[2012] JMCA Crim 9

JAMAICA

IN THE COURT OF APPEAL

SUPREME COURT CRIMINAL APPEAL NO 126/2008

BEFORE: THE HON MRS JUSTICE HARRIS P (Ag)
THE HON MISS JUSTICE PHILLIPS JA
THE HON MR JUSTICE BROOKS JA

GARLAND MARRIOTT v R

Leroy Equiano for the applicant

Miss Paula Llewellyn QC, Director of Public Prosecutions and Mrs Paula-Rosanne Archer-Hall for the Crown

16, 18, 19 January and 16 March 2012

BROOKS JA

[1] Science plays an ever increasing role in the judicial process. This burgeoning phenomenon requires trial judges to acquaint themselves with the basics of the advances in technology so as to be able to assist juries in determining the issues arising therefrom. This requirement manifested itself in the instant case, where modern science played a prominent role throughout.

[2] There was no eyewitness to the double killing that occurred in Fyffe's Pen in the parish of Saint Elizabeth between 14 and 15 June 2003. The Crown relied almost

exclusively on Deoxyribonucleic Acid (DNA) evidence in the prosecution of the applicant, Mr Garland Marriott, for two counts of murder arising from those killings.

[3] The applicant was convicted on those charges in the Home Circuit Court on 16 October 2008 and sentenced on 7 November 2008 to two concurrent sentences of imprisonment for life. He was ordered to serve 25 years before becoming eligible for parole.

[4] The issues arising from his application for leave to appeal against his conviction turn, in large measure, on the reliability of the DNA evidence and the manner in which the learned trial judge directed the jury in relation to that evidence. A single judge of this court refused the applicant leave to appeal but he has renewed his application before the full court.

[5] An outline of the background facts will assist the analysis of those issues.

The background

[6] Mr Almando Warren and his common law wife Clover Robinson were found dead in their house at the location mentioned above. The cause of death, in the case of Mr Warren, was strangulation, most likely by a length of electrical cord. The cord had been found wrapped about his neck. In Ms Robinson's case, it was due to asphyxia due to haemopneumothorax, resulting from stab wounds to the chest. Each body had injuries to the head and was lying in a pool of blood, presumably belonging to that victim.

[7] The police and the forensic officers, who processed the scene after the discovery, removed and secured a number of items from Mr Warren's premises. One item, a shirt, was taken from the street in front of the house. Subsequent investigations led the police to a location in Saint Catherine where they secured other bits of clothing. Of particular interest, with the majority of these items, was the blood which was found on each. Samples of blood were also taken from sites on the floor and walls of the house as well as on fibres found at various locations in the house.

[8] The forensic scientists, who processed these items, identified, from DNA analysis, that the blood on one or other of them, belonged, on the Crown's case, to three different people; Mr Warren, Ms Robinson and one other individual, who, for over a year thereafter, remained unidentified. It was only after the applicant was taken into custody that the scientific process was revived, in an attempt to find a DNA match for that of the unidentified blood.

[9] The applicant's link to Mr Warren's house, on the Crown's case, was that he had worked on it carrying out electrical installations. This installation was a part of a larger construction project at the premises. Mr Maron Morrell, the person who was in charge of paying for the construction, testifed that he had seen the applicant at the premises on a day in April 2003. He said the applicant was involved in a verbal altercation over money, with the contractor who was supervising the construction. Mr Morrell testified that he (Morrell) brought the project to a premature end in the first week of June 2003. He, however, did not see the applicant at the premises, after that occasion in April.

The applicant did not feature again, in the Crown's case, until he had been taken into custody by the police in November 2004.

[10] On 2 November 2004, Detective Inspector Rachel Russell, who was in charge of the investigation, interviewed the applicant concerning these killings. During the interview, the applicant offered to give samples of his blood, in order to "clear his name".

[11] The samples were duly taken by a doctor. At the trial, it was the Crown's case that there was a high probability of a match between the sample of blood taken from the applicant and the previously unidentified blood. The applicant was, thereafter, arrested and charged for the killings.

[12] At the trial, issues arose concerning the chain of custody of the sample of blood taken from the applicant as well as the reliability of the DNA evidence as given by the forensic expert.

The grounds of appeal

[13] Mr Equiano, appearing for the applicant, argued, with permission, three grounds of appeal:

> "1. The Learned Trial Judge erred in law by failing to accede to the submission of no case to answer made on behalf of the Applicant.
>
> 2. Having allowed the case to go to the jury the Learned Trial Judge failed to give adequate direction and or assistance to the jury on how to evaluate the evidence

adduced in respect of item/exhibit marked X which was pivotal to both the Crown and the Defendant.

3. The Learned Trial Judge [sic] directions to the jury on how to approach and [use] the statistical evidence in the case was [sic] grossly inadequate and misleading."

Ground One: The Learned Trial Judge's ruling on the submission of no case to answer.

[14] Mr Equiano submitted that the evidence adduced by the Crown was not conclusive enough for an inference to be drawn that the blood, tested as being that of the applicant, was actually his. The bases for this submission were twofold. Firstly, there was a gap in the evidence concerning the chain of custody of the sample of blood taken from the applicant. Secondly, there were inconsistencies and omissions in the evidence concerning the identification of the sample.

[15] The aspect of the gap in the chain of custody centered on the fact that an envelope, said to have been containing the two tubes or vials, containing the sample, was delivered by a Constable Chaplain Reid to the analyst at the forensic laboratory. Mrs Sherron Brydson was the forensic analyst who first tested the sample of blood contained in the tubes. Her evidence, in examination in chief, was that she received the sample from Constable Chaplain Reid. In cross-examination she agreed that, in fact, she had received the sample from a Ms Hilary Mullings, who was an employee of the forensic laboratory. Neither Ms Mullings, nor anyone else, gave evidence concerning her custody of the sample.

[16] In his oral submissions, Mr Equiano argued that there were two unanswered questions in the evidence which indicated breaks in the chain of custody. The first question was, "who recieved the item from Constable Chaplain Reid" at the forensic laboratory and the second was, "who did Ms Mullings recieve the envelope marked "X" from". On Mr Equiano's submission, even if those questions had been answered, the evidence concerning the identity of the sample still remained in disarray; a state that could not be cured after the Crown had closed its case.

[17] The issue of the identity of the sample emanated from a number of points in the evidence. These may be best understood if tabulated:

1. Constable Vaughn Reid, who witnessed the doctor taking the sample from the applicant, testified that he saw the doctor write something on the tubes containing the blood drawn from the applicant. The constable could not, however, recall what had been written.

2. Constable Vaughn Reid delivered the tubes, in an envelope, to Detective Inspector Russell. Detective Inspector Russell testified that she subsequently placed the tubes in a different envelope, which she sealed and labelled "X". She went on to say that she handed the envelope, marked "X", to Constable Chaplain Reid for delivery to the forensic laboratory.

3. Constable Chaplain Reid's evidence is that he received from Detective Inspector Russell an envelope marked "Garland Marriott", in Detective Inspector Russell's handwriting. His evidence, as mentioned before, was that he delivered it to the analyst at the forensic laboratory. He testified that he got a reciept for the item and that he delivered that receipt to Detective Inspector Russell. The receipt was not put in evidence and its contents were not revealed.

4. Mrs Brydson's evidence was that the envelope which she received from Ms Mullings was marked "X". She also testified, however, that the envelope marked "X" contained a "sample of blood allegedly taken from Garland" (page 800 of the transcript).

There was no issue in respect of coincidence of the dates and times of the various deliveries and receipts. Those details may therefore be omitted.

[18] Mr Equiano submitted that Mrs Brydson had been, consistently, very meticulous in giving evidence concerning details of the identification of the items which she had received for testing. On his submission, her evidence that the envelope marked "X" contained two tubes of blood which comprised the sample, without more, should be taken to mean that there was no other means of identification, including labelling, on these tubes. He argued that "the inference to be drawn is that the tubes were untagged and unmarked".

[19] Learned counsel concluded that "[t]he jury should not be asked to infer that it is the same tubes of blood taken from the applicant that ended up in the hands of Mrs Brydson and tested for DNA". When asked by this court how he explained Mrs Brydson's reference to the "sample of blood allegedly taken from Garland", Mr Equiano argued that Mrs Brydson could have got the name from any other aspect of her handling of the case

[20] Learned counsel relied on the well known cases of **R v Galbraith** [1981] 73 Cr. App. R. 124; [1981] 1 WLR 1039; [1981] 2 All ER 1060 and **R v Shippey** [1988] Crim.

L.R. 767 in support of his submissions concerning the law governing decisions on submissions of 'no case to answer'.

[21] We cannot agree with Mr Equiano on this ground. In our view, it cannot be said that a jury, properly directed, could not properly convict on the evidence placed before it in this case, particularly in respect of the matters the subject of this complaint. It should firstly be said, and Mr Equiano readily accepted it as being so, that not every break in the chain of custody will be fatal to the Crown's case.

[22] On this point, the learned Director of Public Prosecutions, Miss Llewellyn QC, brought to our attention the cases of **Grazette v R** [2009] CCJ 2 (AJ) (delivered 3 April 2009), **Hodge v R** HCRAP 2009/001 (delivered 10 November 2010) and **Francis v R** [2010] JMCA Crim 68 (delivered 22 October 2010). In all of those cases, breaks in the chain of custody were held not to be fatal to the prosecution's case. The learned director quoted, as part of her submissions, from the judgment of Harris JA given in **Francis**. In delivering the judgment of the court, the learned judge of appeal said that the issue of the chain of custody was a question for the tribunal of fact to decide. She said at paragraph [20] thereof:

> "We find no merit in [the applicant's] attack on the transmission of the blood sample or his complaint as to its integrity. The issues as to the chain of the custody of the blood sample or the integrity of the blood sample are questions of fact. Questions of fact are matters exclusively within the province of the tribunal of facts and this court will not interfere with a trial judge's decision on questions of fact unless the judge was palpably wrong..."

[23] It is our view that, as a general proposition, this is clearly correct. This does not, however, preclude a case of no case to answer, in respect of the chain of custody, being entitled to succeed, where the evidence in that regard, raises "a reasonable doubt about the exhibit's integrity" (see paragraph [15] of **Hodge**).

[24] In the instant case, we are of the view that there was sufficient evidence for the jury to deliberate upon. Firstly, it would be matters for inference, whether the envelope marked "X", said to have been delivered by Inspector Russell to Constable Chaplain Reid, was the same envelope marked with the name "Garland Marriott", which Constable Chaplain Reid said that he received from the Inspector on the same date. Secondly, as in **Grazette**, the fact that one of the persons who handled the exhibit, did not testify, was not a gap that could not be closed by an inference which the jury could properly draw. This is especially so, bearing in mind that the missing link was an employee of the forensic laboratory. Finally, the question of the identity of the sample in the envelope marked "X" was one that could have been resolved by the jury. This is so because of the evidence that the tubes, containing the sample, were labelled by the doctor who drew the applicant's blood and the testimony of Mrs Brydson that the envelope marked "X" contained tubes with a "sample of blood allegedly taken from Garland".

[25] In our view, this ground should fail.

Ground Two: The Learned Trial Judge's directions on evaluating the evidence adduced in respect of item/exhibit X.

[26] Mr Equiano submitted that although this was not a case of visual identification, the evidence raised issues which required an analysis which, like that required in visual identification, pointed out to the jury the specific weaknesses in the evidence presented by the Crown. He submitted that the learned trial judge did not specifically identify the weaknesses in the evidence concerning the chain of custody and the reliability of the sample, so as to properly assist the jury in deciding those crucial issues in the case.

[27] Learned counsel emphasised that there were two major issues concerning the envelope marked "X" and its contents. Firstly, there were two breaks in the continuity of the chain of custody of the envelope. On learned counsel's submission one break arose from the differences arising from the testimony of Detective Inspector Russell and that of Constable Chaplain Reid concerning the envelope that the one handed over to the other. The second break centred on the missing witness, Ms Mullings.

[28] According to Mr Equiano those breaks were not the real issue. On his submission, the real issue was the contents of envelope "X". As was mentioned above, the weakness in this area was the absence of any specific identification of the tubes of blood which Mrs Brydson took from envelope "X". He argued that this was a weakness which should have been highlighted to the jury. The obligation was especially important, said Mr Equiano, because the trial was a long one, lasting four weeks, and so it "would be unfair to expect the jury to remember all the variances and discrepancies".

[29] Mr Equiano concluded, in his oral submissions, that it was "likely that had these been highlighted to the jury, the jury would probably not have accepted the Crown's case". He relied on the principles set out in **R v Turnbull** [1976] 3 All ER 549, in support of his submissions.

[30] In responding to Mr Equiano's submissions, the learned director accepted that the learned trial judge did not use the term "weakness" in respect of the issues relating to the envelope marked "X" and its contents. She argued however, that there was no duty to use the term in this case. On her submission, this was not a case requiring a "Turnbull type" direction. The learned director submitted that the trial concerned circumstantial evidence and that the learned trial judge gave the jury comprehensive directions in that regard.

[31] She accepted that the learned trial judge did not address the discrepancy between Inspector Russell's evidence concerning an envelope marked "X" and Constable Chaplain Reid's testimony about an envelope marked "Garland Marriott". The learned director also conceded that the learned trial judge dealt with the issue of the discrepancy or variance only in a general way in his accurate but general, directions to the jury concerning discrepancies and inconsistencies. She argued, however, that having given those directions, there was no requirement to address every single item of discrepancy. This was especially so, she argued, since the thrust of the defence was that a number of the items of clothing, found at Mr Warren's house, which clothing the

applicant admitted were his, had been placed there by someone else so as to throw suspicion on him.

[32] In considering this ground, it is important to note that, in his testimony, the applicant accepted that some items of clothing, said to have been found with blood on them, both at Mr Warren's house and at other premises near to that house, were in fact his. He testified that he had been ordinarily resident in Saint Andrew but that he had worked as an electrician at Mr Warren's house in April 2003. He had therefore taken extra clothing with him to Saint Elizabeth. His evidence was that he had left that clothing at that other premises, mentioned above, at which he had slept during the time he was engaged in doing the job at Mr Warren's house.

[33] He testified that after doing about two weeks of work at the house, he was paid for a part of the job. He said that there was some dispute as to the amount that he should have been paid, but that he was eventually paid and he left the work site, fully expecting to return to the job after spending a short time at his home. He said that he went to his home in Saint Andrew, on that understanding. It was his understanding that the job was still his. He testified that he subsequently heard something about the construction and that the contractor, who had originally taken him to the work site, did not return for him. On his account, he did not return to Saint Elizabeth prior to his being arrested, but that those events explained the fact that his clothes were found in that parish. He testified that he did not leave any clothes at the Saint Catherine

address, at which he had temporarily stayed just prior to getting the job at Mr Warren's.

[34] That outline of the applicant's testimony was given so as to understand the submission of the learned director that the thrust of the defence, at the trial, was not that there were problems with the scientific process but that the evidence given to the scientists had been "planted". It is in that context, submitted the learned director, that the learned trial judge would have crafted his summation, and in fact did so, stressing that aspect of the defence.

[35] It is accepted that the learned trial judge gave adequate and fair directions concerning the issue of whether the applicant's clothing had been placed on the scene by someone other than him. The difficulty with the learned director's submission, however, is that, from as early as the no case submission, and perhaps earlier, the matter of the chain of custody and the labelling of the envelope marked "X" and its contents, had also been placed in issue. Indeed, the learned trial judge, in his summation, told the jury that "this envelope ["X"] and the two tubes of blood is [sic] most important to this case" (page 1315 of the transcript). After directing the jury of the importance of understanding the system for handling exhibits at the forensic laboratory, the learned judge also told the jury:

> "You have to look at the evidence as to the initial recovery of these exhibits and their handling on their way to the lab to ensure, from the evidence, that the same thing that was received was the same thing which was recovered at the scene or elsewhere." (Page 1344 of the transcript.)

The jury would, therefore, have been aware that the issue of the integrity of the exhibits, especially envelope "X", would have been a live issue for their consideration.

[36] We would be inclined to agree with the learned director that the instant case turned more on circumstantial evidence than it did on identification. That was the view of this court in **Howard Jones v R** [2010] JMCA Crim 18 (delivered 23 April 2010), a similar type of case where a man was found dead. There was no eyewitness to the killing in that case. Smith JA said, at paragraph [5] of the judgment of the court, "[t]he case for the prosecution is based on circumstantial and DNA evidence". Based on that position, the evidence in the instant case did not require a "Turnbull-type" approach by the learned trial judge. That would not, however, excuse the learned trial judge, in giving a fair outline of the case for the defence, from pointing out to the jury an aspect of the prosecution's case which was in issue and was being specifically challenged by the defence.

[37] This case relied almost exclusively on the scientific evidence amassed by the prosecution. It was critical for the learned trial judge to explain to the jury their need to be sure of the integrity of the material used in the scientific process, the integrity of the methods used to collect, store, transmit and test that material and the reliability of the results of the testing. The learned trial judge, as mentioned above, did identify these issues. It is now necessary to analyse whether he gave adequate directions on the points.

[38] Mr Equiano is correct when he stated that the learned trial judge did not specifically bring to the attention of the jury the weaknesses in relation to the identification of the contents of envelope "X". The learned trial judge however did direct the jury concerning their need to be sure that the sample tested consisted of the blood taken from the applicant. Page 1332 of the transcript shows him to have said:

> "Detective Corporal Chaplain Reid was also a witness who took articles to the Forensic Lab, and what was this article in, this was an envelope, which he said he received on the third of November. Now, remember I said we need to trace this sample of blood, because Inspector Russell said it is this sample of blood which is in the envelope marked 'X' that he [sic] gave to Detective Corporal Chaplain Reid to take to the Forensic Lab. He said he went to the Forensic Lab and he handed it over and he received a receipt, and this receipt he handed over to Detective Inspector Russell."

[39] In respect of the integrity of the system at the laboratory the learned trial judge said, at page 1344:

> "It is most important Mr. Foreman and members of the jury, that you understand what system was said to have been in place and for you to make your determination as to how reliable, from her evidence, that you accept that system to be."

[40] Other excerpts show the stress given to this aspect of the evidence in the summation. At pages 1350 to 1353 of the transcript the learned trial judge dealt specifically with the evidence concerning envelope "X". He outlined, at page 1352, the contending views of that evidence:

> "Now counsel for the defence, is saying how can it be said that this sample was the same one that was taken from the accused man. The prosecution is asking that although Miss

> Mullings had not given evidence, the prosecution is asking you to draw the inference that it must have been the same because there is only one entry of an envelope marked 'X', and you would have noticed Mr. Foreman and members of the jury, that all these packages, and all these envelopes were given alphabetical labels, and you would have noticed perhaps that these labels came in order of how these things were recovered." (Emphasis supplied)

[41] At page 1394 the learned judge made it clear what the jury's task was in relation to this evidence. He said:

> "The other samples which the prosecution is asking you to take into consideration, came from envelope 'X' and that was the sample of blood which was allegedly taken from the accused man.
> Remember the challenge by the defence as to whether or not, what was sent to Mr. Beecher [the DNA scientist] was a part of the sampling of blood. The prosecution is asking you to say it is the same, based on the evidence which had been presented to you. You have to look at the evidence and see what you accept, that what Mr. Beecher examined was the sample of blood which was allegedly taken from envelope 'X', which was infact [sic] samples taken from this accused man." (Emphasis supplied)

He closely followed those comments with the following:

> "…if you accept all the evidence so far, in relation to talking to you, Mr. Foreman and members of the jury, it is open to you to say that these three profiles from these blood samples were from the two deceased persons and from...Garland Marriott." (Page 1395 of the transcript.)

and also:

> "Now the real question is, if you accept all of that so far in relation to sample 'X', and where it was found cause Mr. Beecher gave evidence that sample 'X' had a profile…he said he found the same profile on DNA 1 and 2 [some of the clothing found at the scene, at the house where the

> applicant stayed and at the location in Saint Catherine]" (Page 1396 of the transcript.)

At page 1397 of the transcript the learned trial judge again stressed the requirement for the jury to be satisfied on this aspect of the evidence. He said:

> "Now, Mr. Foreman and members of the jury, in order for this [profile evidence] to be of any use to you, you will have to find that the collection and the handling and the examination, were done in a manner which would eliminate contamination of these profiles, so you will have to look at the evidence as it relates to the collection of these…." (Pages 1397- 1398 of the transcript.)

[42] In addressing the matter of the evidence having been "manufactured", the learned trial judge also made it clear to the jury that they had to be sure of the integrity of the blood said to have been taken from the clothing. After explaining the dispute by the defence of the alleged presence of the appliant's clothing at Mr Warren's house and the premises in Saint Catherine, the learned trial judge said (at page 1403 of the record):

> "And please remember, Mr. Foreman and members of the jury, it is not for the defence to explain how blood came on these shirts, the defence has no such burden, it is the Prosecution that has to satisfy you that this blood came on these shirts, that it came from the accused man. <u>And then the Prosecution has to go further, the Prosecution has to satisfy you to the extent that you feel sure that the blood came on these shirts at the time the murders were being committed</u>." (Emphasis supplied)

[43] We note that, notwithstanding the learned trial judge's failure to give a specific direction concerning the absence of evidence as to the labelling on the tubes of blood in

envelope "X", he nonetheless made it clear that the jury had to be sure of the integrity of the sample of blood in respect of its collection, its transmission and its being tested. In addition, he made it clear that they had to be sure about the integrity of the material against which the sample was tested. In our view, the prosecution's failure to get into the record (and we make it clear that we did not see the exhibits in order to see the labelling), evidence of the full labelling of the exhibits, posed challenges for the learned trial judge and the jury but we find that the directions by the learned trial judge were sufficient to overcome those challenges. In our view, this ground should also fail.

Ground Three: The Learned Trial Judge's directions on the statistical evidence in the case.

[44] Mr Equiano, in respect of this ground, criticised the reluctance of the DNA expert Mr Beecher to break down his evidence concerning the random probability match of the profile of the blood, said to have been found on the applicant's clothes, so that it could be looked at in the context of Jamaica's population. Learned counsel argued that the learned trial judge also failed to assist the jury when he did not seek to make the evidence relevant to the Jamaican context.

[45] Learned counsel relied on the guidance given by their Lordships in the English case of **Doheny and Adams** [1997] 1 Cr App R 369 at page 375:

> "When the judge comes to sum-up, the jury are likely to need careful directions in respect of any issues of expert evidence and guidance to dispel any obfuscation that may have been engendered in relation to areas of expert evidence where no real issue exists. The judge should explain to the jury the relevance of the random occurrence ratio in arriving at their verdict and draw attention to the extraneous evidence which

> provides the context which gives that ratio its significance, and that which conflicts with the conclusion that the defendant was responsible for the crime stain. Insofar as the random occurrence ratio is concerned, a direction along these lines may be appropriate, although any direction must always be tailored to the facts of the particular case:
>
> > "Members of the jury, if you accept the scientific evidence called by the Crown, 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."" (Emphasis supplied)

On Mr Equiano's submission, the evidence and the summation ought to have been tailored to account for Jamaica's population of approximately three million persons.

[46] In his evidence, the DNA expert, Mr Beecher, testified that the probability of finding a match to the profile of blood found in samples taken from the house (not belonging to either Mr Warren or Ms Robinson) was 5.1 in 100,000,000, or about 1 in 20,000,000. Mr Beecher, at page 905 of the transcript, spoke to the probability ratio. He said:

> "The particular ratio, random probability as it is, it's indicating the probability of finding another person in the population with that same DNA profile."

He went on to explain that "[i]t could be an extended population even though the statistics are based on Jamaican population data, its [sic] extended to a worldwide population etc."

[47] The learned trial judge faithfully brought the relevant evidence to the attention of the jury. After explaining the process, described by Mr Beecher, the learned judge said:

> "...but the one that might be more important to you in this particular case, Mr. Foreman and members of the jury, is the statistical ratios, which we call, the random probability match, or you heard it mentioned to as random occurrence ratio. And in relation to the sample which he said he take [sic] from this accused man to find persons with that profile, it would be, I think he said, five hundred million. What it means therefore, if you accept this based on his evidence, is that for every hundred million persons, there would be about five who have the same DNA profile." (Page 1401 of the transcript.)

[48] In his written submissions, which were expanded upon orally, Mr Equiano argued that in using a figure of more than six times the population of Jamaica, would "falsely give the impression that only one person in Jamaica would possess this DNA profile". Mr Equiano continued at paragraph 8 of his submissions on this point:

> "The random occurrence ratio must relate to the population or it is of no benefit to the jury. For with a population of 3,000,000 Jamaicans and a random occurrence ratio of 1/20,000,000, mathematically it would mean that of every 20 Jamaican [sic] 3 may share this particular profile."

[49] It seems to us, that this is the essence of the flaw in Mr Equiano's submission. One cannot mathematically convert a ratio of 1:20,000,000 to one of 3:20. If the learned trial judge had attempted to relate the random occurrence ratio to the Jamaican population he would have been seen to be suggesting to the jury, the very

thing that Mr Equiano sought to avoid; that only one person in Jamaica would possess this DNA profile.

[50] It seems to us that until forensic science is able to restrict reference to the random occurrence ratio to our population, expert witnesses and trial judges should not seek to apply the extended population data to our relatively small population; to do so would be to fall into what their Lordships in **Doheny and Adams** called "the prosecutor's fallacy":

> ""The Prosecutor's Fallacy"
>
> It is easy, if one eschews rigorous analysis, to draw the following conclusion:
>
> 1) Only one person in a million will have a DNA profile which matches that of the crime stain.
>
> 2) The defendant has a DNA profile which matches the crime stain.
>
> 3) Ergo there is a million to one probability that the defendant left the crime stain and is guilty of the crime.
>
> Such reasoning has been commended to juries in a number of cases by prosecuting counsel, by judges and sometimes by expert witnesses. It is fallacious and it has earned the title of "The Prosecutor's Fallacy"." (Per Phillips LJ at pages 372 -373)

[51] We find that the learned trial judge, in addressing the DNA evidence, was careful not to fall into the trap called "the prosecutor's fallacy". We can find no fault with his summation in this regard. Ground three must also fail.

Conclusion

[52] In conclusion, we find the learned trial judge showed full acquaintance with the forensic aspect of DNA testing. He applied that knowledge in his assessment of the submission of no case to answer and in the summation of the case to the jury.

[53] In respect of ground one, we agree with the learned trial judge that there was enough evidence on the Crown's case on which, a jury, properly directed could have found that there was a reliable chain of custody in respect of the sample of blood taken from the applicant. The reference by the witness Mrs Brydson, to a "sample of blood allegedly taken from Garland", would be evidence from which the jury could have properly inferred that the blood taken by the doctor from the applicant was the same blood which Mrs Brydson recieved and tested.

[54] Although ground two gave us greater concern than the other two grounds we find that, despite the challenges caused by the failure of the prosecution to adequately identify the various exhibits entered into evidence, the learned trial judge made it clear to the jury that they had to be sure of the integrity of the source, collection, transmission and testing of the various items used in the DNA evidence presented to them. His failure to specify the fact that there was no evidence of labelling on the sample of blood that Mrs Brydson tested, would not have overshadowed for the jury, the fact that it was their duty to ensure that the DNA evidence, in all its aspects, was reliable.

[55] Finally, the learned trial judge correctly related for the jury the evidence concerning the impact of the random occurrence ratio. Had he attempted to convert that ratio so as to restrict it to the Jamaican population, he would have wrongly given an impression to the jury, that the applicant would have been the only person capable of leaving the stains at the crime scene.

[56] On these bases, we find that the application for leave to appeal raised an important issue and therefore should be granted. The hearing of the application is treated as the hearing of the appeal. The appeal is dismissed. The convictions and sentences must be affirmed and the sentences are reckoned to have commenced on 7 February 2009.