conscious for at least a number of minutes (not seconds), why did Mrs Boyce not move, for example, by trying to get to the phone on the bedside table? Dr Ong agreed that a "stab to the abdomen by a large kitchen knife would induce the fight or flight response". Despite this, the evidence of the blood indicates Mrs Boyce moved only minimally after the stabbing. It may be accepted that this evidence, if considered in isolation, would weigh against an inference that Mrs Boyce was murdered. It is impermissible, however, to pluck this evidence out from the evidence as a whole and weigh its significance in isolation. Its significance may only be assessed in the context of the whole of the evidence.
4. There is, for example, photographic evidence of how Mrs Boyce's body was found. Her body is not wholly on the bed. She is on her back, her right hand under a pillow at the top of the bed, her left hand towards the abdominal wounds with fingertips touching the knife, and the lower part of her body rotated towards the right, so that her right leg (partly underneath her left leg), from the knee downwards, is out from beneath the covers with her right foot hanging over the right‑hand side of the bed. There is a doubled over pillow with a corner wedged against the abdomen heavily stained with blood. There is evidence that the appellant weighed about 100 kg and Mrs Boyce about 74 kg. While Dr Ong gave evidence that, "to a certain extent", a 74 kg woman could ward off a 100 kg man trying to stab her, that evidence was given in a contextual vacuum without any suggestion that the 74 kg woman was alone, in bed, asleep (possibly heavily asleep), under a sheet, in the dark, with sedating drugs and alcohol in her system, and was stabbed in five seconds or less, and may have lost consciousness within minutes (albeit not seconds). There is also no doubt that the appellant was in the apartment at the time of and after the stabbing.
5. There is another matter which also must be considered in this context. While it was not put to Dr Ong, it is a matter that the appellant's counsel recognised and submitted to the jury involved a matter of ordinary human experience. In response to the prosecution's closing address which mentioned a possibility that, after the stabbing, Mrs Boyce may have been "paralysed with fear", the appellant's counsel said this:

"Now that wasn't evidence given by Dr Ong. You will recall there was some back and forward from me to him and vice versa, about the fight or flight response. And nowhere in any of that discussion did Dr Ong talk about a freeze response in the context of an immediately life‑threatening injury.

Now paralysed with fear, one might think, using your ordinary understanding of human behaviour, to be a reasonable response. A known response to something like a sexual assault. But perhaps in the context of a sexual assault, you will have heard discussion about a freeze response, effectively paralysis with fear. And you might understand that that would make sense if you're subjected to a sexual assault ... But it is not at all a reasonable ... response to an immediately life‑threatening injury. One does not get stabbed and think the way to get through this is to freeze until it's over, because one is dead.

So one must respond".

1. This submission correctly recognises that the freeze response is just as much a part of ordinary human experience as the fight or flight response. In saying that "[o]ne does not get stabbed and think the way to get through this is to freeze until it's over", however, the submission overlooks Dr Ong's evidence that the fight or flight response, being the only responses put to him, are physiological responses that are "not something that [a person] decide[s] to engage in". The "freeze" response can only be of the same nature.
2. Accordingly, it may be accepted that the prosecution did not prove beyond reasonable doubt that the appellant held Mrs Boyce down after the stabbing and that the evidence indicates that she did not move other than minimally on the bed after being stabbed, but all of the other evidence also has to be considered in deciding the weight to be given to Mrs Boyce's minimal movement after the stabbing including: (a) her position on the bed twisted to the right side with one leg out, which may suggest an attempt at moving off the bed; (b) the appellant's undoubted presence in the apartment both when she was stabbed and thereafter; and (c) the bloodied pillow which remained pushed up against her wound.

Was the possibility of suicide excluded beyond reasonable doubt?

Method of death

1. Dr Ong's evidence was that people have chosen to kill themselves in "highly unusual" ways. Mrs Boyce, however, was not any person. She was a 68‑year‑old woman with arthritis in both hands severe enough to mean that she often could not open jars and would frequently drop things. In these circumstances, if Mrs Boyce decided to end her life by stabbing herself in the abdomen, she could not be sure she would be able to maintain a grip on the knife. She could not be sure that stabbing herself in the abdomen would do more than wound herself non‑fatally before she was found. She could not be sure that, if she merely wounded herself, she might not suffer ongoing adverse physical consequences. Stabbing herself in the abdomen would be expected to involve a vicious and painful wound in circumstances where she could have no idea if she could inflict a fatal blow and, if she managed to do so, no idea how long she would have to lie in pain waiting to die. There are no hesitation wounds suggestive of any exploratory attempt testing her willingness to proceed to stab herself. If she had decided to kill herself, she also had diazepam and other drugs available which she might have believed would give her a relatively painless death. She also lived on the 20th floor of a building with balconies and whenever she had expressed suicidal ideation in the past when depressed, she usually referred to "jumping off" the balcony. While she was physically capable of stabbing herself in the abdomen, the inescapable inference in the circumstances is that stabbing herself in the abdomen is a highly unlikely method for her to have chosen to end her life.

Mrs Boyce's mental state

1. It must be inferred that Mrs Boyce lived with her bipolar disorder and borderline personality disorder for much of her adult life, albeit her bipolar disorder symptoms were phasic and, according to her husband, her depressive symptoms apparently manifested more obviously after the death of her mother 20 years before Mrs Boyce's own death.
2. Mrs Boyce suffered frequent bouts of severe depression which never wholly responded to medication. When depressed, her mood and energy would be low, and she frequently expressed suicidal ideation. Her usual expression of suicidal thoughts was that she would jump off the balcony. According to Dr Spelman, her treating psychiatrist for over ten years, she only expressed suicidal ideation when depressed. Dr Spelman explained that there is a difference between suicidal ideation (thoughts of ending one's life), suicidal planning, suicidal intent, and suicidal action. He was unaware of Mrs Boyce ever moving past suicidal ideation. He agreed, however, that the incident he became aware of after her death, of Mrs Boyce attempting to "climb over her balcony rail whilst her son was ... at the unit with her", was a "significant step up from suicidal ideation".
3. Care is needed in respect of Dr Spelman's understanding of the balcony incident which occurred in 2009. Mrs Boyce did not in fact attempt to climb over the balcony railing. Rather, when Mr Boyce called Zachary (who was living in the same apartment at the time) to check on her, Mrs Boyce was merely peering over the balcony. When Mrs Boyce saw her son, she then went to lift her leg, her son yelled at her, including that she not be "silly", and Mrs Boyce instantly came inside and, as noted, said "[d]on't worry, darling. I would never go ahead with it. I just didn't like the way I was feeling. I wouldn't want to leave your sister and I [sic]." This evidence, and Mrs Boyce's frequent expressions of suicidal ideation, must also be put in the broader evidentiary context. Mrs Boyce was "flamboyant" and "often prone to melodramatic gestures". As noted, once, when her husband called the police because she had been so adamant that she was "really going to do it", the police and ambulance officers found her happily having supper and watching TV, after which she called and berated her husband for wasting the officers' time. Further, Mrs Boyce had never in fact attempted suicide. Indeed, she had never attempted any form of self‑harm.
4. Care is also needed in respect of Dr Spelman's agreement that if he had known that Mrs Boyce's daughter had told Mrs Boyce she would never see her grandson, that would have weakened his view that the expected grandchild was a significant protective factor against suicidality for Mrs Boyce. Dr Spelman's response was not given with knowledge of all the circumstances. Mrs Boyce and her daughter had a "colourful relationship". They frequently fell out with each other and did not speak. When her daughter sent the text saying that Mrs Boyce would "never ever meet [her] only grandson!!!!!" and her daughter also told her to "[s]tay away from Dad, Andrew, Me and my baby boy", Mrs Boyce was far from devastated or ashamed. Rather, Mrs Boyce sent a text to her husband saying, "[w]hat have you been saying to Angelique? She sent me the nastiest text message." Mrs Boyce also sent a text message to her daughter saying her daughter had been "disrespectful and horrible" to her, that her daughter should remember that she gave birth to her and was her mother, ending with this admonition to her daughter, "[w]hen you apologise to me I may talk to you again".
5. Moreover, Mrs Boyce did not stay away from her husband or even her daughter's husband. To the contrary, Mrs Boyce remained in regular contact with her husband and her daughter's husband. And, as her daughter said, she and her mother would always "make up, eventually". Mrs Boyce had also bought presents for her unborn grandson, consistent with her earlier enthusiasm when she texted her daughter about what school her unborn grandson should attend.
6. Against this evidence, the idea that Mrs Boyce believed for a moment she would not be involved with her grandson (or her daughter) in the future is fanciful. The only available inference is that Mrs Boyce did not bother to mention her falling out with her daughter to Dr Spelman because it was routine for them and of no real significance.
7. The same considerations apply to the suggestion that Mrs Boyce was so distressed by the fact the apartment had not sold that this caused or contributed to her deciding to end her life. On the whole of the evidence, this notion is preposterous. As her real estate agent, Mr Walsh, said, Mrs Boyce was undoubtedly disappointed when told the prospective buyers thought the apartment was too large, as any person would be in the same circumstances. But Mr Walsh also told her that there were ways to get the apartment sold (including getting the bank valuation and giving it to the prospective buyers to entice them back). Mrs Boyce also told her friend, Ms Russo, that while she was stressed by the sale process, she was willing to drop the sale price by $500,000, and mentioned to Ms Russo the plan to give the prospective buyers the bank valuation. Further, Mrs Boyce also had the idea of giving the sale to another agent and told her husband that this other agent had people "lined up" to buy the apartment and would have it sold within a week or two. In this conversation with her husband on the evening of 21 October 2015, Mrs Boyce was also adamant that her husband find the valuation and send it to her "ASAP the next morning". She also spoke to her son later at about 9.25 pm when she sounded "in high spirits" and said to her son that she had had a lovely meal at a restaurant and "we must go there sometime", to which he said, "yes, that sounds great".
8. This is all irreconcilable with any inference that the fact the prospective buyers did not make an offer and said the apartment was too large for them was anything more than a disappointment to Mrs Boyce which she characteristically determined to overcome with vigour.
9. Other evidence also needs to be considered in context. Mrs Boyce's text to her husband at 5.28 am on 19 October 2015 that "I feel all depressed again. Up at 3 am today" formed part of a series of attempted contacts with him in a short period of time (very early in the morning over two days) culminating in two texts saying, "[c]an u call me ASAP". Mrs Boyce, it may readily be inferred, often resorted to various forms of emotional manipulation to get what she wanted which, at that time, was contact from her husband. Even if the text accurately reflected her feeling "all depressed" again at that time, it did not last. Within two days, she informed her friend Ms Russo that the advertisement she, Mrs Boyce, wrote to sell the apartment was so good Mr Walsh had offered her a job in real estate. She also had the pleasure of knowing her texts to her husband succeeded (as they always did), as he made several attempts to contact her on 21 October from 9.06 am onwards. Further, by 20 October 2015, Mrs Boyce knew that she had succeeded in getting the appellant to purchase a ticket to return to New Zealand without her, on the basis that she had to sell the apartment and it would be easier to do that without him being there. To add to this, her conversation with her husband on the evening of 21 October 2015 about finding the valuation and sending it to her "ASAP the next morning" is irreconcilable with an inference that she had entered a depressive phase characterised by low mood, low energy, and an unwillingness or inability to engage in activities. The overwhelming weight of the evidence is that, at that time, Mrs Boyce was, if anything, in a somewhat elevated, hypomanic, phase.
10. The same contextual considerations must be applied to Mrs Boyce's call, out of the blue, to Ms Neilson on 20 October 2015 telling Ms Neilson she was "just very, very – very, very depressed" and had "tried to commit suicide", that they had financial problems, and her husband had health issues. Much of this was demonstrably untrue. Mrs Boyce had not tried to commit suicide. Mr and Mrs Boyce's "financial problems" were the kind many people would wish for – on the evidence they had a short‑term cashflow issue but were selling a four‑bedroom apartment worth over $3 million in Brisbane and owned (according to Mr Boyce) property in Cairns, on the Gold Coast, and in France which they were retaining. Further, they were selling the Brisbane apartment so they could downsize to a new apartment in Brisbane and Mr Boyce could stop working. Mrs Boyce also saw Dr Spelman on the same day that she called Ms Neilson. During that consultation, Mrs Boyce told Dr Spelman that her depressive phase had ended in Cairns (that is, in July/August 2015). Dr Spelman said Mrs Boyce reported that she had been "elevated"; they spoke about the appellant; she was "upbeat" and "not expressing any depressive symptoms at all"; and "there was nothing to suggest she was depressed".
11. The fact that Mrs Boyce managed to present a happy front at her daughter's wedding when she was in fact still very depressed at that time (the wedding was in May 2015 and Mrs Boyce's depression did not ease until July 2015) also requires contextual consideration. Mrs Boyce was so determined to be (or appear) happy at her daughter's wedding that she sought and was given additional ECT. Her daughter's wedding was obviously an exceptional event. Otherwise, when depressed, Mrs Boyce either could not or did not mask her low mood. When depressed, she would be transformed from her "normal" self (highly sociable, energised, and well‑groomed) into someone who had no energy, who would not leave the house, and who would not care for her appearance. This was the consistent evidence of her husband, her son, and Dr Spelman. As noted, her husband, who knew her best, described her emergence from a depressive phase in Cairns in July 2015 as "lo and behold, Maureen had been to the hairdresser; she'd been to the nail lady. She'd been and got her legs waxed, and found some new clothes, and was putting on her makeup". Given this evidence, it cannot be inferred that on 20 October 2015 when she saw Dr Spelman, he was entirely fooled by her and, in fact, Mrs Boyce was depressed (let alone seriously depressed).
12. The only evidence of potentially material weight from which it might be inferred that Mrs Boyce was at any risk of suicide on 22 October 2015 was that she had bipolar disorder and borderline personality disorder and had frequently expressed suicidal ideation when depressed. Dr Spelman agreed that people with bipolar disorder are at a greater suicide risk than those without the disorder. He also agreed that having both bipolar disorder and borderline personality disorder, which are characterised by impulsivity and instability, "would make it very difficult to make an accurate prediction about when or if such a person might commit suicide". Dr Spelman was careful, however, to frame this evidence by reference to "people" generally and not to Mrs Boyce in particular. Accordingly, Dr Spelman's evidence that people with bipolar disorder are at a greater risk of suicide than those without the disorder is to be understood as a population‑based statistical fact. In speaking about the difficulty of predicting suicide risk in a person with bipolar disorder and borderline personality disorder, characterised by impulsivity and instability, Dr Spelman expressly asked "[a]re we talking about Maureen Boyce in particular?", and was told no, the focus was people in general. His evidence was given in that limited context. Mrs Boyce was not a mere statistic or archetype for a person with bipolar disorder and borderline personality disorder. She was a person about whom there was a wealth of other evidence that must be considered.
13. This other evidence includes that: (a) Dr Spelman said that Mrs Boyce's impulsivity and poor judgment manifested in her sexual relationships and financial decisions; (b) by contrast, Mrs Boyce had never exhibited the kind of impulsivity that resulted in self‑harming behaviours of any kind; (c) Mrs Boyce had never moved beyond the expression of suicidal ideation and on the single occasion that she took any action it was wholly responsive to her son coming to check on her at her husband's request, an event which had a distinctly performative character; (d) Mrs Boyce had told Dr Spelman as recently as 20 October 2015 that she was feeling "elevated", which was a mood exclusively associated with the manic phase of her bipolar disorder, and Dr Spelman considered it would be "extremely rare" for suicidal ideation to occur in a manic phase of bipolar disorder, he had never seen it at all, and he had certainly never seen it in Mrs Boyce; and (e) despite his long period of treating Mrs Boyce, Dr Spelman saw no sign at all of her being depressed on 20 October 2015. Dr Spelman's only concern about Mrs Boyce on 20 October 2015 was that she was arranging for the appellant to be removed from her life and the appellant did not yet know it.
14. To this evidence must be added the facts that: (a) despite the drama in her relationship with her daughter, Mrs Boyce had a continuing loving relationship with both her children, to the extent that her adult son lived in the same building as and frequently socialised with her; (b) despite the drama in her relationship with her husband, Mr and Mrs Boyce looked after each other when they were ill and he had been, and remained, a constant in her life, giving her ongoing financial and emotional support; (c) Mrs Boyce had been the one who looked after her husband when he had to be in Brisbane for treatment, and although she was stressed by her husband's illness, the sale of the apartment was intended to enable her husband to stop working; (d) Mrs Boyce had developed a close and supportive relationship with her daughter's husband and, from the evidence, must be inferred to have been delighted that she would become a grandmother in some months; and (e) the last time her husband spoke to her, only hours before her death, Mrs Boyce manifested no sign of depression and, to the contrary, was reassuring her husband the apartment would sell and, in effect, demanding that he get the valuation to her the following morning.
15. Further, the evidence is clear that Mrs Boyce wanted the appellant out of her apartment and, by 21 October 2015, had no intention of joining the appellant in New Zealand or divorcing her husband and marrying the appellant. She had succeeded in her intention to get the appellant to buy a plane ticket back to New Zealand without her on the basis that she had to sell the apartment which also must have been a great relief to her.
16. This evidence excludes beyond reasonable doubt any possibility that Mrs Boyce committed suicide in the early hours 22 October 2015. It does so, moreover, without consideration of the impugned evidence of Dr Ong.

Ground one – conclusion

1. The evidence proves beyond reasonable doubt that Mrs Boyce did not die by suicide in the early hours of 22 October 2015. Accordingly, in the circumstances of the case, it also proves beyond reasonable doubt that the appellant murdered Mrs Boyce. The jury's verdict to that effect is not unreasonable. Ground one must be dismissed.

Ground two – the inadmissibility of expert evidence ground

1. In ground two, the appellant contended that the Court of Appeal erred in finding that Dr Ong's opinion evidence, that the deceased's wounds were more likely inflicted by another person than self‑inflicted by the deceased, was admissible. While framed as a question of a miscarriage of justice before the Court of Appeal, in this Court the appellant identified the admission of this opinion of Dr Ong, over the appellant's objection, as involving a "wrong decision [on a] question of law" as referred to in s 668E(1) of the *Criminal Code*. According to the appellant, this opinion of Dr Ong was inadmissible because it was not based on Dr Ong's expert knowledge as a forensic pathologist.
2. The appellant was on notice that Dr Ong would give evidence to the effect that the deceased's wounds were more likely inflicted by another person than self‑inflicted. Accordingly, before the trial started, the appellant filed an application under s 590AA of the *Criminal Code* which enables a party to apply for a direction or ruling as to the conduct of the trial in advance, including with respect to the admissibility of evidence[[102]](#footnote-103). Section 590AA(3) provides that "[a] direction or ruling is binding unless the judge presiding at the trial or pre‑trial hearing, for special reason, gives leave to reopen the direction or ruling", whereas s 590AA(4) provides that "[a] direction or ruling must not be subject to interlocutory appeal but may be raised as a ground of appeal against conviction or sentence". Dr Ong gave evidence in a pre‑trial hearing as part of this statutory process to determine the admissibility of the impugned evidence.
3. Before the trial judge, the Court of Appeal, and this Court, the appellant accepted that the question whether wounds are self‑inflicted or not is capable of being the subject of expert evidence, if the evidence is based on the witness's training, study, or experience[[103]](#footnote-104). There was no question that Dr Ong was an expert in a recognised field of expertise, forensic pathology, by reason of which he could provide the jury with an expert opinion (if based on that expertise), which the jury could not itself reach unassisted, about the more likely cause of the deceased's fatal stabbing wounds being infliction by another person rather than by the deceased herself[[104]](#footnote-105). The appellant submitted, however, that the evidence exposed that the impugned evidence of Dr Ong was inadmissible under the applicable common law principles, as he was giving his opinion as to the likelihood of the deceased acting in a particular way, which was not an opinion based on his expertise as a forensic pathologist.
4. As a result of the pre‑trial hearing, the trial judge held that "Dr Ong has laid a sufficient foundation for the evidence he has given based on his training, study and experience", with the consequence that the application to exclude his evidence, that the deceased's wounds were more likely inflicted by another person than self‑inflicted by the deceased, was refused[[105]](#footnote-106). Accordingly, Dr Ong was able to, and did, give this evidence during the trial. The Court of Appeal dismissed the appeal on the ground of inadmissibility of this part of Dr Ong's evidence on the basis that it was "not a fair reading of Dr Ong's evidence at trial to submit that the impugned answer was the expression of a personal opinion not based on his medical expertise in respect of stab wounds"[[106]](#footnote-107).
5. It is the admissibility of Dr Ong's evidence, as permitted to be and as in fact given at the trial itself, which is impugned in this appeal. It is this evidence, and not Dr Ong's evidence at the pre‑trial hearing, which was before the jury. This evidence, as given at the trial, either was or was not admissible. This is not a case in which it is suggested that Dr Ong's evidence during the trial was insufficient to establish his expertise because of a wrong assumption that his evidence during the pre‑trial hearing was before the jury[[107]](#footnote-108). Rather, the appellant's case, as put to the Court of Appeal and to this Court, is that the whole of Dr Ong's relevant evidence, including at the pre‑trial hearing, exposes that the impugned evidence given at the trial was not based on his expertise.
6. The appellant's argument is not impermissible merely because it relied, in part, on Dr Ong's evidence during the pre‑trial hearing. The appellant is entitled to rely on the evidence Dr Ong gave at the pre‑trial hearing to support the case that the impugned evidence Dr Ong gave at the trial was inadmissible. For example, in determining the admissibility of evidence given in a trial, it would also be permissible to consider evidence given during a pre‑trial hearing relevant to an asserted lack of expertise or, as in the present case, an asserted lack of expert foundation for an opinion as to the relative likelihood that fatal wounds were inflicted by another person as opposed to self‑inflicted. The converse approach (that is, for the respondent to rely on the evidence Dr Ong gave at the pre‑trial hearing to support the proposition that the impugned evidence Dr Ong gave at the trial was admissible) would not be true in the circumstances of this case, as the jury had to decide the weight to be given to Dr Ong's evidence, including his impugned evidence, based only on the evidence of which the jury was seized.
7. Further, the statutory pre‑trial process is not a common law voir dire. The applicable procedures are governed by the terms of s 590AA alone. By s 590AA(3), the judge at the trial may, "for special reason", give leave to reopen the direction or ruling. A special reason would include, for example, further evidence being given exposing that the direction or ruling was mistaken. Leave to reopen may be given by the trial judge on their own motion or in response to an application seeking leave to do so. If an objection has been taken to evidence and, at a pre‑trial hearing, a ruling was made that the evidence is admissible, the ruling is binding unless leave to reopen is given. By s 590AA(4), a ruling can be raised as part of an appeal against conviction or sentence.
8. For the following reasons, the Court of Appeal did not err in holding that the impugned evidence of Dr Ong, as given at the trial, was admissible.

The admissibility of expert evidence at common law

1. In *Clark v Ryan*, Dixon CJ quoted the notes to *Carter v Boehm* in *Smith's Leading Cases*[[108]](#footnote-109) to the effect that "the opinion of witnesses possessing peculiar skill is admissible whenever the subject‑matter of inquiry is such that inexperienced persons are unlikely to prove capable of forming a correct judgment upon it without such assistance, in other words, when it so far partakes of the nature of a science as to require a course of previous habit, or study, in order to the attainment of a knowledge of it"[[109]](#footnote-110).
2. In *R v Bonython*[[110]](#footnote-111), King CJ identified that the admissibility of expert evidence at common law involves asking, first, if the "subject matter of the opinion falls within the class of subjects upon which expert testimony is permissible"[[111]](#footnote-112). This first question depends on "(a) 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, and (b) whether the subject matter of the opinion forms part of a body of knowledge or experience which is sufficiently organized or recognized to be accepted as a reliable body of knowledge or experience, a special acquaintance with which by the witness would render [their] opinion of assistance to the court"[[112]](#footnote-113). The second question is "whether the witness has acquired by study or experience sufficient knowledge of the subject to render [their] opinion of value in resolving the issues before the court"[[113]](#footnote-114).
3. In *Makita (Australia) Pty Ltd v Sprowles*[[114]](#footnote-115), on which the appellant relied, Heydon JA focused on the admissibility of expert opinion evidence at common law depending on, first, the expert's opinion having "some rational relationship with the facts proved"[[115]](#footnote-116), and, second, the expert fully exposing the reasoning for the opinion given, to enable the trier of fact to weigh and determine the probabilities on the whole of the evidence, including the expert opinion, for themselves[[116]](#footnote-117).
4. In *Cross on Evidence*, seven criteria for the admissibility of expert opinion evidence at common law are identified[[117]](#footnote-118): (a) the existence of a field of specialised knowledge; (b) an aspect of that field in which the witness is, by training, study or experience, an expert; (c) the expert opinion is wholly or substantially based on the witness's expert knowledge; (d) the assumptions of primary fact on which the opinion is based are identified; (e) evidence has been or will be admitted to prove those primary facts, or sufficiently like facts to make the opinion useful[[118]](#footnote-119); (f) demonstration that the facts on which the opinion is based form a proper foundation for it; and (g) demonstration of the scientific or other intellectual basis of the conclusions reached.
5. Reflecting the reality that these criteria are not all mutually exclusive, the appellant's case, framed as one in which the impugned evidence of Dr Ong was not based on his expertise as a forensic pathologist, partly depended on the opinion not having a demonstrably rational relationship with Dr Ong's expertise and Dr Ong's evidence before the jury not exposing the scientific basis for the opinion expressed.
6. Another reality is that the requirement expressed in *Makita* that the expert's evidence must "fully" expose the expert's reasoning process[[119]](#footnote-120) does not involve an absolute standard, even in a case where admissibility is governed by the terms of s 79 of the uniform evidence legislation[[120]](#footnote-121). Much will depend on the field of expertise and the nature of the opinion given. Accordingly, in *Dasreef Pty Ltd v Hawchar*, French CJ, Gummow, Hayne, Crennan, Kiefel and Bell JJ said that, for example, "a specialist medical practitioner expressing a diagnostic opinion in [their] relevant field of specialisation is applying 'specialised knowledge' based on [their] 'training, study or experience', being an opinion 'wholly or substantially based' on that 'specialised knowledge', will require little explicit articulation or amplification once the witness has described [their] qualifications and experience, and has identified the subject matter about which the opinion is proffered"[[121]](#footnote-122).
7. The point being made in *Dasreef* is that, while satisfaction of the requirement that an expert opinion must be based on the expert's expertise determines the admissibility and not just the weight of the evidence[[122]](#footnote-123), it is not necessarily the case that, if all matters underlying the opinion expressed are not "made explicit, it is not possible to be sure whether the opinion is based wholly or substantially on the expert's specialised knowledge"[[123]](#footnote-124). Depending on the field of expertise and the expert opinion given, some matters may be properly assumed or inferred as forming part of the foundation of the expert's opinion. In *Hannes v Director of Public Prosecutions (Cth) [No* *2]* this reality was expressed in the observation that "the need to demonstrate the process by which an inference was drawn is less likely to be insisted upon with strictness in the case of a well‑accepted area of expertise, than in other cases"[[124]](#footnote-125). In *Honeysett v The Queen*[[125]](#footnote-126), French CJ, Kiefel, Bell, Gageler and Keane JJ expressed this criterion as requiring not so much that every foundation for the opinion is to be "fully expose[d]"[[126]](#footnote-127) or "made explicit"[[127]](#footnote-128), but that the expert evidence "must be presented in a way that makes it possible for a court to determine that it is [substantially] based" on the person's training, study, or experience[[128]](#footnote-129).
8. To these realities must be added another observation. It is that no expert evidence is based exclusively on the expert's training, study, or experience. All fields of specialised knowledge assume "observations and knowledge of everyday affairs and events, and departures from them", it being the "added ingredient of specialised knowledge to the expert's body of general knowledge that equips the expert to give [their] opinion"[[129]](#footnote-130).
9. It is also important to recognise that while expert opinion evidence must have a rational relationship with the facts proved (or anticipated to be proved) to be admissible, the requirement is for purported, not actual, justification for the opinion expressed. Accordingly, it has been said that the "giving of correct expert evidence cannot be treated as a qualification necessary for giving expert evidence"[[130]](#footnote-131). As noted, at common law, the threshold of reliability for expert evidence is governed by the requirement for the area of expertise to constitute a "body of knowledge or experience which is sufficiently organized or recognized to be accepted as a reliable body of knowledge or experience, a special acquaintance with which by the witness would render [their] opinion of assistance to the court"[[131]](#footnote-132). At common law, once it is accepted, as in this case, that there is such an area of expertise and the witness is an expert within that area, reliability is not a determinant of admissibility, albeit expert evidence remains subject to the power of exclusion in a criminal trial if its probative value is outweighed by its prejudicial effect. If admitted into evidence, the "weight to be attached to [the] opinion is a question for the jury"[[132]](#footnote-133).
10. It was no part of the appellant's argument that the impugned evidence of Dr Ong was inadmissible because it addressed the ultimate issue which was for the jury as the trier of fact to decide. This reflects the fact that the impugned evidence of Dr Ong concerned only whether it was more likely that the wounds to the deceased were inflicted by another person than self‑inflicted, and the dubious status of any rule remaining at common law excluding expert evidence about the ultimate issue[[133]](#footnote-134).

The fact in issue

1. The "starting point in determining the admissibility of evidence of opinion is relevance: what is the fact in issue that the party tendering the evidence asserts the opinion proves or assists in proving"[[134]](#footnote-135).
2. In the present case, the fact in issue to which the impugned evidence of Dr Ong was addressed was whether the knife wounds (one external wound and multiple internal wound tracks) which caused the deceased to bleed to death were self‑inflicted or inflicted by another. As noted, the appellant accepted that forensic pathology was a field of expertise, that Dr Ong was an expert in forensic pathology, and that the question whether wounds may have been self‑inflicted or inflicted by another was capable of being the subject of expert evidence if "a suitable foundation as to the [witness's] training, study or experience has been laid"[[135]](#footnote-136).

Dr Ong's expertise (as put before the jury)

1. Dr Ong held a Bachelor of Medicine and Bachelor of Surgery, and specialist degrees in forensic pathology including a Master of Pathology and a Diploma of Medical Jurisprudence. In 2000, after passing further specialist examinations, Dr Ong became a Fellow of the Royal College of Pathologists of Australasia. At the time of giving evidence, he had been a forensic pathologist for about 25 years. He had been employed by Queensland Health as a forensic pathologist for 18 years.
2. In his evidence in chief at the trial, Dr Ong explained that his main task as a forensic pathologist was performing autopsies for coronial inquiries to establish the cause of death. In such cases, he would issue a post‑mortem report identifying his findings and the cause of death if this could be determined. He had performed about 4,000 to 5,000 autopsies in total, at a rate of about 160 to 200 cases a year, as well as supervising an additional 20 to 30 autopsies a year. Dr Ong was familiar with the relevant literature and had examined the literature with specific regard to the minutiae of this stabbing.

Dr Ong's evidence in the pre-trial hearing

1. Dr Ong explained that the stab wounds to the deceased's abdomen involved one entry wound and multiple internal tracks. Between the insertions of the knife making, first, the entry wound and two internal tracks and, second, the other three internal tracks, the knife had been partially withdrawn, rotated, and reinserted. The rotation of the knife was effectively 180 degrees from the sharp edge of the knife being upwards in the direction of the deceased's head to downwards in the direction of the deceased's feet. Dr Ong said that "given the injuries, it is more likely that this injury [was] caused by another party" but he could not "definitely rule out ... that it can be self‑inflicted".
2. Dr Ong said he based this opinion on three major factors: (a) his experience with stab wounds; (b) his deductions from the literature; and (c) the lack of any hesitation wounds. Dr Ong explained that the multiple stabs (through the one entry wound causing the multiple internal tracks) were more suggestive of homicide, as was the lack of hesitation injuries such as smaller or superficial wounds around the major stab wound, because in certain cases when people inflict self‑harm they "test [the] waters" to see how painful the act might be.
3. Dr Ong said that a single entry wound with multiple tracks is "fairly rare". He then said that the conclusion he reached was "[he] would say ... getting the logical sense of what has happened". He explained this, saying that, in this case, if the injury was self‑inflicted, the deceased would have stabbed herself causing the entry wound and the two internal tracks, then would have partially withdrawn the knife so that about four to five centimetres of the blade remained inside the body, rotated the knife, and stabbed herself again in a different direction at least twice.
4. Dr Ong gave other evidence during the pre‑trial hearing, but that evidence is not critical for the purposes of the appellant's argument. The part of Dr Ong's evidence in the pre‑trial hearing that is critical for the purposes of the appellant's argument is Dr Ong's statement that he relied in part on "getting the logical sense of what has happened". Dr Ong did not repeat this statement during his evidence in the trial. The appellant submitted that, understood in the context of the evidence given during the trial, this statement supported the conclusion that Dr Ong's impugned evidence about the relative likelihood that the fatal wounds were inflicted by another person as opposed to self‑inflicted, as given in the trial, was not based on his expertise as a forensic pathologist.

Dr Ong's evidence in the trial

1. Dr Ong explained that he attended at the scene of the death. He made observations of the deceased's body in situ. He conducted the autopsy of the deceased and prepared a report relating to that autopsy.
2. Dr Ong was asked in his evidence in chief about his "interpretation with respect to the injuries as to whether they may have been self‑inflicted. Are there factors that you take into account in determining whether this was a self‑inflicted injury or not?" Dr Ong said that this was a difficult issue with respect to stab wounds to the abdomen. While Dr Ong clearly identified that the issues "we" (meaning forensic pathologists) considered were (a) injuries elsewhere that may indicate self‑harm, like an incision to the wrist, and (b) the multiplicity of stab wounds (which was the strongest factor in his view), the balance of his evidence in answer to this question is difficult to follow. This is what the transcript records:

"One is there – is there any issues such as the self‑harm and I mentioned has the patient injuries – injuries elsewhere that may indicate self‑harm, like incision to the wrist and so forth. Second is looking at the – the fact that the stab wound has occurred for the ... This are – this has de – described in forensic texts and journals. And I believe these are not very strong factors to decide one way or another. The – I think in – in my determination, the – the strongest factor or – or the one that I take most into account is the multiplicity of the stab wounds. I detected ... the two main directions and this include rotation of the blade. To – take into account that the – in the first instance – that is, track wound A – wider structures has been damaged or – or – sorry, involved. That is the main one I take into account is the inferior vena cava which will cause bleeding. A profuse amount of bleeding, and also even the liver substance itself. The liver itself, which is a very vascular organ, and I also take into account that – I mentioned the rotation of the blade and – and that it appears that some of the wounds, judging by the blood on her hand, that it's only – if – if it's self‑inflicted, it – it may be only the – the left hand was involved, especially at the later stages. The – the initial stages, it's possible both hands can be involved because there's no bleeding yet. But after the bleeding has occurred, it was only the left hand that was – has bloodstains.

... And taking into account all this, I would think that it is more likely that this wound caused by a – a second – a different person or a second – a different party. But having said that, I think that I cannot completely eliminate the fact that it – it cannot be a self‑inflicted injury."

1. Dr Ong also gave evidence in chief in this exchange:

"Now, the last thing I wanted to ask you about was the degree of pain. Now, I assume that you've never stabbed yourself in the stomach, Doctor, so you can't give evidence with respect to that. But are there pain receptors in or around that part of the body? ‑‑‑ Yes.

All right. Can you comment on the degree of reaction or the degree of pain, something sharp being inserted into the abdomen would cause?‑‑‑ I – well, all I can say is it's probably painful."

1. In cross‑examination in the trial, Dr Ong said that the fact that one track had severed both the liver and the renal vein indicated that the body was in a curled up or crouched position, including possibly being curled up sideways on the mattress. He said that it might have taken up to five seconds for the knife to be inserted, withdrawn, rotated, and reinserted. He confirmed that he was certain the deceased had been alive when stabbed and died from blood loss from the stab wounds to the abdomen. He said that the deceased bled profusely. While it was difficult to estimate how people might withstand blood loss, he considered there would be "serious consequences" within the first 15 minutes of these wounds, perhaps within five minutes. He was certain, however, that these serious consequences would take minutes to occur, not seconds. He was also certain that none of the injuries could have immediately disabled the deceased or immediately prevented her from moving.
2. Dr Ong was then asked a series of questions about what he took into account to conclude that the stabbing was more likely to have been inflicted by someone other than the deceased. Dr Ong said that the presence of other fresh wounds (eg incisions on the wrist) would indicate a failure to take one's life by that means, and that any observable injury "suggestive of a previous attempt to take her life" would also weigh towards the wounds being self‑inflicted. As noted above, Dr Ong observed no such other wounds or hesitation wounds of any kind. In cross‑examination, he also confirmed that he knew nothing about the deceased's mental health history. He said that had he known of a mental health history of attempted self‑harm he would have taken it into consideration but would have looked at "all the features" and the "whole picture" rather than focus on the previous self‑harm alone.
3. Dr Ong said that the knife perforating the sheet before entering the body occurred more often in suicides but was "not a very strong feature" and could be described as "neutral" in his consideration.
4. Dr Ong confirmed that the number of stab wounds was a relevant factor. He said that there was one external wound with four or five internal wound tracks. He said that "a general acceptance is that the more stab wounds ... it's more likelihood that it's done by a different party". One (external) stab wound was "equivocal". He was then asked if one (external) stab wound with multiple internal tracks was also equivocal. He said that one had to "go into the minutiae of ... the stabbing". He had looked at the literature and found three cases of a self‑inflicted injury with multiple tracks inside a single stab wound. He noticed that in all those cases there was only one track that caused a major injury that resulted in death. He also said that in none of these cases was there a rotation of the knife.
5. Dr Ong was then asked whether the difference between one (external) stab wound with multiple internal tracks and one (external) stab wound with multiple internal tracks and a rotation of the knife was relevant to the stabbing being more likely to be suicide or homicide. He said that this would play a role because there would be a delay in the blade being rotated. In his words:

"Because when the blade is rotate – withdrawn, there – there's be a – a bit of rotation before being plunged again. So I think that it – it plays – it does play a role in the final – what – what I – in – in my opinion, in how the injury occurred."

1. Dr Ong was then asked if the rotation was significant because it might cause more pain than stabs in one direction. He answered:

"It's not just the, I think, pain. It's just the – features of it. I mean, if you have two stabs in one direction and these stabs are – they will eventually kill. I agree with you that in a – initial instance, it may not be immediately fatal. And then we have a – a de – a slight delay because there's a rotation of the blade.

... And further plunging in a different direction. And – and that is a bit – that is odd. That is not common and I have not found any case of report of stabbing inj – injuries by this means."

1. Dr Ong said he had found no literature on a single entry (external) wound, a couple of stabs, the rotation, and a couple of more stabs. He had also not dealt with a case like that.
2. There was then this exchange in which Dr Ong gave evidence:

"Is it the fact of the delay that would have been necessary to turn the blade what is significant in your mind; is it?‑‑‑I think this – it does play a part in my decision, yes.

What else – what else is there? I'm just trying to understand the significance of the rotation of the knife?‑‑‑And – and of course, the multiple tracks. Although I've quoted three cases, these are only three cases in multiple cases that we have experienced, you know.

I understand. What I'm trying to get at is as I understand it, in your mind it's significant that there has been a rotation of the knife?‑‑‑Yes.

And I'm just trying to understand why that's significant. As I understand it you've said it's significant in part because there might have – well, there would've been some delay to turn the handle. What's the – any other significance of it?‑‑‑I just find that it's – that if a person needs to – in an attempt to – to self‑inflict injuries, that it – that – that the injurer would take the trouble to rotate a blade, rather than just plunge it in different directions.

Okay. And is that the sum total of it, of the significance of it?‑‑‑Yes. Looking at it, yes."

1. When asked again to explain what he meant, Dr Ong said that the rotation of the knife was "definitely not commonly found, and it's fairly unusual" and that he had never come across such a case but that did not mean it could not occur. In context, this can only mean that Dr Ong had not come across such a case in the context of suicide. This is confirmed by his subsequent evidence that the literature deals with many unusual cases, and that there are highly unusual and very extreme ways people choose to kill themselves.
2. Dr Ong said that he had seen perhaps 20 cases of suicide involving more than 20 or 30 (external) stab wounds but explained that "all these stabs are – they're fairly superficial, you know". He agreed that, while superficial, such wounds would still be painful. He accepted that the stab wounds of the deceased could have been self‑inflicted but did not agree that multiple stab wounds (meaning, in this case, the internal stab wounds represented by the different wound tracks) were a neutral feature as they always "point towards ... a possible second party involvement", albeit it was not a definitive factor. He accepted that in this case no feature, alone or in combination, was "definite".
3. Dr Ong accepted that the lack of defensive injuries on the deceased's body, with no evidence of any attempt to grab the knife or ward off an attacker, and the apparent lack of a struggle were features that would weigh in favour of the stab wounds being self‑inflicted.

Admissibility of Dr Ong's impugned evidence

1. It is first necessary to recognise that Dr Ong's evidence was given orally, and not in a written report. In the giving of oral evidence there is little opportunity for the witness to organise and order their evidence in a manner best suited to enhance the listener's ease of understanding. The fact that a person is an expert in a particular field does not mean that they will also have high levels of verbal fluency in expressing their expert opinions. It will be apparent from the summary of Dr Ong's evidence above that, whether by reason of his own verbal fluency or the transcription of his evidence, some parts of his evidence are more difficult to follow on the transcript than others. It must be accepted, however, that reading a transcript of evidence is one experience, whereas hearing the evidence being given is another experience. A listener has available multiple cues to make sense of what is being said that are not available to the reader. As any person who has both been present while things are said and then read a transcript of what has been said knows, utterances that appear disjointed on reading a transcript, such as pauses, backtracking, grammatical inconsistencies, and apparent incompleteness of trains of thought, may be perfectly clear to a listener who has available the full suite of cues that listening, rather than reading, provides. The transcript of Dr Ong's evidence is to be read with these considerations in mind.
2. Further, it cannot merely be assumed that Dr Ong, in giving any part of his evidence, was not basing his opinions on his specialist qualifications and work of 25 years as a forensic pathologist. Take Dr Ong's evidence about the relevance of other injuries indicating self‑harm as an example. When giving his evidence in chief Dr Ong's focus, apart from the lack of hesitation wounds, was on injuries indicating that the person had made a failed attempt at suicide (such as incising the wrists) immediately before the successful attempt causing death. He said that evidence of a failed attempt at suicide was relevant but was not a very strong factor to decide one way or another. To a lay person, this seems counter‑intuitive. A lay person may well assume (wrongly, it seems, according to Dr Ong) that a fresh injury consistent with a failed suicide attempt would be compelling evidence that the fatal injury was also the result of self‑harm. For Dr Ong, the multiplicity of stab wounds (by which he means, in this case, the multiplicity of internal tracks showing the partial withdrawal and replunging of the knife into the single external stab wound in the skin of the abdomen) and the rotation of the knife were the strongest factors. In his cross‑examination, Dr Ong accepted that any observable injury "suggestive of a previous attempt to take her life", presumably not only a fresh injury, would also weigh towards the wound being self‑inflicted. He also accepted that any history of self-harm on the part of the deceased would have been relevant to his assessment of the cause of death, but he would consider "all the features" and "the whole picture", not just that history. This evidence is all consistent with his overall opinion being that evidence of previous self‑harm directed to suicide, whether fresh or in the past, was a relevant but not a very strong factor pointing to suicide. Multiple stab wounds, however, whether they were external or internal, were a factor clearly associated with infliction by another person.
3. In accepting that evidence of other injuries suggestive of self‑harm was relevant but not a very strong factor to determine if the cause of death was self‑inflicted or not, Dr Ong was applying his expertise as a forensic pathologist. Dr Ong was not purporting to give psychological evidence about the relative or absolute risk of suicide in a person who had, either immediately before the infliction of the fatal wounds or at some time in the past, self‑inflicted injuries indicative of attempted suicide. Equally, he was not giving evidence that a person with the deceased's asserted mental health history was more or less likely than any other person to commit suicide. Rather, Dr Ong was explaining that if he was aware of such self‑inflicted injuries or a mental health history indicating a previous suicide attempt, he would take that into account as a relevant but not a very strong factor in assessing if wounds causing death were self‑inflicted or not. As explained immediately below, this is unexceptionable.
4. It is apparent from Dr Ong's evidence that it is not always possible for a forensic pathologist to determine a cause of death. It must follow that any autopsy might provide a forensic pathologist with information which is of greater or lesser significance, and/or involves a greater or lesser degree of ambiguity in respect of ascertaining the cause of death. A forensic pathologist does not stray outside their field of expertise if, faced with ambiguous information yielded by an autopsy, the forensic pathologist considers other information (such as fresh or past injuries indicative of attempted suicide, or a person's mental health history) to ascertain if that assists in resolving the ambiguity. The only proposition which must underlie such a reasoning process is that a person who has attempted suicide or self‑harm once may have attempted it again. In this context, it must be recalled that Dr Ong has worked as a forensic pathologist for some 25 years. He has performed anywhere between about 4,000 to 5,000 autopsies. It should readily be inferred from this that the underlying proposition, that people who have previously attempted suicide may have attempted it again, is based on Dr Ong's expertise and experience in performing autopsies in cases of suspected suicide as against cases where suicide can be excluded. This evidence is no different in quality or nature from his evidence that a lack of hesitation wounds and the presence of multiple stabbings weigh against suicide. It should not be inferred that Dr Ong was purporting to give amateur psychological evidence under the guise of his forensic expertise.
5. The apparent proposition underlying Dr Ong's impugned evidence must also be placed in its proper context. His evidence was that he would have considered relevant any prior self‑inflicted injuries indicative of attempted suicide (whether they were fresh or in the more distant past). He accepted that he also would have considered evidence of factors suggesting the deceased's "previous self‑harm". But the deceased had previously only *threatened* to self‑harm. She had not in fact inflicted self‑harm. Consistently with this, Dr Ong had found no evidence of injury suggesting previous self‑harm or attempted suicide. Moreover, even if the deceased had a history of actual self‑harm (which she did not) and Dr Ong had been aware of that, his point was that this would not be a strong factor, and he would have to consider "all the features" and the "whole picture". The reason he would do so, it must be inferred, results from his expert opinion that the materiality of a history of self‑harm can be gauged only by the other evidence yielded by the autopsy. That is, the very process of assessing the materiality of a history of self‑harm, if any, depends on the application of Dr Ong's expertise as a forensic pathologist.
6. While Dr Ong always looked at the "whole picture", as explained, he did so through his expert perspective. Moreover, in this case, the first factor that led him to consider that the stab wounds were not self‑inflicted was the number of stabs, meaning the number of times the knife had been thrust causing the internal wound tracks. As noted, Dr Ong did not accept that one stab wound with multiple internal tracks was merely "equivocal". He said that the "minutiae of ... the stabbing" had to be considered. He subsequently repeated his refusal to accept the "neutral" status of the multiple stabbings within the one external wound by saying that "multiple stab wounds ... always points towards" the possible involvement of another person, even if they are not, of themselves, a definitive feature. This opinion was plainly based on his expertise as a forensic pathologist.
7. Further, while Dr Ong had found three cases of suicide with one stab wound and multiple internal tracks, none of these involved partial withdrawal and rotation of the knife. Those facts, partial withdrawal and rotation of the knife before replunging the knife in a different direction, would have involved some delay which Dr Ong found "odd". It is plain that, in context, Dr Ong meant that he found this "odd" in respect of a suicide. While he said he had found no reported cases of "a single entry wound, a couple of stabs, the rotation, a couple more stabs" in the literature (and, by this, Dr Ong should be understood to have meant no cases at all in the literature, whether murder or suicide), that does not mean that his evidence – that he found the injuries and how they had been inflicted (multiple stabs causing multiple internal wound tracks with a partial withdrawal and rotation of the knife before reinsertion of the knife) "odd" for a self‑inflicted injury – was not based on his expertise.
8. It is unexceptionable that Dr Ong would bring to bear all his expertise to say that this sequence of events was "odd" for a self‑inflicted injury (and, by necessary implication, not so odd for an injury inflicted by another) where: (a) he had said that multiple stabs, even if inside the same external wound, were always relevant and more indicative of an injury inflicted by another person and, in this case, there were multiple stabs; (b) in other cases of multiple stabs in suicides the stab wounds were fairly superficial (unlike the wounds in this case); (c) the stabbing in this case would have been painful for the deceased; and (d) the partial withdrawal and rotation before reinserting the knife would have involved delay. These are the factors, identification of each of which is itself based on Dr Ong's expertise, which led him to the view that it was more likely these wounds were inflicted by another person, even though he could not definitively exclude self‑infliction. These must also be the factors that he had in mind when he said in his evidence during the pre‑trial hearing that "the logical sense of what has happened" caused him to consider that the injuries were more likely to be inflicted by another person than by the deceased.
9. It is apparent that Dr Ong was not purporting to give evidence as to the deceased's psychological state or, indeed, the psychological state of any person who ends their own life. He was explaining that the evidence of the wounds themselves (the single external wound and the multiple internal wounds showing a partial withdrawal and rotation of the knife), based on his expertise and experience over 25 years, led him to the conclusion that the wounds were more likely to be inflicted by another person than to be self‑inflicted. It is because drawing conclusions from wound patterns involves a process of deductive reasoning based on expertise as a forensic pathologist, and because he had no expertise to opine as to the particular psychology of the deceased at the time of the infliction of the wounds (and did not so opine), that he could not rule out the possibility that the wounds were self‑inflicted.
10. The fact that Dr Ong had not identified such a sequence of events in either a suicide or a homicide caused by stabbing does not mean that his evidence was not based on his expertise and does not mean his evidence lacked a rational foundation. The essence of expertise is the capacity to reason from facts based on specialist training, study, or experience. It is obvious that it is highly unlikely that any case of suicide or homicide reported in the literature will be identical to an actual case which confronts a forensic pathologist. The lack of an identical case of either suicide or homicide does not mean a forensic pathologist such as Dr Ong is incapable of providing an admissible expert opinion. He is entitled to bring to bear all his specialist training, study, or experience to form an opinion without being able to point to an identical or even similar case. It is clear from a fair reading of the transcript of Dr Ong's evidence that the impugned evidence was based on his specialist knowledge and reflected the combined effect of that knowledge brought to bear on multiple facts that he could ascertain only by reason of his specialist expertise: specifically, the single entry wound with no sign of other superficial or smaller hesitation wounds (which are apparent in certain cases of suicide), the lack of any injuries suggestive of a failed attempt at suicide either immediately before the infliction of the fatal wounds or at an earlier time (which are also apparent in certain cases of suicide), together with the multiple internal tracks showing multiple thrusts of the knife into the deceased's abdomen (which are indicative of homicide), as well as the partial withdrawal and rotation of the knife before reinsertion to create three additional internal wound tracks (when multiple stabs are indicative of homicide, and the partial withdrawal, rotation and reinsertion of the knife would have taken time to achieve and involved further pain).
11. The evidence of Dr Ong did not involve merely "putting from the witness box the inferences upon which" the prosecution's case rested[[136]](#footnote-137). Given his expertise and the underpinning of the impugned evidence, Dr Ong's opinion as to the likelihood of the fatal wounds being inflicted by another person rather than self‑inflicted was not cloaked "with a spurious appearance of authority", and thereby did not involve any risk that "legitimate processes of fact‑finding may be subverted"[[137]](#footnote-138).

Ground two – conclusion

1. For these reasons ground two must be dismissed.

Order

1. The appeal must be dismissed.

**SCHEDULE**

**TEXT MESSAGES, EMAILS AND PHONE CALLS**

1. On 7 July 2013, Mrs Boyce sent a text to her son, Zachary, which said:

" ... I think I have made a decision to stay with Dad as I have been thinking what would it be like with 2 bipolar people together – not very good. Sorry darling but my emotions are running high. Love you. Mum x".

2. On 24 July 2013, Mr McAlpine sent Mrs Boyce a message saying, "I'm wondering what happened. Did I offend you? I never had a chance to apologise and explain. I hope you're still talking to, and are still friends with me? X O X". She responded to Mr McAlpine on the same day that "I'm still friends with you Kenneth. This Sat I'm off to Hong Kong as I won the trip for 2 people for one week and I'm taking my son. Talk when I get back."

3. On 13 November 2013, Mrs Boyce was in New Zealand with the appellant, and she sent a text to her son saying, "NZ is good but I'm a bit sick of [the appellant] sleeping all day and me up watching TV and reading. Classic depression ... I went to Tauranga the other day and walked around on my own which was a good break out of the house. How are you? I hope work is good and hope Dad is well. Love Mum xo". She texted her son later the same day asking if he could change her flight so she could come back to Australia earlier.

4. Mrs Boyce travelled to New Zealand on 16 February 2015 and did not return until 20 March 2015. On 10 March 2015, Mrs Boyce sent two texts to her daughter, Angelique, saying, "I'm trying to get back to Brisbane Angelique but I'm stuck in South Island New Zealand. I love you and will be back within a week. I will be going to your wedding, Love Mum" and "I should not have come here. I made a mistake. Sorry darling. Love Mum". Her daughter responded, "[y]es you made a massive mistake and have really upset me and Dad who has devoted his whole life to you Mum". Further texts between Mrs Boyce and Angelique on 10 March 2015 included these:

Mrs Boyce: "Dad and I have been talking by ph and texting Angelique."

Angelique: "No you haven't spoken on the phone you have only texted. I think you should apologize straight away to him for going!"

Angelique: "You also haven't bothered to contact me for weeks."

Mrs Boyce: "I spoke to Dad on the phone today. I haven't contacted you because I was upset with you saying I wasn't invited to your wedding. I love you and made a big mistake. Sorry, darling. Love, Mum."

Angelique: "I accept your apology but please stop lying to me."

Angelique: "It can't continue or you will loose [sic] your daughter."

Mrs Boyce: "Ok darling. How are you and Andrew getting on with all the stress of a wedding. Dad said you two have been fighting. You can make the wedding at a later date if you haven't sent out invitations. Love Mum".

5. On 9 April 2015, Mrs Boyce sent a text to Mr McAlpine:

"Kenneth I'm in shock. What are you disappointed in? I just called you but got message bank. Can you text me with a good time to call you please. I really need to talk to you. I want to tell you what's happened to me. I'm on suicide watch because of my news. I can't bear the thought of us not being friends. I want to tell you with my voice not by text. Please text me Kenneth. I need so much to hear from you. Maureen xxoo".

6. On 18 May 2015, Mr McAlpine sent two texts to Mrs Boyce:

"I truly think we would do each other a world of good to [catch] up and spend casual time together, realising we are both okay. If we want to be ourselves. I miss you heaps x O x".

"I truly think we would do each other a world of good to catch up and spend casual time together, realising we are both okay ... If we want to be ourselves. I miss you heaps x O x Don't be shy. Remember how good and easy it is for us."

7. Mrs Boyce sent a text back to Mr McAlpine the same day saying:

"Glad you are enjoying the dusk. Guess what, my daughter Angelique gets married in 2 weeks time on the 30th May. I'm going to Sydney with her tomorrow for her to have final fitting for her wedding dress. The designer is from Israel. The dress is go[r]geous. It is made of lace and is backless with a long train. Nice to hear from you but timing is not good. Luv ya Maureen".

8. Mr McAlpine responded a few minutes later:

"I remember. It all sounds exquisite. I will wait and wait to see you. But don't torture me."

9. The two continued texting on 18 May 2015, including these messages:

Mr McAlpine: "Absolutely fab. Enjoy and remember. Love to you x x".

Mr McAlpine: "But i get the feeling i will never see you again. I feel i wont be important enough. That's wrong, but all I have to go on."

Mrs Boyce: "Kenneth don't be silly. I just have to get through a wedding ... See you soon. Luv ya Maureen".

10. On 7 June 2015, Mrs Boyce sent a text to the appellant:

"I can't believe that you have said to me I've forgotten how to love and am too much into myself! I have worn a blood pressure monitor for 24 hrs and I have high blood pressure and have to take half a tablet morn and night! I wanted to commit suicide yesterday by going out in a cruise boat to the reef and jump over the back of the boat. We can talk anytime up until 10pm my time."

11. The appellant sent a text back later that night:

"Mimi, what's harder. The effort it takes to get here or to continue on the brink of suicide and flirting w it daily? The autumn colors persist here tho you will want warm clothes. You can stay for a while in quiet loving sanctuary (get 1 way tic). If not then i'm coming there or meet you in Brisbane this week. You would insist on the same were it reversed. Don't decide now but sleep on it & let subconscious process it and I'll call you in morn. You know I'm right. Also no rush to sell, July is NOT best month ... A place like yours will sell in 1-5 days. But first things first YOU then US. Talk in am. Relax and rest well."

12. On 22 June 2015, the appellant sent an email to Mrs Boyce with information about divorce in Australia which ended:

"I hope this is helpful as a guide and makes the process less stressful for you. Your everloving and eternal soulmate".

13. The appellant sent another email later the same day saying she should separate her apartment from the property of her husband before its sale and he did not think it "wise to make ANY assumptions about how [Mr Boyce] will proceed once divorce process in[i]tiates".

14. On 27 June 2015, Mr McAlpine and Mrs Boyce were in text communication, their texts saying:

Mr McAlpine: "How are you?"

Mrs Boyce: "Still depressed and I'm not in Brisbane. I send my love to you, Maureen".

Mr McAlpine: "I will be in Cairns from the 13th. If you don't wish to see me, I give up."

15. On 4 July 2015, the appellant sent an email to Mrs Boyce about an advertisement to see the Imperial Russian Ballet perform Swan Lake in Tauranga, New Zealand, in November 2015 saying, "CAN YOU COMMIT TO BEING HERE? IF SO WILL GET SUPER TIX!!"

16. On 9 July 2015, Mrs Boyce sent a text to Mr McAlpine saying, "Hi Kenneth, I'm still in Sydney not Cairns having treatment for my depression. I guess you will now give up on seeing me again. I don't blame you as I'm really sick. Sorry! I still send love to you, Maureen".

17. On 14 July 2015, the appellant sent Mrs Boyce an email saying, "[t]hink about being here in NZ on 23 Aug and 27 Aug for 2 great concerts in Auckland. and Sept 5 & 6. perhaps go back after this?? We will [talk] BEFORE committing/planning."

18. On 16 July 2015, the appellant sent Mrs Boyce an email about "[g]obsmacking homes" he had been to see in New Zealand. He sent another email about homes on 19 July 2015, with a further email on 23 July 2015 under the heading, "THIS IS THE PERFECT CLASSY HOUSE FOR US".

19. On 9 August 2015, the appellant sent Mrs Boyce an email with flight information between Auckland and Brisbane ending with "One Way grab". He sent her more flight information the next day, 10 August 2015. On 13 August 2015, he sent her an email about the Tauranga festival saying, "TO LOOK FORWARD TO: HOPEFULLY TGA WILL BE YOUR HOME BY THEN!!!!!!!!!!!!!!!!"

20. Between 20 August and 1 September 2015 there were a series of texts Mrs Boyce sent her daughter including these:

Mrs Boyce: "Angelique, Zachary is wanting you to call him with the sex of your baby. Let him guess I didn't tell him."

Mrs Boyce: "Angelique hope you are feeling well and not too tired. You will have to book your baby into private school - Boys Grammar or Churchie are the best. Love Mum".

Mrs Boyce: "Hi darling we are at Sheraton Mirage at Port Douglas lying around the lagoon!!! It's perfect day with sunshine. Zachary is working at North West Hospital today and he just did a Caesarian [sic] which was a boy. How exciting!! Love Mum".

Mrs Boyce: "Hi Angelique, Macleay Towers ... is open for inspection at 2.15pm till 3pm today. Do you think you and Andrew could go for an inspection and see what real estate man says to you. Don't tell you are related to us. Thanks love Mum".

Mrs Boyce: " ... Our sub penthouse is open for inspection till 3pm today. Please look at it. Love Mum".

21. On 25 August 2015, Mrs Boyce sent a text to her son saying, "I'm great. I'm out of my depression totally feel good. I get up early each morning now at 8am which is so wonderful. Happy studying love Mum".

22. On 1 September 2015, she sent a text to the appellant saying, "[c]an't wait to see you babe and make love!!"

23. On 3 September 2015, Mrs Boyce's daughter said she would come over to see her on the weekend.

24. On 3 September 2015, Mrs Boyce and the appellant exchanged a series of texts including these:

Appellant: "how is my darling on this blesse'd day? Love and miss you – sure would like to kiss you!"

Mrs Boyce: "I'm great darling how are you? I also would love to kiss you too, not long now 1 week. Man from New Guinea loves my place and said his wife is coming to look at it in 2 weeks time."

Appellant: "Hi darl, what is your Brisbane mortgage currently? Tt".

Mrs Boyce: "A couple of hundred thousand dollars. Insignificant! Why??? M".

Appellant: "Just thinking of our future options! T xox".

Mrs Boyce: "What about your options?"

Appellant: "OUR options".

Mrs Boyce: "What about my options? M Graham has a life insurance valued at $5 million and I'm the sole beneficent."

Mrs Boyce: "What exactly are you thinking about for OUR future options?"

Appellant: "We have much to discuss".

Mrs Boyce: "Call me now if you can. What exactly do you want to discuss?"

Mrs Boyce: "I want to talk to you now or else I'm cancelling my trip to NZ".

25. The appellant said he would call Mrs Boyce after a movie. Mrs Boyce then contacted Mr McAlpine who sent her a text on 3 September 2015 saying, "[t]hats [sic] wonderful news. So glad to hear it ... would love to catch up in person before you fly away again." Mrs Boyce responded, "[y]es. Love to. M XOX" to which she received a text " ... is the CORRECT ANSWER! All you need to do is name your time and day to receive your prize". She responded, "Ha ha!! Can't wait to receive my prize. One day next week Mon or Tues sounds good. M xx".

26. A series of texts between Mrs Boyce and her daughter followed arranging her daughter and her son‑in‑law's visit to the apartment.

27. On 4 and 6 September 2015, the appellant and Mrs Boyce exchanged sexually intimate text messages.

28. On 7 September 2015, Mr McAlpine sent Mrs Boyce a text saying, "[h]ello there. About what time would you like me to drop over? It would be nice to see the sunset. X". She responded that she could not see him as she had been invited by a girlfriend to the Gold Coast for a few days and then would fly to New Zealand, ending with "would still love to catch up when I return. I'll call you after I come back from NZ. I'm feeling great and hope you are too. Take care luv ya Maureen". Mr McAlpine responded, "I spent all day yesterday running around and arranging things so I would have today free. Can't say I'm not disappointed when all you had to do was call. Can't say I'm surprised either. Bye".

29. By 11 September 2015, Mrs Boyce's son and daughter had found out she was going to New Zealand. Her son sent texts saying, "Dad's very upset that you would spend his money to go over there and now he can't pay his tax bill" and "[y]ou only phone dad or hang around him when you need something: when you're depressed or need money. It's terrible." Her daughter sent a text saying, "[y]ou have ruined our family Maureen. I want nothing to do with you ever again. Stay away from Dad, Andrew, Me and my baby boy. You will never ever meet your only grandson!!!!! You have caused this. You slut!"

30. Mrs Boyce travelled to New Zealand between 11 and 25 September 2015.

31. On 23 and 24 September 2015, while Mrs Boyce was in New Zealand, Mr and Mrs Boyce exchanged texts, in one of which Mr Boyce said, "[b]ut you would be best to stay permanently in n.z.", and Mrs Boyce said, "[s]top playing games!!! I'm coming back to Brisbane", "I'm finished with him and I can meditate now!", and "[w]hat have you been saying to Angelique? She sent me the nastiest text message."

32. On her flight back to Australia on 25 September 2015, Mrs Boyce sent a text to the appellant saying, "[j]ust got upgraded to first class. I'm drinking French Champayne [sic] !!!" She sent another text to the appellant later that day saying, "[m]iss you already darling. Just got home". The next day, 26 September 2015, the appellant sent a text to Mrs Boyce saying, "I LO[V]E YOU DARLING !!!!!!!!!" Mrs Boyce also received a text from Mr McAlpine later that day saying, "[j]ust in case you don't recognise me, I'll be the tall fellow with the short hair that can't keep his hands off you ;-) X" to which she responded, "[h]a ha! Just in case you don't recognise me I've had my curly hair straightened!!! Luv ya Maureen". Still on 26 September 2015, the appellant sent a text to Mrs Boyce saying, "[d]arling I have re-emailed u the divorce info; Tt", to which Mrs Boyce responded, "going to Sarina's party. I feel so horny and want us to make love. Do you think you could call me now? Mt". Mrs Boyce then sent a text to Mr McAlpine saying, "[w]hat time are you coming Kenneth?" and he responded that he was still on the way as the traffic was "mad". Later in the evening of 26 September 2015, the appellant sent Mrs Boyce a text saying, "everyday I fallin [sic] love with you all over again!"

33. Texts between the appellant and Mrs Boyce continued on 27 and 28 September 2015 including these:

Appellant: "I miss you terribly darling! Tt".

Mrs Boyce: "I always wanted to live in Brentwood LA but now I love NZ and you! Mt Make love to me now! So turned on."

Appellant: "I'm sad missing you terribly. Tt".

34. On 28 September 2015, Mrs Boyce texted her husband saying, "I'm now finished with you so good luck!!!" and "Deanne said she has a buyer for Macleay! I will go to Noël Barbi alright for our divorce!!! You are a horrible assehole [sic] to me and have been for 39yrs. I'm sick of dancing around your moods like this morning when I called you. You couldn't talk because you said you had just got up", to which he responded, "I am so sorry for all i have put you through". The next day, Mr Boyce sent his wife a text saying, "[w]ould you go see dr kennedy who is looking after marks patients". In between texts with Mr McAlpine about the moon, a sunset, and her lost keys, Mrs Boyce sent a sexually intimate text to the appellant, as well as two texts to her husband saying, "I knew you were a nasty SOB just like your mother going around telling people I have mental illness ... but I didn't think you would stoop this low and dirty. Putting on Facebook when I went to NZ crash slut was disgusting. I now want a divorce and I'm serious!!!" and "I need to ruin your reputation in Brisbane ... I will start with Andrew Pennisi!"

35. Between 30 September and 5 October 2015, there was a series of texts between the appellant and Mrs Boyce interrupted by one text from Mrs Boyce to her daughter on 3 October 2015 saying, "[t]o call your mother a slut is so disrespectful and horrible. Remember I gave birth to you and have done so much for you. I repeat I am not a slut I'm your mother. When you apologise to me I may talk to you again." The texts between the appellant and Mrs Boyce included these:

Mrs Boyce: "Why don't you come visit me for a couple of weeks on your birthday. I can pick you up at airport. Love Maureen".

Mrs Boyce: "It's your birthday tomorrow!! What's wrong darling? I haven't heard from you. Just got home from hairdressers and real estate man is coming here at 3.30pm for meeting with me. Mt".

Appellant: "been down since you left, bummer. Tt".

Mrs Boyce: "I'm sorry to hear that. Read Jesus Lives. It so fantastic and I read it each day. I just love it. Why don't you get on a plane and visit me in Brisbane. Love Maureen".

Mrs Boyce: "STOP SMOKING!!! It causes depression. You won't be in the way here so get on a plane tomorrow and come here only 3hr flight. You can't smoke here so come on over. Love you. Mt".

Mrs Boyce: "Come to Brisbane darling. It's time we let our adult offspring take care of their own lives. It's time for us. M".

Mrs Boyce: "Why don't you call me. Sorry I missed your call today. Mt".

Mrs Boyce: "Call me darling. I called you at 11am this morning for your birthday. Mt".

Mrs Boyce: "Don't worry about your son. He'll be ok. I think you were about 26 when I got pregnant with Zac! Look what happened there. Maybe you were a year older I can't remember. It's time to look after yourself darling. Mt".

Mrs Boyce: "To the love of my life ... happy birthday darling, may you have a wonderful day today and always all my love from Maureen XXXOO".

Appellant: "I am feeling terrible darling, can you come here? Tt".

Mrs Boyce: "I can't come there darling. You come here just jump on a plane and it's only 3hrs flight. I'll pick you up at the airport. My place is open for inspection now".

Mrs Boyce: "Why don't you pack a few things and get on a plane and come here only 3 hrs. I'll pick you up from the airport. Mt".

Mrs Boyce: "Book a flight this afternoon and come visit me this afternoon!!"

Appellant: "I got my ticket for Brisbane TUES from Tga 115 arr 420."

Mrs Boyce: "Wow! [sexually intimate details]".

Appellant: "yes darling; aiming to be there Tues. Need you. Tt"

Mrs Boyce: "I forgot to ask you on the phone. Can you bring me 2 bottles of Limoncello from duty free Auckland ... Thanks darling. Look forward to seeing you. Mt".

Mrs Boyce: "Darling [sexually intimate details]".

Appellant: "Yes I thought you took it home; you will find; I need you and your love; my soul in turmoil. T."

Appellant: "gnite my lover Tt".

36. The appellant travelled from New Zealand to Brisbane on 6 October 2015.

37. By 8 October 2015, Mr McAlpine and Mrs Boyce were exchanging texts with Mrs Boyce saying on 11 October 2015, "I've got friends from New Zealand staying with me for about 1 more week. We must then catch up. Luv ya Maureen" to which he responded, "[y]es lets. Mwah x".

38. Between 11 and 14 October 2015, Mrs Boyce and her son exchanged texts. He said, "[d]isgusting you would have someone there when dad is sick and working" to which she responded, "[the appellant] arrived yesterday and is severely depressed" and "[d]on't tell Dad. No need to upset him, I hope [the appellant] doesn't stay long as I know about depression. Love Mum". Mother and son agreed they would go out to dinner with him saying, on 14 October 2015, "[w]e can do dinner fri night before the show. I don't want to see [the appellant] though".

39. On 15 October 2015, Mrs Boyce sent a text to Mr McAlpine saying:

"My kiwi friends are still staying with me so I can't see you for another week. They won't leave. I think I will have to be rude and ask them to leave next week. I've had enough. Hope you're well. Luv ya Maureen".

40. On 16 October 2015, Mrs Boyce's son sent her a text saying, "[w]e can get dinner before the show at 730 tonight. Just you and me. I will meet you in my car at front of our building at 6pm". Mother and son continued to exchange texts about his sore throat on 16 and 17 October 2015.

41. From 18 to 21 October 2015, Mrs Boyce made numerous attempts to contact her husband. One text she sent him at 5.28 am on 19 October 2015 said, "I feel all depressed again. Up at 3am today." Mrs Boyce sent him another text at 7.14 am on 21 October 2015 saying, "[c]an u call me ASAP". She then received a text from her friend Sarina Russo on 21 October 2015 about the sale of her apartment saying, "[a]wesome ad – powerful language – today it's 'sold'!!!" Mrs Boyce responded saying, "[t]hanks Sarina. I wrote the ad and Colin offered me a job in Real Estate. I haven't seen the Fin yet. Love Maureen". Mrs Boyce then again attempted to contact her husband between 7.34 am and 7.51 am on 21 October 2015 including sending a text at 7.34 am repeating "[c]an u call me ASAP". Mr Boyce made several attempts to contact his wife from 9.06 am onwards on 21 October 2015. Mrs Boyce also called Mr McAlpine at 10.54 am on 21 October 2015. On 21 October 2015, she also called Sarina Russo twice who then sent a text at 9.04 pm that evening saying, "[s]tay positive! Luv Sarina". That evening there were also calls and missed calls between Mrs Boyce and her husband at 7.04 pm, 7.40 pm, 8 pm, and 8.03 pm. Mr McAlpine and Mr Boyce tried to contact Mrs Boyce the following day, by which time she was dead.

1. *R v Lang* [2022] QCA 29. [↑](#footnote-ref-2)
2. *Honeysett v The Queen* (2014) 253 CLR 122 at 130-131 [21]. [↑](#footnote-ref-3)
3. *Smith v The Queen* (2001) 206 CLR 650 at 655 [11]. [↑](#footnote-ref-4)
4. (2001) 52 NSWLR 705 at 729-745 [59]-[86]. [↑](#footnote-ref-5)
5. *Davie v Magistrates of Edinburgh* 1953 SC 34 at 40. See *Cross on Evidence*, 13th Aust ed (2021) at 1143-1144 [29075] and the cases there noted. [↑](#footnote-ref-6)
6. *Smith's Leading Cases*, 7th ed (1876), vol 1 at 577, quoted and applied in *Clark v Ryan* (1960) 103 CLR 486 at 491 and *Burger King Corporation v Registrar of Trade Marks* (1973) 128 CLR 417 at 421. [↑](#footnote-ref-7)
7. eg *Murphy v The Queen* (1989) 167 CLR 94 at 111, 122, 130-131; *Farrell v The Queen* (1998) 194 CLR 286 at 292-293 [10]-[13], 299-301 [27]-[31], 320-322 [91]-[93]. [↑](#footnote-ref-8)
8. eg *Velevski v The Queen* (2002) 76 ALJR 402 at 427 [156]; 187 ALR 233 at 268. [↑](#footnote-ref-9)
9. *Murphy v The Queen* (1989) 167 CLR 94 at 112. [↑](#footnote-ref-10)
10. *Velevski v The Queen* (2002) 76 ALJR 402 at 432-433 [177]-[182]; 187 ALR 233 at 274-275. [↑](#footnote-ref-11)
11. (2001) 52 NSWLR 705 at 743-744 [85]. [↑](#footnote-ref-12)
12. (2011) 243 CLR 588 at 604 [37]. [↑](#footnote-ref-13)
13. *Velevski v The Queen* (2002) 76 ALJR 402 at 427 [158]; 187 ALR 233 at 268. [↑](#footnote-ref-14)
14. *Velevski v The Queen* (2002) 76 ALJR 402 at 429 [164]; 187 ALR 233 at 270. [↑](#footnote-ref-15)
15. *HG v The Queen* (1999) 197 CLR 414 at 428 [41]. [↑](#footnote-ref-16)
16. (2001) 52 NSWLR 705 at 730 [60]. [↑](#footnote-ref-17)
17. eg *R v Jenkins; Ex parte Morrison* [1949] VLR 277 at 303, approved in *Morrison v Jenkins* (1949) 80 CLR 626 at 637, 641; *R v Juric* (2002) 4 VR 411 at 426 [19]; *Samuels v Flavel* [1970] SASR 256 at 260; *Dasreef Pty Ltd v Hawchar* (2011) 243 CLR 588 at 623 [92]. [↑](#footnote-ref-18)
18. Dixon, "Science and Judicial Proceedings", in Crennan and Gummow (eds), *Jesting Pilate*, 3rd ed (2019) 124 at 130. [↑](#footnote-ref-19)
19. Dixon, "Science and Judicial Proceedings", in Crennan and Gummow (eds), *Jesting Pilate*, 3rd ed (2019) 124 at 130. See also *Dasreef Pty Ltd v Hawchar* (2011) 243 CLR 588 at 623 [92]. [↑](#footnote-ref-20)
20. *General Electric Co v Joiner* (1997) 522 US 136 at 146. [↑](#footnote-ref-21)
21. Rule 702 of the Federal Rules of Evidence. [↑](#footnote-ref-22)
22. (2001) 52 NSWLR 705 at 743-745 [85]-[86]. [↑](#footnote-ref-23)
23. *Makita (Australia) Pty Ltd v Sprowles* (2001) 52 NSWLR 705 at 732 [66], 733 [68]-[69], 735 [72]. [↑](#footnote-ref-24)
24. *Dasreef Pty Ltd v Hawchar* (2011) 243 CLR 588 at 605 [42]. [↑](#footnote-ref-25)
25. *Commissioner for Government Transport v Adamcik* (1961) 106 CLR 292 at 303; *Dasreef Pty Ltd v Hawchar* (2011) 243 CLR 588 at 623 [91]. [↑](#footnote-ref-26)
26. See *Stephens v The Queen* (1985) 156 CLR 664 at 669; *Festa v The Queen* (2001) 208 CLR 593 at 609-610 [51]. See also ss 135 and 137 of the *Evidence Act 1995* (NSW) considered in *Aytugrul v The Queen* (2012) 247 CLR 170 at 186 [32]. [↑](#footnote-ref-27)
27. See *IMM v The Queen* (2016) 257 CLR 300 at 314-315 [50]. [↑](#footnote-ref-28)
28. See *R v Sica* [2013] QCA 247 at [130], referring to Edmond and Roberts, "Procedural Fairness, the Criminal Trial and Forensic Science and Medicine" (2011) 33 *Sydney Law Review* 359 at 380. See also Chin, Cullen and Clarke, "The Prejudices of Expert Evidence" (2022) 48(2) *Monash University Law Review* 59. [↑](#footnote-ref-29)
29. *R v Lang* [2020] QSCPR 26 at [36]. [↑](#footnote-ref-30)
30. *R v Lang* [2022] QCA 29 at [95]. [↑](#footnote-ref-31)
31. See *R v Lang* [2019] QCA 289. [↑](#footnote-ref-32)
32. *R v Lang* [2022] QCA 29 at [9]. [↑](#footnote-ref-33)
33. *R v Lang* [2022] QCA 29 at [7], [115], [116]. [↑](#footnote-ref-34)
34. *Dansie v The Queen* (2022) 96 ALJR 728 at 732 [12]; 403 ALR 221 at 225, quoting *SKA v The Queen* (2011) 243 CLR 400 at 406 [14], in turn quoting *Morris v The Queen* (1987) 163 CLR 454 at 473. See also *MFA v The Queen* (2002) 213 CLR 606 at 614-615 [25], 623-624 [55]-[59]; *SKA v The Queen* (2011) 243 CLR 400 at 405-406 [11]-[14], 412 [37]-[38], 422 [80]. [↑](#footnote-ref-35)
35. See the discussion in *Dansie v The Queen* (2022) 96 ALJR 728 at 731-733 [8]-[17]; 403 ALR 221 at 224-226. [↑](#footnote-ref-36)
36. (1994) 181 CLR 487 at 494-495. [↑](#footnote-ref-37)
37. (1994) 181 CLR 487 at 494 (footnote omitted). [↑](#footnote-ref-38)
38. (2020) 267 CLR 654 at 674-675 [55]. See also *Dansie v The Queen* (2022) 96 ALJR 728 at 732 [12]; 403 ALR 221 at 225. [↑](#footnote-ref-39)
39. *Pell v The Queen* (2020) 268 CLR 123 at 144-145 [37]-[38]; *Dansie v The Queen* (2022) 96 ALJR 728 at 732 [13]-[14]; 403 ALR 221 at 225-226. [↑](#footnote-ref-40)
40. *R v Lang* [2019] QCA 289. [↑](#footnote-ref-41)
41. *Edwards v The Queen* (1993) 178 CLR 193 at 209, quoting *R v Tripodi* [1961] VR 186 at 193. [↑](#footnote-ref-42)
42. (1993) 178 CLR 193 at 210. [↑](#footnote-ref-43)
43. *Zoneff v The Queen* (2000) 200 CLR 234 at 244 [15]. [↑](#footnote-ref-44)
44. See *Edwards v The Queen* (1993) 178 CLR 193 at 209. [↑](#footnote-ref-45)
45. *Edwards v The Queen* (1993) 178 CLR 193 at 211; *Zoneff v The Queen* (2000) 200 CLR 234 at 244 [15]-[17]. [↑](#footnote-ref-46)
46. *R v Lang* [2022] QCA 29 at [3]. [↑](#footnote-ref-47)
47. *Plomp v The Queen* (1963) 110 CLR 234 at 242; *R v Murphy* (1985) 4 NSWLR 42 at 59. [↑](#footnote-ref-48)
48. See [176] above. [↑](#footnote-ref-49)
49. *Dansie v The Queen* (2022) 96 ALJR 728 at 733 [17]; 403 ALR 221 at 226. [↑](#footnote-ref-50)
50. (1989) 167 CLR 94 at 121. [↑](#footnote-ref-51)
51. *R v Lang* [2020] QSCPR 26 at [8]. [↑](#footnote-ref-52)
52. *R v Lang* [2020] QSCPR 26 at [42]. [↑](#footnote-ref-53)
53. *R v Lang* [2022] QCA 29 at [93]-[98]. [↑](#footnote-ref-54)
54. *Cross on Evidence*, 13th Aust ed (2021) at 441 [11035], citing *Ex parte Whitelock; Re Mackenzie* [1971] 2 NSWLR 534, *Dixon v McCarthy* [1975] 1 NSWLR 617 at 636, *Casley-Smith v F S Evans & Sons Pty Ltd [No 2]* (1988) 49 SASR 332, and noting these cases are discussed in *Brown v Commissioner of Taxation* (2002) 119 FCR 269 at 292-293 [93]-[95]; *Australian Securities and Investments Commission v Rich* (2004) 213 ALR 338 at 342-345 [30]-[49]. [↑](#footnote-ref-55)
55. *Sinclair v The King* (1946) 73 CLR 316 at 326; *Demirok v The Queen* (1977) 137 CLR 20 at 31, citing *Basto v The Queen* (1954) 91 CLR 628 at 639-640. [↑](#footnote-ref-56)
56. *MacPherson v The Queen* (1981) 147 CLR 512 at 524. [↑](#footnote-ref-57)
57. *Cross on Evidence*, 13th Aust ed (2021) at 1155 [29080], citing *J* (1994) 75 A Crim R 522 at 531-532. See also *Dasreef Pty Ltd v Hawchar* (2011) 243 CLR 588 at 623-624 [92]. [↑](#footnote-ref-58)
58. (1994) 75 A Crim R 522. [↑](#footnote-ref-59)
59. *J* (1994) 75 A Crim R 522 at 531-532. [↑](#footnote-ref-60)
60. (1994) 75 A Crim R 522 at 531. [↑](#footnote-ref-61)
61. (1994) 75 A Crim R 522 at 531. [↑](#footnote-ref-62)
62. *Mickelberg v The Queen* (1989) 167 CLR 259 at 264, 271, 297-299. See also *Eastman v The Queen* (2000) 203 CLR 1 at 32-33 [104], citing *Ronald v Harper* (1910) 11 CLR 63, *Scott Fell v Lloyd* (1911) 13 CLR 230, *Werribee Council v Kerr* (1928) 42 CLR 1 at 20, *Davies and Cody v The King* (1937) 57 CLR 170, and *Crouch v Hudson* (1970) 44 ALJR 312. See also *Van Beelen v The Queen* (2017) 262 CLR 565 at 591 [77]; *Barnett v Secretary, Department of Communities and Justice* (2023) 97 ALJR 206 at 209 [11]; 408 ALR 1 at 4. [↑](#footnote-ref-63)
63. *Sinclair v The King* (1946) 73 CLR 316 at 324. [↑](#footnote-ref-64)
64. See *Sinclair v The King* (1946) 73 CLR 316 at 324. See also *Cornelius v The King* (1936) 55 CLR 235 at 249; *R v GK* (2001) 53 NSWLR 317 at 335 [74](4)-(5). [↑](#footnote-ref-65)
65. *R v Lang* [2022] QCA 29 at [96]. [↑](#footnote-ref-66)
66. Compare *Federal Rules of Evidence* (US), r 702; *Daubert v Merrell Dow Pharmaceuticals Inc* (1993) 509 US 579 at 597; *Kumho Tire Co Ltd v Carmichael* (1999) 526 US 137 at 141; *R v J-LJ* [2000] 2 SCR 600 at 615-616 [33]-[34]; *R v Trochym* [2007] 1 SCR 239 at 258 [24]. [↑](#footnote-ref-67)
67. Edmond, "Specialised Knowledge, the Exclusionary Discretions and Reliability: Reassessing Incriminating Expert Opinion Evidence" (2008) 31 *UNSW Law Journal* 1 at 1. [↑](#footnote-ref-68)
68. The common law discretion stated in *R v Christie* [1914] AC 545 at 559. See also *Uniform Evidence Acts*, ss 135 and 137. [↑](#footnote-ref-69)
69. *Driscoll v The Queen* (1977) 137 CLR 517 at 541. [↑](#footnote-ref-70)
70. See, eg, *TCN Channel Nine Pty Ltd v Anning* (2002) 54 NSWLR 333 at 359 [145]; *Beer v Duracraft Pty Ltd* [2004] WASCA 192 at [19]; *R v Tang* (2006) 65 NSWLR 681 at 714 [149]; *Keller v The Queen* [2006] NSWCCA 204 at [31]; *Pollard v Wilson* [2010] NSWCA 68 at [85]; *MA v The Queen* (2013) 40 VR 564 at 577 [58]-[59]; *R v Galeano* [2013] 2 Qd R 464 at 495 [125]; *R v Mackenzie* (2016) 78 MVR 327 at 334 [37]; *Museth v Windsor Country Golf Club Ltd* [2016] NSWCA 327 at [39]; *Hawkesbury Sports Council v Martin* [2019] NSWCA 76 at [27]; *Sanrus Pty Ltd v Monto Coal 2 Pty Ltd [No 5]* [2019] QSC 210 at [45]-[46]; *Speets Investment Pty Ltd v Bencol Pty Ltd* [2020] QCA 247 at [140]; *NBM v The Queen* [2021] SASCA 105 at [40]; *Clay v Western Australia* [2023] WASCA 77 at [61]. [↑](#footnote-ref-71)
71. (2001) 52 NSWLR 705 at 743-744 [85]. [↑](#footnote-ref-72)
72. Chin, Cullen and Clarke, "The Prejudices of Expert Evidence" (2022) 48(2) *Monash University Law Review* 59 at 60 (footnotes omitted). [↑](#footnote-ref-73)
73. See also *Clark v Ryan* (1960) 103 CLR 486; *HG v The Queen* (1999) 197 CLR 414 at 427-428 [40]; *R v Juric* (2002) 4 VR 411 at 426 [18]; *Dasreef Pty Ltd v Hawchar* (2011) 243 CLR 588 at 623-624 [92]. [↑](#footnote-ref-74)
74. *Clark v Ryan* (1960) 103 CLR 486 at 491; *Murphy v The Queen* (1989) 167 CLR 94 at 111, 130; *Farrell v The Queen* (1998) 194 CLR 286 at 292-293 [10], 300 [28]-[29]. [↑](#footnote-ref-75)
75. *HG v The Queen* (1999) 197 CLR 414 at 432 [58], quoting *R v Bonython* (1984) 38 SASR 45 at 46-47. See also *Osland v The Queen* (1998) 197 CLR 316 at 336 [53]. [↑](#footnote-ref-76)
76. Chin, Cullen and Clarke, "The Prejudices of Expert Evidence" (2022) 48(2) *Monash University Law Review* 59 at 85, quoting *La Trobe Capital & Mortgage Corporation Ltd v Hay Property Consultants Pty Ltd* (2011) 190 FCR 299at 314 [66]. [↑](#footnote-ref-77)
77. *R v Turner* [1975] QB 834 at 841. [↑](#footnote-ref-78)
78. *Murphy v The Queen* (1989) 167 CLR 94 at 121. [↑](#footnote-ref-79)
79. Dixon, "Science and Judicial Proceedings", in Crennan and Gummow (eds), *Jesting Pilate*, 3rd ed (2019) at 130. See *R v Jenkins; Ex parte Morrison* [1949] VLR 277 at 303; *Dasreef Pty Ltd v Hawchar* (2011) 243 CLR 588 at 623 [92]. [↑](#footnote-ref-80)
80. *Dasreef Pty Ltd v Hawchar* (2011) 243 CLR 588 at 623 [92], quoting *Monroe Australia Pty Ltd v Campbell* (1995) 65 SASR 16 at 27, in turn quoting *Sotiroulis* *v Kosac* (1978) 80 LSJS 112 at 115. [↑](#footnote-ref-81)
81. See *La Trobe Capital & Mortgage Corporation Ltd v Hay Property Consultants Pty Ltd* (2011) 190 FCR 299at 313-314 [66]. See also *R v J-LJ* [2000] 2 SCR 600 at 617-618 [37]. [↑](#footnote-ref-82)
82. (2002) 76 ALJR 402; 187 ALR 233. [↑](#footnote-ref-83)
83. (2002) 76 ALJR 402 at 426-427 [153]-[158]; 187 ALR 233 at 267-268. [↑](#footnote-ref-84)
84. (2002) 76 ALJR 402 at 427 [156]-[157]; 187 ALR 233 at 268. [↑](#footnote-ref-85)
85. *Kennedy v Cordia (Services) LLP* [2016] 1 WLR 597 at 611 [44]. [↑](#footnote-ref-86)
86. *Clark v Ryan* (1960) 103 CLR 486 at 501. See also at 499. See also *Bugg v Day* (1949) 79 CLR 442 at 462. [↑](#footnote-ref-87)
87. *F* (1995) 83 A Crim R 502 at 506-507, 509. [↑](#footnote-ref-88)
88. *Velevski v The Queen* (2002) 76 ALJR 402 at 427 [156]-[157]; 187 ALR 233 at 268. [↑](#footnote-ref-89)
89. *R v Lang* [2022] QCA 29. [↑](#footnote-ref-90)
90. (1994) 181 CLR 487. [↑](#footnote-ref-91)
91. *M v The Queen* (1994) 181 CLR 487 at 493. [↑](#footnote-ref-92)
92. *M v The Queen* (1994) 181 CLR 487 at 492. [↑](#footnote-ref-93)
93. *M v The Queen* (1994) 181 CLR 487 at 494. [↑](#footnote-ref-94)
94. *M v The Queen* (1994) 181 CLR 487 at 494 (footnote omitted). See also *Dansie v The Queen* (2022) 96 ALJR 728 at 730-733 [7]‑[17]; 403 ALR 221 at 223‑226. [↑](#footnote-ref-95)
95. *Coughlan v The Queen* (2020) 267 CLR 654 at 675 [55]. [↑](#footnote-ref-96)
96. *R v Hillier* (2007) 228 CLR 618 at 638 [48]. [↑](#footnote-ref-97)
97. *Coughlan v The Queen* (2020) 267 CLR 654 at 675 [55]. [↑](#footnote-ref-98)
98. *R v Lang* [2022] QCA 29 at [26]‑[27]. [↑](#footnote-ref-99)
99. (1993) 178 CLR 193 at 210-211. [↑](#footnote-ref-100)
100. *R v Hillier* (2007) 228 CLR 618 at 638 [48]. [↑](#footnote-ref-101)
101. *R v Hillier* (2007) 228 CLR 618 at 638 [48]. [↑](#footnote-ref-102)
102. Section 590AA(2)(e) of the *Criminal Code*. [↑](#footnote-ref-103)
103. *Velevski v The Queen* (2002) 76 ALJR 402 at 427 [156]; 187 ALR 233 at 268. [↑](#footnote-ref-104)
104. *Clark v Ryan* (1960) 103 CLR 486 at 491; *R v Bonython* (1984) 38 SASR 45 at 46‑47. [↑](#footnote-ref-105)
105. *R v Lang* [2020] QSCPR 26 at [42]. [↑](#footnote-ref-106)
106. *R v Lang* [2022] QCA 29 at [101]. [↑](#footnote-ref-107)
107. cf *J* (1994) 75 A Crim R 522 at 531‑532. [↑](#footnote-ref-108)
108. *Smith's Leading Cases*, 7th ed (1876), vol 1 at 577. [↑](#footnote-ref-109)
109. (1960) 103 CLR 486 at 491. [↑](#footnote-ref-110)
110. (1984) 38 SASR 45. [↑](#footnote-ref-111)
111. (1984) 38 SASR 45 at 46. [↑](#footnote-ref-112)
112. *R v Bonython* (1984) 38 SASR 45 at 46‑47. [↑](#footnote-ref-113)
113. *R v Bonython* (1984) 38 SASR 45 at 47. [↑](#footnote-ref-114)
114. (2001) 52 NSWLR 705. [↑](#footnote-ref-115)
115. (2001) 52 NSWLR 705 at 732 [64]. [↑](#footnote-ref-116)
116. (2001) 52 NSWLR 705 at 732-733 [67], 739-740 [79]. [↑](#footnote-ref-117)
117. *Cross on Evidence*, 13th Aust ed (2021) at 1117‑1118 [29045]. [↑](#footnote-ref-118)
118. See, however, *Dasreef* *Pty Ltd v Hawchar* (2011) 243 CLR 588 at 605 [41] and *Taub v The Queen* (2017) 95 NSWLR 388 at 394 [30]‑[32] to the effect that this factor goes to weight and not admissibility. [↑](#footnote-ref-119)
119. (2001) 52 NSWLR 705 at 733 [67], 740 [79]. [↑](#footnote-ref-120)
120. eg, s 79(1) of the *Evidence Act* *1995* (NSW), which was applied in *Makita*, provides that " ... [i]f a person has specialised knowledge based on the person's training, study or experience, the opinion rule does not apply to evidence of an opinion of that person that is wholly or substantially based on that knowledge". [↑](#footnote-ref-121)
121. (2011) 243 CLR 588 at 604 [37]. [↑](#footnote-ref-122)
122. *Dasreef* (2011) 243 CLR 588 at 605 [41]‑[42]. [↑](#footnote-ref-123)
123. cf *Makita* (2001) 52 NSWLR 705 at 744 [85]. [↑](#footnote-ref-124)
124. (2006) 165 A Crim R 151 at 226 [292]. [↑](#footnote-ref-125)
125. (2014) 253 CLR 122. [↑](#footnote-ref-126)
126. cf *Makita* (2001) 52 NSWLR 705 at 733 [67]; see also 740 [79]. [↑](#footnote-ref-127)
127. cf *Makita* (2001) 52 NSWLR 705 at 744 [85]. [↑](#footnote-ref-128)
128. (2014) 253 CLR 122 at 132 [24], citing *HG v The Queen* (1999) 197 CLR 414 at 427 [39]. [↑](#footnote-ref-129)
129. *Velevski v The Queen* (2002) 76 ALJR 402 at 427 [158]; 187 ALR 233 at 268. [↑](#footnote-ref-130)
130. *Cross on Evidence*, 13th Aust ed (2021) at 1119 [29045], quoting *Commissioner for Government Transport v Adamcik* (1961) 106 CLR 292 at 303. [↑](#footnote-ref-131)
131. *R v Bonython* (1984) 38 SASR 45 at 47. [↑](#footnote-ref-132)
132. *R v Bonython* (1984) 38 SASR 45 at 46. [↑](#footnote-ref-133)
133. *Murphy v The Queen* (1989) 167 CLR 94 at 110, 127. [↑](#footnote-ref-134)
134. *Honeysett v The Queen* (2014) 253 CLR 122 at 132 [25], citing *Dasreef* (2011) 243 CLR 588 at 602 [31]. [↑](#footnote-ref-135)
135. *Velevski v The Queen* (2002) 76 ALJR 402 at 427 [156]; 187 ALR 233 at 268. [↑](#footnote-ref-136)
136. *Clark v Ryan* (1960) 103 CLR 486 at 492. [↑](#footnote-ref-137)
137. *HG v The Queen* (1999) 197 CLR 414 at 429 [44]. [↑](#footnote-ref-138)