CACC 177/2015

**IN THE HIGH COURT OF THE**

**HONG KONG SPECIAL ADMINISTRATIVE REGION**

**COURT OF APPEAL**

CRIMINAL APPEAL NO 177 OF 2015

(ON APPEAL FROM DCCC 1015/2014)

\_\_\_\_\_\_\_\_\_\_\_\_

BETWEEN

HKSAR Respondent

and

TSANG KAI ON Appellant

\_\_\_\_\_\_\_\_\_\_\_\_

Before: Hon Lunn VP, Hon Pang JA and Hon Toh J in Court

Date of Hearing: 9 March 2016

Date of Judgment: 21 April 2016

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| J U D G M E N T |

Hon Pang JA (giving the judgment of the court):

1. On 20 May 2015, in the District Court, the appellant was convicted after trial of one charge of burglary, contrary to section 11(1)(b) and (4) of the Theft Ordinance, and was sentenced by Judge Douglas Yau, the trial judge, to 3 years and 3 months’ imprisonment. On 29 May 2015, the appellant filed his Notice to apply for Leave to appeal against Conviction and, such partial leave having been granted by the Single Judge (McWalters JA)[[1]](#footnote-1), the appeal was brought before us for determination.

THE PROSECUTION CASE

1. The matter arose from what is commonly called a domestic burglary. The prosecution case was one that relied solely on DNA evidence. It alleged that, in the course of ransacking the burgled premises, the appellant had left his DNA on Exhibit P1, a wooden box. Significantly, this box was found lying on a bed on its own, whereas the plastic box in which it was usually kept had been moved from its original position.
2. To place the above evidence in its full factual context, we refer to the Reasons for Verdict. Beginning with Ms Wong Kei Wang, the occupant of the burgled premises, the judge recounted:

“10. Ms Wong …. left the flat on the morning of 10 January. At around 7:20 pm, she received a phone call from her elder sister who was staying with her[[2]](#footnote-2), telling her that they had been burgled. Ms Wong arrived home at around 8 pm to find her place ransacked, as depicted in the photos of Exhibit P2, photos 1 to 18. The wooden door that can be seen to have been damaged in photos 3, 4 and 5 was intact when she left home.

11. Ms Wong was specifically asked about a wooden box (Exhibit P1). It is her evidence that the box belongs to her mother who has had it for over 20 years and had always been kept in her mother’s room[[3]](#footnote-3), inside the plastic box which can be seen opened on the bed in photo 13, together with other boxes. The big plastic box was not on the bed when Ms Wong left the flat in the morning.

12. Ms Wong did not touch anything while waiting for the police to arrive. She did not touch her mother’s box before the police picked it up.

13. Ms Wong did not employ any part or full-time domestic helper. She had never invited the defendant into her flat, nor was any renovation work being done in the flat. She never gave consent to anybody to enter the flat to take anything on 10 January 2014.”

1. PC 9682, Ng Tai Shing, was one of the officers attending scene. Insofar as it is relevant to the present appeal, Constable Ng’s evidence was that he seized Exhibit P1; he had it in safekeeping until the same was sent to the Government Laboratory for examination[[4]](#footnote-4).
2. Ms Wong Lai Man was the third and final prosecution witness. A forensic analyst, it was Ms Wong who provided the crucial DNA evidence. Her conclusions were (a) the appellant’s DNA and the DNA lifted from Exhibit P1 actually matched, and (b) the probability of that DNA originating from a donor who was not the appellant was but 1 in 11.7 quadrillion. The details of her evidence are as summarized by the judge below:

“22. Ms Wong gave evidence as an expert …. She was the person who conducted DNA tests on the three items that PW2 officer Ng had delivered to her laboratory.

23. The 2 reports prepared by Ms Wong together with a report prepared by a Dr Wun (Exhibit P12) were read into evidence pursuant to section 65B of the Criminal Procedure Ordinance, Cap221. Dr Wun did not give evidence in court but her expertise was not challenged and her statement is taken to be the opinion of an expert.

….

25. Ms Wong was …. able to obtain DNA material from the Exhibit P1 wooden box (itemized as ‘GPY713’ in her reports). She cannot say where exactly the sample came from, that is to say, whether it was from the outside or inside of the box, except that the sample did come from the wooden box ….

….

27. Meanwhile, buccal swaps were obtained from the defendant and analysed by Dr Wun[[5]](#footnote-5). The results [vide Exhibit P12] were referred to Ms Wong for comparison with DNA typing results obtained from the crime scene exhibits.

28. Ms Wong sets out the findings of her comparison of the DNA sample taken from the wooden box and those from the defendant in her report in Exhibit P10. It is her expert opinion that the DNA found on the wooden jewel box (‘GPY713’) could have originated from the defendant.

29. At the Appendix of her report, Ms Wong sets out the DNA systems she used to conduct the DNA matching exercise. She explained that RMP stands for Random Match Probability. In the defendant’s case, the probability of a random person having a similar DNA systems match is one in 11.7 quadrillion (1 followed by 15 zeroes).”

1. Note, however, Ms Wong’s concession regarding match probabilities – had it been taken into account that a likely donor might have blood relatives. This took place during her cross-examination:

“31. In cross-examination, Ms Cheung for the defendant asked questions about calculation of the RMP after taking into consideration the possibility of siblings and relatives. Ms Wong agrees that to do so would yield a different and likely higher probability of matches. Articles were cited to Ms Wong and she was asked for an opinion on the RMP figures of 1 out of 12,379 and 1 out of 10,000 when siblings are factored in. Ms Wong refuses to agree or disagree with the figures, stating that their calculations employed different methods and profiles.

32. Ms Wong was also asked questions about the source of the DNA sample she was able to lift from the wooden box. Ms Wong’s evidence is that she had used cotton buds to swap both the inside and outside of the box and was able to obtain DNA material from that process. She was however unable to say whether the DNA material was on the outside or inside of the box, or what the nature of the material was. Ms Wong however agreed with counsel that a possible source would be dandruff.

THE DEFENCE CASE

1. The appellant did not avail himself of his right to give evidence. Instead, he called Ms Tsang, his sister, as a witness. Again quoting from the Reasons for Verdict, this is what Ms Tsang said:

“35. Ms Tsang says she is the elder sister of the defendant and gave evidence that the defendant is the youngest of 7 siblings of 3 male and 4 females. Including the defendant, his brothers and the defendant’s uncles and their offspring, there are 15 males in their family tree. Ms Tsang was not cross-examined by the prosecution.”

1. To supplement, we should add that Ms Tsang had given details of the age and whereabouts of her male relatives, some of whom at least were *prima facie* capable of committing the burglary, and were within the jurisdiction at the time of the offence.
2. This revelation, in conjunction with Ms Wong’s earlier concession (see paragraph 6 above), constituted one of two of the lines of defence that the appellant had adopted at trial (see footnote 4). How could the judge be sure that it was not one of the appellant’s male relatives who committed the burglary? That was the question.

*RECALLING THE PROSECUTION EXPERT*

1. As the record shows, Ms Tsang finished giving her evidence at 3.07 pm on the first day of trial. On the following day, after an early adjournment from the previous afternoon, the prosecution applied to recall Ms Wong, their forensic analyst, in order to assist the court with “another calculation to factor in the random match probability taking into account brothers, uncles and cousins”.
2. Although judge and counsel went to some length in their ensuing exchange, we are satisfied that the opening submissions of the prosecution do adequately sum up their position. They go as follows:

“MR MARRAY: Your Honour, in this case the defendant has called one witness, who is the sister of the defendant. The sister of the defendant has gone through a list of male relatives of the defendant, brothers, maternal uncles, paternal uncles and male cousins. Presumably, that evidence has been called because the defence say they could also -- they could have been -- they could have committed this offence as well. So the DNA could have been their DNA.

Now, the first mention in this trial of the defendant having any brothers, uncles or cousins was made when the defence witness gave evidence. And in those circumstances, the prosecution say that the witness should -- the prosecution should ask for the DNA expert to prepare another calculation to factor in the random match probability taking into account brothers, uncles and cousins. That is what the prosecution seeks to do. It is something that only arose for the first time in the defence case.

The defence seem to be running some sort of scientific defence, it seems to me, and without any expert at all. When the witness was cross-examined she was cross-examined loosely about, you know, it could be a different calculation for brothers, uncles, or brothers or other relatives. But the calculation which the defence showed the witness was calculated to a different test, so it’s not particularly helpful.

So your Honour, the prosecution submits it’s in the interests of justice for this witness to make another calculate. Of course, I don't know the calculation -- well, I don't know what the calculation will be myself. It seems to be that the interests of this trial it’s very much in the interests of -- to reach a fair decision and the right decision, that this evidence is being asked to be called. ”

1. Defence counsel resisted the application. She submitted:

“MISS CHEUNG: Yes. Your Honour, the defence submission is that the test of whether the court should allow the prosecution to adduce additional evidence is that whether the matter was arising ex improviso or the necessity for such evidence was obvious to the prosecution. It is the issue that should have been foreseen, whether the issue raised by the defence should have been foreseen, reasonably foreseen by the prosecution.”

1. Having then gone through a number of authorities in detail, counsel returned to the facts of this case:

“The reason I say that is that the prosecution has the burden of proof throughout. The prosecution relies on the DNA sample to prove -- to link the defendant to the case. DNA sample was found on the scene and that sample was matched with the defendant, but that does not -- the process does not stop there.

According to Miss Wong, her evidence, her DNA evidence is that she has to go one further step, namely, by calculating the possibility of other person share the same DNA profile. She did that by way of, if I may say, elimination. What she has done in the report is that she eliminate the possibility of an individual unrelated to the defendant that would share that DNA sample. That’s what she has done. She done that by elimination. She only eliminate Chinese male unrelated to the defendant.

I don't know why it did not occur to her if, by way of elimination, the possibility of a relative of the defendant, sharing the same DNA profile, would be much higher. That possibility, that calculation is essential to the conclusion she reached. She cannot simply eliminate those unrelated Chinese males could not have shared the sample. She should also have eliminated the group that is relevant, namely, the relative of the defendant. She has not done that and she gave no explanation why it was not in her report. If there is anyone should take notice of that, if I may say, flaw, Miss Wong should be the one better than everyone in this court to know the importance of such calculation.

What the prosecution is trying to do is to salvage that mistake, if I may say, the flaw. The evidence given by the defendant’s sister is simply to address the flaw of her in Miss Wong’s report. We simply highlight, look, you should eliminate. You also in your report eliminate the matching probability of the relatives of the defendant in order to make a sensible conclusion that the defendant could have committed it. Your report is not good enough. That’s what the defendant is saying -- what the defence is saying.

On the issue of whether the prosecution should have foreseen such an issue, if I may refer to you another case for reference Ng Chung Fai(?). In fact, the tactic that I employ in challenging the report in such a manner, in challenging the report not containing a matching probability calculation or in the relative was not taken the first time by counsel. In this case, 2012, the same tactic was employed by Mr Duncan Percy, the learned counsel. He adopted the same approach. Now, page 14, now, this is a case of robbery ….

…..

They should learn their lesson after that case, but it seems that in this prosecution their report remains the same, similar to those used in Ng Chun Fai. So the fact that those additional evidence should be adduced is a matter of foresight, not hindsight. You must remember the court system is one of adversarial not inquisitorial. In my submission, the application should not be granted. Your Honour, this is my submission.”

1. In the end, holding that “the prosecution could not have foreseen this line of defence”[[6]](#footnote-6), the judge ruled in favour of recalling Ms Wong, whose further evidence[[7]](#footnote-7) was summarized in the Reasons for Verdict:

“46. Ms Wong was then recalled and her 3rd report [marked Exhibit P13] was read into evidence pursuant to section 65B of the Criminal Procedure Ordinance. It is her evidence that the match probabilities that a relative of the defendant would have the particular combination of DNA types as obtained from the wooden jewel box (Exhibit P1), given the defendant having the matching DNA types, that is to say, the probability that the wooden box sample was from the relatives instead of the defendant, are as follows.

47. From siblings, 1 in 1.81 million; from an uncle or nephew is 1 in 11.0 trillion; and from a first cousin is 1 in 811 trillion.”

*VERDICT*

1. Apropos what is relevant to the present appeal, the following portions of the Reasons for Verdict are instructive. They show the judge’s reasoning in convicting the appellant on the DNA evidence:

“51. According to the learned editors of *Archbold Hong Kong* *2015*, at paragraph 14-11, there are two distinct questions to be asked when dealing with DNA profiling evidence. They are:

(a) *What is the probability that a particular individual would match the DNA profile from the crime sample, given that he is innocent? And*

(b) *What is the probability that an individual is innocent, if he matches the DNA profile from the crime sample?*

52. The learned editors also referred to *R* v *Doheny and Adams* [1997] 1 Cr App R 369, CA, where guidelines were laid down to ensure the proper use of DNA profiling evidence. For our present purpose, I refer to the suggested direction to the jury:

‘ *Members of the jury, if you accept the scientific evidence called by the prosecution this indicates that there are probably only four or five white males in the United Kingdom from whom that semen stain could have come. The defendant is one of them. If that is the position, the decision you have to reach, on all the evidence, is whether you are sure that it was the defendant who left that stain or whether it is possible that it was one of that other small group of men who share the same DNA characteristics*.’

53. I find first of all that I can place full weight on the evidence of Ms Wong the forensic analyst. I find that the defendant’s DNA sample do match that of the DNA sample found on the wooden box, in the manner as expressed in the table at the Appendix of her report (Exhibit P10).

54. In relation to the first question mentioned above, I find that, even after taken into consideration the presence of siblings, the probability that a particular individual would match the DNA profile from the wooden box DNA sample, given that he is innocent, is that of one in 1.81 million. This is a much bigger number then 1 in 11.7 quadrillion, but still represents a very low possibility of the sample being from someone other than the defendant.

55. In relation to the second question, I find first of all that there is no evidence that any of the defendant’s siblings or relatives had the opportunity to come into contact with the wooden box. I find that the wooden box had been in the possession of PW1’s mother for over 20 years and was put inside another box for safe keeping. I find it inherently improbable that the defendant’s DNA might somehow be indirectly left on the wooden box given the circumstances.

……

62. Having directed myself along the line of the suggested direction mentioned above *[namely, the one set out under paragraph 52]*, I find that the answer to the second question is that, given the scientific evidence and circumstances surrounding the case, the defendant is the person who had left the DNA sample on the wooden box and, for the following inferences, he is not innocent.

63. I find that it is an irresistible inference that the defendant was inside the flat when he had direct contact with the wooden box. I find that he was inside the flat as a trespasser. I find it is an irresistible inference that having entered as a trespasser, he intended to steal, and did steal from the flat. I find that it is an irresistible inference that he had stolen the items particularized in the charge.”

*GROUNDS OF APPEAL*

1. The grounds for which leave has been granted for the appellant to argue before the Court are his Ground 1 and Ground 3 (the others, as said, have not been renewed):

*Ground 1* [[8]](#footnote-8)

“ There was a material irregularity at the trial in that the learned judge erred in allowing the prosecution to call rebuttal evidence (namely to recall PW3 to give evidence and to produce further expert report, Exhibit P13, to supplement her earlier expert reports, Exhibits P10 and P11) after the close of case for the defence, whilst the issue upon which the prosecution sought to call rebuttal evidence did not arise *ex improvise*.”

*Ground 3*

“ The learned judge erred in excluding the possibility that the biological substance from which DNA sample extracted that was deposited on Exhibit P1 (which was said by PW3 that it could be dandruff), even if it came from the appellant, could be deposited on Exhibit P1 through an intermediary without the appellant actually came into contact with Exhibit P1 or being at the crime scene, such that the DNA evidence was insufficient to link the appellant to the burglary alleged.”

1. So far as arguments go, the appellant’s submissions on Ground 1 are essentially just a repetition of the points made at first instance. For Ground 3, various scenarios falling short of contamination by procedural breaches are postulated[[9]](#footnote-9). Invariably, they involve the appellant’s skin cells[[10]](#footnote-10) travelling fortuitously onto the burglar, or anyone turning up in the flat after him, and then through such an intermediary, onto Exhibit P1 *via* direct contact or airborne landing. Such scenarios being impossible to rule out, it is equally impossible to convict the appellant on the DNA evidence – or so the appellant would argue.

*DISCUSSION*

*The question of rebuttal*

1. The law on this question is well settled. As stated by the Court of Appeal of England and Wales in *R v Francis* 91 Cr App R 271, at 274:

“The propositions which can be deduced from those authorities are as follows:

(1) The general rule is that the prosecution must call the whole of their evidence before closing their case. The rule has been described as being most salutary.

(2) There are, however, exceptions. The best known exception is that the prosecution may call evidence in rebuttal to deal with matters which have arisen *ex improvise*; see *Pilcher* (1974) 60 Cr App R 1.

(3) The prosecution do not have to foresee every eventuality. They are entitled to make reasonable assumptions; see *Scott* (1984) 79 Cr App R 49.

(4) Another exception to the general rule is where what has been omitted is a mere formality as distinct from a central issue in the case – contrast *Royal v Prescott-Clarke* [1966] 2 All ER 366 with *ex parte Garnier*.

…….

In the light of those and other authorities we would venture to add a seventh proposition to those which we have already listed as follows:

(7) The discretion of the judge to admit evidence after the close of the prosecution case is not confined to the two well established exceptions. There is a wider discretion. We refrain from defining precisely the limit of that discretion since we cannot foresee all the circumstances in which it might fall to be exercised. It is of the essence of any discretion that it should be kept flexible. But lest there be any misunderstanding and lest it be thought we are opening the door too wide, we would echo what was said by Edmund-Davies LJ in the *Doran* case at p 437 that the discretion is one which should only be exercised outside the two established exceptions on the rarest of occasions.”

1. Accepting that there was no technical omission, and that the present case is not one in which the wider discretion is applicable, we are nevertheless attracted to the submission that this is an instance where the prosecution was faced with a matter that had arisen *ex improviso*.
2. Taking the cross-examination of Ms Wong, the forensic analyst, as a starting point[[11]](#footnote-11), although she was questioned at length, and was confronted with assertions from presumably learned publications, the attack on her evidence had remained throughout at large. Without more, the attack would be, and was quite rightly understood as (a) a general challenge to the validity of Ms Wong’s methodology, and/or (b) a general attempt to get Ms Wong to agree to some unexplained statistics that could dramatically tip the scales in favour of the appellant (1 in 12,379, or 1 in 10,000[[12]](#footnote-12), as opposed to 1 in 11.7 quadrillion).
3. Given the soon to be summoned evidence of Ms Tsang, the sister – she testified after Ms Wong after just a short adjournment[[13]](#footnote-13), we are in fact inclined to question whether defence counsel was not acting in breach of the rule in *Browne v Dunn*; a rule which has been helpfully explained by McMahon J in *HKSAR v Tsui Sin Yee* [2010] 1 HKLRD 876 at 886:

“44. The purpose of the rule established by *Browne v Dunn* is to prevent a party; and the rule as a matter of practicality is directed usually at the party whose evidence is given last, from embarking upon a presentation of their case in evidence which is novel and upon which, if it had been put to them, the other parties’ witnesses would have been able to provide relevant evidence ….”

1. The point, we should add, was brought squarely into the frame when Ms Wong met counsel with the following answers[[14]](#footnote-14). Nevertheless, as one will see, the latter had remained decidedly enigmatic as to what would be the defence case:

“ Q. In any event, your report have no result -- have not taken into account if the crime was committed by a relative of the suspect, of the defendant, is that correct?

A. In normal case we will not calculate for the sibling, but if that is necessary, we will provide the value for you.

Q. But that’s not the case. That’s not the case in your report.

A. But that is not the case because there is no any information to tell us it’s related, that is committed by the relative of the defendant.

Q. I have another journal, ‘Statistical analysis to support forensic interpretation for a new ten-locus STR profiling system.’ It’s a legal medical journal. Have you read this journal?

……”

1. Another point of admittedly less importance is that there is no mention of any extended family in the appellant’s antecedent statement, which was available to the prosecution. It was not even said that he had brothers. But it does go to show the state of perhaps understandable lack of knowledge on the part of the prosecution.
2. It is unhelpful to say that common sense dictates that everyone has relatives[[15]](#footnote-15). It only goes to underscore the lack of understanding of what is involved in the situation under consideration. In determining the cogency of the defence in question, it is not enough just to look at how the match probabilities have shifted, but the number, age, background and physical state of all the defendant’s relatives should be taken into account to see if some or all of them are at least *prima facie* capable of being the real perpetrator. It follows that, in the absence of any indication of the need to do so, it would neither be fair nor realistic to expect the prosecution to volunteer in advance the kind of statistical evidence being discussed. Without any evidence in respect of the relatives, match probabilities that take into account the existence of relatives are of very limited value to the tribunal of fact.
3. Likewise, it cannot be said that because a certain point has succeeded in a certain court at first instance, the prosecuting authorities as a whole have been put on notice to anticipate the same submission being made in all subsequent cases[[16]](#footnote-16). The correctness or otherwise of the first instance decision aside, this area is a fact sensitive area which does not lend itself to generalization.
4. We are satisified that Ground 1 must fail.

*The question of indirect transfer*

1. This question can be dealt with shortly. The scenarios proffered by the appellant are self-evidently speculative. They fly in the face of the fact that Exhibit P1 was the property of someone who did not reside ordinarily in Hong Kong, and was an item which had been put away for safekeeping in the protection of a container (the plastic box). The suggestion that the appellant’s DNA may have landed on Exhibit P1 through two chance transfers, once from the appellant and the other time, the intermediary, and only because there was a small window of opportunity made available by the burglary, is absurdly speculative.
2. The judgments of the Court of Appeal of England and Wales[[17]](#footnote-17) relied on by the appellant are of no assistance because, unlike the present case, they pertain to situations where a moveable item containing the defendant’s DNA was left behind at the crime scene by the offender, but the prosecution was unable to disprove the defendant’s denial of owning and knowing why his DNA was on the item. Since DNA samples cannot be dated (or it may otherwise be shown that the item was in fact stained by the defendant at the time of the offence), it was held in those cases that the defendant’s presence at the crime scene was not established.
3. Interestingly, however, in *R v Sampson and Kelly* [2014] EWCA Crim 1968, a case concerning the possession of firearms, in distinguishing the line of decisions just mentioned, the Court of Appeal of England and Wales had this to say:

“40. …. we consider that these decisions are distinguishable. The present case differs from all these cases in that the presence of DNA is not relied on as evidence of the presence of the defendant at a particular place at a particular time; rather the essence of the offence is possession of the article. So there is a much closer connection between the DNA evidence and the commission of the offence. The presence of DNA on the article, on the muzzle of a gun in this case, is capable of being evidence of possession of that article ….”

Considering that Exhibit P1 was not an item extraneous to the burgled premises, but was an item situated within them, we find the above remarks to be, *mutatis mutandis*, applicable to our situation.

1. Ground 3 must also fail.

*The overall safety of the conviction*

1. In the course of oral argument, we have made several observations. The first was that the Random Match Probability (“RMP”), represented in this case by the figure “1 in 11.7 quadrillion”, is an altogether different concept from that which gave rise to the probabilities “1 in 1.81 million, 1 in 11 trillion and 1 in 811 trillion”.
2. That this is so is clear from Ms Wong’s reports for, at the bottom of the table annexed to Exhibit P10, it is stated:

“RMP refers to the approximate combined random match probability of the particular combination of DNA types that a randomly selected person in the local Chinese population unrelated to the possible donor as stated in the ‘possible source’ column above *[namely the appellant]* would have the matching DNA types found.”

The emphasis is on the words “randomly selected person unrelated to the possible donor”.

1. As for the three numerically expressed probabilities, *re* full sibling, uncle/nephew and first cousin, respectively, it is explained under the “introduction” section in Exhibit P13, that:

“The purpose of this statement is to evaluate the match probabilities that a particular relative of the possible donor as stated in the ‘possible source’ column in the Appendix of my previous statement *[namely the appellant]* …. would possess the incriminating DNA profile.”

The emphasis is on the words “relative of the possible donor”.

1. Our second observation was that, whilst under cross- examination, and once when the judge was asking her questions, Ms Wong had failed to make clear the distinction between the RMP and relative-based probabilities. We shall, however, be slow to be too critical of the expert. As the transcripts show, such instances of compromise of definition, three by our count[[18]](#footnote-18), were at least partly committed in the course of answering leading questions.
2. For an illustration of how it happened, the two instances that took place in cross-examination, one following the other in close sequence, are reproduced below[[19]](#footnote-19):

“ Q. Would you agree with me that if the donor of the DNA sample found on the jewel box was committed -- the donor was a relative of the defendant then the random -- the RMP used, the match probability calculation used by you would be quite irrelevant? It would be grossly overestimated probability, would you agree with me?

A. I can only say if the crime is committed by the relative of the donor then *the RMP value will be different*. We have another calculation for that, for the sibling, for the cousin, for the nephew, for the father, mother, we have different calculation equation.

Q. But you have not done that calculation in your report.

A. No, because it’s too many. We can't do all that[[20]](#footnote-20).

Q. Okay, so if relative of the suspect, of the burglar, had committed the crime and if that factor -- if that feature was factored into your calculation, *your RMP calculation, the calculation would be completely different*.

A. *Yes, the value should be different*.”

(emphasis added)

1. This leads us to our third observation, which was that the judge seems never to have been disabused of Ms Wong’s mistake. There are other examples, but what the judge said in paragraph 54 of his Reasons for Verdict (see under paragraph 15 above) makes that obvious.
2. Continuing with that paragraph, we would add that the two questions that the judge took from *Archbold Hong Kong 2015*[[21]](#footnote-21) (read paragraph 54 in conjunction with paragraphs 51 and 55 of the Reasons for Verdict) are not questions intended for the tribunal of fact. They are, just as the booksays, “two distinct questions”; and their answers, we venture to suggest, must be in the form of numerical probabilities, not some scriptural finding of fact.
3. Finally, regarding the *Doheny and Adams* direction (see paragraph 52 of the Reasons for Verdict), it is appropriate to so direct a jury only where DNA evidence is presented by way of a Random Occurrence Ratio (“ROR”)[[22]](#footnote-22). This is how it was done when the older English cases of some twenty years ago were reported and, being expressed in an actual number of men or women (see the direction itself), the ROR may well be different in concept and computation than the RMP and relative-based probabilities.
4. The question is: given the judge’s obviously less than perfect grasp of some of the nicer points in the DNA evidence, is the conviction of the appellant safe? Our answer is in the affirmative because, when cut to the chase, the judge was really saying (a) the probability of the appellant not being the donor of the DNA on Exhibit P1 is exceedingly low (*vide* paragraph 54, Reasons for Verdict) and (b) given how and for how long Exhibit P1 had been put away for safekeeping, the suggestion of an indirect and fortuitous transfer of the appellant’s DNA onto its surface is fanciful and speculative (*vide* paragraph 55, Reasons for Verdict). He was correct on both counts.

*Postscript*

1. It has become apparent in this appeal that such notions as the Random Occurrence Ratio, Random Match Probability and what we have loosely referred to as relative-based probabilities were as unfamiliar to counsel as they were to the judge. We trust that this is not a reflection of the general situation, but invite the prosecuting authorities to consider what steps might be taken to ensure that the courts are provided with adequate assistance in this area.

*Disposal*

1. The appellant’s appeal against conviction is dismissed.

(Michael Lunn) (Derek Pang) (E Toh)

Vice-President Justice of Appeal Judge of the Court of

First Instance

Miss Cheung Wai-ngan, Karen, instructed by Director of Legal Aid, for the appellant

Ms Ko Po-chui, Catherine, SADPP(Ag.), of Department of Justice, for the respondent

1. See footnote 4 below. [↑](#footnote-ref-1)
2. Ms Wong’s sister lived in Canada, and was only visiting: Appeal Bundle, page 31P–T. [↑](#footnote-ref-2)
3. Ms Wong’s mother also lived in Canada, and was not in Hong Kong at the time of the offence: Appeal Bundle, pages 31T–32H. [↑](#footnote-ref-3)
4. Both Constable Ng and the third prosecution witness (see later) were cross-examined on their handling and transmission of Exhibit P1 for possible exposure to contamination. Their answers formed the basis of one of the lines of defence of the appellant at trial and, upon his conviction, the subject matter of a number of his original grounds of appeal. Those grounds having been denied leave by the Single Judge, and given that there was no attempt to renew them, it is unnecessary to set out that part of the prosecution evidence. For the appellant’s other line of defence, see paragraph 9 of this judgment. [↑](#footnote-ref-4)
5. This is a matter of admitted fact, although the exact circumstances in which the appellant had provided his DNA samples were not disclosed at trial. It was also an admitted fact that the appellant was in Hong Kong at the time of the burglary. See Appeal Bundle, page 9. [↑](#footnote-ref-5)
6. See Appeal Bundle, pages 72A–73M. A written version of the judge’s ruling also appears in the Reasons for Verdict, under the section “Rebuttal Evidence”. [↑](#footnote-ref-6)
7. That evidence was given some six weeks later on 27 April 2015. [↑](#footnote-ref-7)
8. These are taken verbatim from the Perfected Grounds of Appeal. [↑](#footnote-ref-8)
9. As pointed out in footnote 4, contamination by procedural breaches was one of the lines of defence at trial, now abandoned as a ground or grounds of appeal. [↑](#footnote-ref-9)
10. Dandruff is a kind of skin cell according to Ms Wong, the prosecution expert. [↑](#footnote-ref-10)
11. That is, the cross-examination before she was recalled; see Appeal Bundle pages 46–52. [↑](#footnote-ref-11)
12. See paragraph 31 of the Reasons for Verdict under paragraph 6 of this judgment; also, pages 51I and 52N of the Appeal Bundle. [↑](#footnote-ref-12)
13. Appeal Bundle, page 56. [↑](#footnote-ref-13)
14. Appeal Bundle, pages 51T–52E. See also footnote 20 below. [↑](#footnote-ref-14)
15. This is one of the appellant’s major arguments. [↑](#footnote-ref-15)
16. This is another one of the appellant’s major arguments, citing a District Court decision. [↑](#footnote-ref-16)
17. See, for example, *R v Grant* [2008] EWCA Crim 1890 and *R v Ogden* [2013] EWCA Crim 1294. [↑](#footnote-ref-17)
18. Appeal Bundle, pages 49F–G, 49I–K and 55E–G. All these instances took place during Ms Wong’s first cross-examination, before she was recalled. [↑](#footnote-ref-18)
19. Appeal Bundle, page 49D–K. [↑](#footnote-ref-19)
20. This is also relevant to the *Browne v Dunn* point, as to which see paragraphs 21 and 22 of this judgment above. [↑](#footnote-ref-20)
21. The correct reference is paragraph 14-44, not 14-11. [↑](#footnote-ref-21)
22. See paragraph 14-45 of *Archbold Hong Kong 2105*. At point (13), in discussing the guidelines that may be derived from *R v Doheny and Adams* [1997] 1 Cr App R 369, it is stated: “In relation to the random occurrence ratio, a direction along the following lines may be appropriate ….” [↑](#footnote-ref-22)