



Neutral Citation Number: [2007] EWCA Crim 2722

Case No: 200703209B5

**IN THE SUPREME COURT OF JUDICATURE**  
**COURT OF APPEAL (CRIMINAL DIVISION)**  
**ON APPEAL FROM CENTRAL CRIMINAL COURT**  
**The Honourable Mr Justice Gage**

Royal Courts of Justice  
Strand, London, WC2A 2LL

Date: 15/11/2007

**Before :**

**THE LORD CHIEF JUSTICE OF ENGLAND AND WALES**  
**THE RIGHT HONOURABLE LORD JUSTICE LEVESON**  
and  
**THE HONOURABLE MR JUSTICE SIMON**

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**Between :**

**Barry George**  
**- and -**  
**R**

**Appellant**

**Respondent**

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Mr Orlando Pownall and Mr Jonathan Laidlaw for the Respondent  
Mr William Clegg QC, Mr Jeffrey Samuels and Ms Alice Jarratt for the Appellant

Hearing dates: 5, 6, 7 November 2007  
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**Approved Judgment**

## **Lord Phillips of Worth Matravers CJ :**

### **Introduction**

1. At about 11.30 am on 26 April 1999, Miss Jill Dando, the well-known television presenter, was shot and killed as she was about to enter her home at 29 Gowan Avenue, in Fulham. Her death was caused by a single shot to the head.
2. Forensic examination showed that a firearm had been pressed to her head when her assailant discharged the weapon. The bullet which caused the fatal injury and a 9mm cartridge case were recovered from the crime scene. Among the other findings by forensic scientists was firearm discharge residue (FDR) in the cartridge case and in the victim's hair. The nature of the FDR was Percussion Primer Cap residue which does not degrade with time.
3. Barry George was one of a number of men who came to the attention of the police in the course of their subsequent investigation. On 17 April 2000 his flat was searched; and a Cecil Gee coat was found hanging on the kitchen door, which Barry George admitted was his. The coat was later subjected to forensic examination by a Senior Forensic Science Officer, Mr Robin Keeley, who discovered a single particle (11.5 microns or the equivalent of about one hundredth of a millimetre) of FDR in the internal right pocket of the coat. The particle matched the constituent elements of FDR found in the cartridge case and on the victim's hair.
4. In the meantime, on 25 May 2000, Barry George had been arrested for the murder; and had been charged on 29 May.
5. At trial the Prosecution relied primarily on four categories of evidence. First, there was evidence which identified Barry George as being at the scene of the murder some four hours before it was committed and other evidence which, although not leading to a positive identification, was said to demonstrate such features of similarity to the positive identification as justified the conclusion that he was present at about the time it was committed. Secondly, the Prosecution characterised his interview as containing repeated lies, in particular, as to his knowledge of and interest in Miss Dando. Third, it was alleged that he had made considerable attempts to create a false alibi for the time of the shooting. Finally, the Crown relied on the similarity of the FDR found at the scene of the crime within Miss Dando's wound and the single particle of FDR in the pocket of Barry George's coat.
6. In his interview Barry George admitted owning the coat, and that only he used it. He could not recall whether or not he was wearing it on 26 April 1999.
7. The trial began on 23 April 2001 at the Central Criminal Court before Mr Justice Gage and a Jury. It is unnecessary to rehearse the detail of the case other than that which relates to the FDR. Among the witnesses called were a number of forensic scientists who gave evidence about the FDR findings and their significance. Mr Keeley and Dr Renshaw gave evidence for the Prosecution, and Dr Lloyd gave

evidence for the Defence; their evidence (and the related factual evidence) occupied many days of the trial.

8. On 2 July 2001, after deliberating for almost 32 hours, Barry George was convicted by a majority of 10:1 of the murder of Jill Dando, and was sentenced to life imprisonment.
9. He appealed against his conviction; and on 29 July 2002 his appeal was dismissed by another constitution of this Court. The appeal related primarily to the identification issue. The Court concluded that this evidence was properly admitted and was properly left to the jury for its consideration (see §74 of the Judgment of the Court).

In the course of the Judgment the Court considered the FDR evidence:

“94. Mr Keeley’s opinion was that the fact that only one particle of FDR was found was not significant. This was not an unusual situation. In Mr Keeley’s experience CAP residue would more often than not be found on the firer of the gun, but would not be found on ordinary members of the public unless they had been associated with firearms. His evidence was that the [10.5] micron particle was consistent with having come from the cartridge used in the killing. Dr Renshaw, equally well-qualified, reviewed Mr Keeley’s findings and agreed with them.

95. The jury had also to consider Dr Lloyd’s evidence ... that the particle was so small that to rely on it, one year after the killing, was ‘incredible’. Its size ‘cast doubts on where it came from’ - it could be the result of casual contamination. However, the main part of his evidence was directed to the places where innocent contamination of [the coat] could have taken place. Dr Lloyd was of the view that the police procedures had been flawed and contamination could have occurred at any stage, even before the events surrounding the victim’s death ...”

10. The Court concluded that the FDR evidence was capable of supporting the Prosecution case; and that its weight was a matter for the jury.
11. On 5 November 2002 the Criminal Cases Review Commission received submissions made on Barry George’s behalf. After a full and thorough investigation the Commission decided, on 19 May 2007, to refer the conviction to this Court under s.9 of the Criminal Appeal Act 1995 on the following ground:

“New evidence calls into question the firearms discharge evidence at trial and the significance apparently attached to that evidence.”

12. The single ground of appeal advanced before us is that the evidence in relation to the discovery of the particle of FDR in the pocket of the appellant's overcoat, which was relied on by the prosecution at the trial as of great significance, was, in reality, of no probative value. We gave permission for fresh evidence to be adduced before us in support of this ground and for the Crown to adduce additional evidence in challenging it.
13. This is the course that we now propose to follow:
  - i) We shall summarise the fresh evidence that has been placed before us.
  - ii) We shall consider whether it is in conflict with the case advanced by the prosecution at the trial. If it is:
  - iii) We shall consider whether, having regard to the fresh evidence, the verdict is safe.

**The fresh evidence.**

14. The most significant evidence that we have received owes its origin to the initiative of Dr Ian Evett, who from 1996 to 2002 worked for the Forensic Science Service ('FSS'). His role there included assisting scientists to present evidence to the court in a manner that was logical, transparent and robust. Part of the technique that he advocated involved analysing the evidence by reference to the extent to which it supported one or other of two rival propositions. Typically one proposition would be that an event that formed part of the prosecution case occurred and the rival proposition would be that this event did not occur.
15. While the appellant's trial was in progress, at about the time that Mr Keeley was giving evidence for the prosecution, Dr Evett discussed the FDR evidence in casual conversation with a colleague. He was led to understand that the effect of the evidence was 'neutral' – that is that it lent no positive support to the proposition that the appellant fired the gun that killed Miss Dando. The newspaper reports of the trial suggested, however, that undue weight was being attributed to that evidence, causing him to experience 'vague unease'. He discussed this with his line manager, who suggested that the best course would be for him to discuss the matter with Mr Keeley, whom he knew well, at a suitable opportunity.
16. Dr Evett and Mr Keeley met on 19 November 2001. At that time Dr Evett was in the course of developing with colleagues, who did not include Mr Keeley, a technique called Case Assessment and Interpretation (CAI). The object of this is to clarify *before* evidence is examined and analysed the likelihood of the examination achieving particular results on two different hypotheses or propositions. This technique facilitates the drawing of appropriate conclusions from the results actually obtained on the examination.
17. At his invitation and with his assistance Mr Keeley applied this technique to the likelihood of different findings that he might have made on, as we understand it, carrying out the examination of the pocket of the appellant's coat that he in fact conducted. His conclusions related to two different propositions: (1) that the appellant was the man who shot Jill Dando; (2) that the appellant was not the man who shot Jill

Dando. Mr Keeley estimated that the likelihood of his finding no FDR particle had been 99 in 100 *on either proposition*, the likelihood of his finding one or a few particles as 1 in 100 *on either proposition* and the likelihood of his finding lots of particles as 1 in 10,000 (these figures being intended simply to signify ‘remote in the extreme’) *on either proposition*.

18. The significance of this was that, in Mr Keeley’s opinion, the finding that he in fact made of a single particle had been ‘neutral’. It was no more likely to have come from the gun that killed Miss Dando than from some extraneous source. Mr Keeley confirmed to Dr Evett that he did indeed consider that the discovery of a single particle had been neutral.
19. Dr Evett considered the judge’s summing up in the light of his discussion with Mr Keeley. He recorded his views in a note. Those views were that the summing up was unbalanced in the way that it presented the FDR evidence to the jury in that, while it paid much attention to the fact that it was unlikely that the single particle would have come from an extraneous source, it paid little attention to the fact that it was equally unlikely that the particle would have come from the gun that killed Gill Dando.
20. Dr Evett took no action in relation to his conclusions. He later explained:

“My overall view was that, although the presentation of the FDR evidence was protracted and confusing, I felt that the jury should have gained the right impression – assisted in no small measure by the evidence of John Lloyd.”
21. On 19 January 2006 the Forensic Science Service introduced, in guidelines on ‘the assessment, interpretation and reporting of firearms chemistry cases’, the following guidance in relation to the conclusions to be drawn from single particles:

“9.5 Reporting Single particles and LOW levels

Any positive finding must be declared in the statement and a comparison of the composition or type can be carried out mostly for the purposes of elimination. Other than this, very little in the way of interpretation can be applied to finding LOW levels of residue because of the lack of relevant background data on residue in the external environment.

Whilst the presence of residue in the environment is considered to be extremely rare, persons who associated with firearms users might unknowingly and unwittingly pick up the odd particle of residue. This is the so called ‘lifestyle’ issue. There has been an increasing trend for investigators to gather intelligence information and look for any incriminating evidence against a suspect and to use this as part of the bad character evidence. Casework experience of searching through whole wardrobes of clothes shows that single particles are occasionally detected.

Single particles present a particular problem being the smallest detectable amount of residue it is possible to find. A single particle is defined as one particle found on an item or group of items from a single source, e.g. samples and clothing from a suspect all taken at the same time.

Unfortunately, it is not possible to say when or how single particles were deposited. It cannot be determined if they are the last remains of some prior association with firearms, or whether they have been deposited quite recently from some lightly contaminated source.

In recent years there has clearly been an increase in the criminal use of firearms and an associated rise in the number and use of armed officers. There is not sufficient data on the environmental occurrence of FDR to give a safe interpretation of finding a single particle of residue. Consequently the FSS has adopted a cautious approach to reporting LOW levels of residue and no evidential value can be offered.

From an investigative point of view LOW levels of residue may nonetheless have some value; for example, finding a LOW level on a discarded item such as a glove may give a significant lead to a police investigation. When an officer is given information on LOW levels in an investigative submission he must be made aware that in most cases it is unlikely any evidential weight can be attached to the finding.”

22. In response to a request from the Criminal Cases Review Commission the FSS reappraised the evidence in relation to FDR that was given at the appellant’s trial. They expressed their conclusions in a report dated 4 September 2006, the authors of which were Dr Moynehan and Miss Shaw. They summarised their conclusions at the outset of their report:

“We are satisfied that a particle found on the sample taken from the inside right pocket of Mr George’s coat was characteristic of firearms discharge residue. The particle is indistinguishable from some of those produced by the round of ammunition used to shoot Ms Dando, but a high proportion of ammunition can produce such particles.

In our opinion, it would be just as likely that a single particle of discharge residue would have been recovered from the pocket of Mr George’s coat whether or not he was the person who shot Ms Dando nearly a year previously. Consequently, we consider that the FDR findings in this case would be reported as inconclusive with regard to the issue of whether or not Mr George shot Ms Dando.”

23. The authors elaborated on that conclusion at p. 7 of their report:

“Conclusion

The significance of the FDR findings in this case can be put into context by considering two alternative propositions:

Mr George is the man who shot Ms Dando

Mr George had nothing to do with the incident.

In our opinion the probability of finding a single particle of discharge residue in Mr George’s coat pocket would have been the same, regardless of which of the above propositions was true.

**The FDR evidence is thus inconclusive. In our opinion it provides no assistance to anyone asked to judge which proposition is true.**”

This precisely echoes the views expressed to Dr Evett by Mr Keeley.

24. Dr Moynehan was called to give evidence before us on behalf of the appellant. He confirmed the views expressed in the report of 4 September 2006. Dealing with the FSS guidance he said that today the FSS would consider a single particle of FDR as inconclusive and say that it would be of no evidential value. He said that specific odds, such as those that Mr Keeley put forward in his discussion with Dr Evett, were a matter of subjective assessment based on experience.
25. Dr Evett was also called to give evidence for the appellant. He confirmed the accuracy of the note of his discussion with Mr Keeley. He made it plain that he himself had no expertise in the analysis of FDR. Speaking of the specific odds given by Mr Keeley, he said that these were ‘ball park figures’. It was not possible to be precise. What was significant was the relative magnitude of the figures.
26. Mr Keeley was then called by the Crown to deal with these contentions. First and foremost, he confirmed the accuracy of Dr Evett’s account of their discussion. He said that at the time of that discussion it was his view that the evidence in relation to FDR was neutral and that was still his view. Had he been giving evidence after the FSS guidance had been introduced, he would have followed this guidance and added a rider that the particle provided no information as to whether the wearer of the coat committed the offence. It was necessary to balance the likelihood that the particle came from a gun fired by the appellant and the likelihood that it came from some other source. Both were unlikely but both were possible. He did not and could not say that one was more likely than the other. In these circumstances the presence of the particle provided no support for the proposition that the wearer of the coat had fired a gun.
27. Mr Keeley said that he had intended to convey to the jury that it was no more likely that the single particle of FDR came from a gun fired at the time of Miss Dando’s murder than that it came from some other source. With hindsight he agreed that he should have made that fact clearer in his evidence.

28. Finally, the Crown called Dr Renshaw (who had also given evidence at the trial). His evidence accorded with that of Mr Keeley. While it was unlikely that the particle had resulted from secondary contamination of the coat it was equally unlikely that it was the result of the appellant firing a gun a year before.

**The case advanced by the prosecution at the trial**

29. Mr Clegg QC submitted on behalf of the appellant that the evidence given at the trial misled counsel, the judge and the jury as to what he described as ‘the essential neutrality of the FDR evidence’. The presentation of the case had been unbalanced. The jury had never been told that it was very unlikely that a particle from the discharge of a gun would be found in the coat pocket of the firer a year later. The evidence had concentrated on the possibility that a particle would have got into the pocket as a result of indirect contamination on a number of identified occasions on which this might have occurred. The prosecution case had been that on each such occasion this was so unlikely that it could be discounted. The jury might have concluded that the particle came from the gun that shot Miss Dando by a process of elimination. This would be an unsafe basis for such conclusion.
30. Mr Pownall QC for the Crown challenged the assertion that either the evidence or the presentation of it at the trial had been unbalanced or inappropriate. Neither the prosecution witnesses nor he himself nor the judge had suggested that it was possible, on a scientific basis, to deduce from the presence of the particle whether or not it came from a gun fired by the appellant. It was, however, open to the jury, in the light of all the evidence in the case, to give weight to the presence of the particle as a factor that supported the conclusion that the appellant had shot Miss Dando.
31. It is often the case that a piece of evidence that proves nothing when viewed in isolation acquires probative relevance when considered in the context of other evidence. We have not been asked to determine whether or not the finding of this particle of FDR was correctly admitted in evidence but what was of critical importance was that, if admitted, the conclusions that could properly be drawn from this should be very carefully explained. It is to the way in which the matter was put before the court that we now turn.
32. We have been provided with notes of the opening speech made by Mr Pownall on behalf of the prosecution. These make it plain that the prosecution would be relying on evidence of the finding of the single particle of FDR as one of the factors that pointed to the guilt of the appellant. The question was posed: “You will have to ask yourselves whether this particle is discharge residue and if so how it came to be in the defendant’s coat pocket.” After considering the possibility of extraneous contamination, the opening submits that this should be discounted and continues:

“We submit that...it is no coincidence that taken in conjunction with the identifications and other surrounding evidence that this defendant happens to have a particle in the inside pocket of his coat, which he admits that he might have been wearing that day, which is comprised of the same elements as were found on the coat of Jill Dando and in the same proportion. This aspect of the case provides compelling evidence of his guilt.”

33. When giving evidence in chief, Mr Keeley started by dealing with the source of the FDR. He said that it could have come from the ammunition that had killed Miss Dando or any other ammunition that had that kind of percussion primer. He was then asked:

“If percussion primer residue finds its way into a pocket or on to a garment that is kept in a drawer for a long period of time without being moved, is it possible to say how long its presence in a pocket or on a garment will endure?”

He replied:

“Well, really, I mean, it is indefinitely. I mean, they do not decompose, these metal particles. They do not evaporate or dissolve, and so the particle would stay there for as long as the garment remained undisturbed.

In a pocket, for example, even if the garment were disturbed, say the garment was put on again and worn, unless somebody went to the trouble of turning the pocket out, it would just stay in the pocket, or unless somebody kept putting your hand in the pocket, which might eventually result in it coming out.”

34. We observe that Mr Keeley was not asked how likely it was that particles of FDR would find their way into the pocket of someone who had fired a gun, nor how likely it was that a single particle would do so, or that a single particle would be found in the pocket a year after the gun was fired.
35. Later in his examination, Mr Keeley was asked about the significance of the fact that only one particle was found. The following passages are particularly relevant:

“Q. But is there any significance to you in finding only one item of fire arms discharge residue upon a garment, as opposed to 100 or 150?”

A. Well, no given that, no – given that ...

Well, no, there is no significance. You find 1 you find 20. It just means that there is firearms residue present.”

...

“Q. All I was seeking to establish, Mr Keeley, was this: the fact that you find one particle in a pocket of a garment, is that in any way significant when you reach your conclusions about what it is and where it might have come from?”

A. Well, first of all, what it is will immediately identify where it came from, so in other words, if it is percussion primer discharge residue, it came from a fired cartridge case.

What it may not tell us is exactly how it got there.”

36. In giving evidence to us Mr Keeley elaborated on this topic in a manner that might have been helpful to the jury. He explained that, while the presence of a single particle in a garment gives no indication of how it got there, a significant number of particles may be more indicative of direct contamination than of secondary contamination. It seems to us that, had the FSS guidance been published before he gave evidence, Mr Keeley might have told the jury that, where only one particle is present, it is not safe to draw any conclusions about where it has come from.
37. The remainder of Mr Keeley’s evidence, which spanned three days in all, was devoted to consideration of the likelihood of secondary contamination. He was taken in detail through each occasion on which the defence suggested that there might have been a possibility of such contamination and gave his opinion in respect of each instance that contamination was ‘most unlikely’.
38. We have some difficulty in reconciling some of Mr Keeley’s evidence at the trial with the evidence that he gave before us. When considering indirect or, as it was at times referred to, ‘innocent’ contamination Mr Keeley did not draw a distinction between the question of the likelihood that it *would happen* and the likelihood that it *had happened*. A single particle of FDR had been found in the pocket of the appellant’s coat. According to the evidence that Mr Keeley gave to us, this was an equally unlikely event, whether it had come from the cartridge that killed Miss Dando, or from some innocent source. There was an even chance that it had resulted from innocent contamination. In these circumstances it was not correct for him to dismiss as ‘most unlikely’ the possibility that it had resulted from such contamination.
39. We believe that the manner in which Mr Keeley gave his evidence was likely to have left the jury with the impression that his view was that, because you could discount each possibility of innocent contamination as ‘most unlikely’, the likely source of the particle was the gun that had killed Miss Dando: that was the only unexplored possibility. As we shall show, we believe that his evidence left both counsel and the judge with the same impression as to his view.
40. Dr Lloyd was called to give evidence for the defence. When giving evidence in chief he said this about the significance of a single particle of FDR:

“A. There could scarcely be less residue at all. The presence of a single particle does raise serious doubts as to where it may have come from. It might have been something which is just casual contamination.

Some laboratories have in fact not reported findings as significant when so little residue is found.

It should be said that in this case, this is the first occasion when it has been suggested that a single particle could be a relic of an event which has occurred a year ago. It is quite a unique suggestion.”

41. Dr Lloyd went on to add that the claims that the particle was related to the shooting of Miss Dando were based on scientifically unsupported assumptions. There had been flawed police procedures that had exposed the coat to possibilities of innocent contamination.
42. Dr Lloyd was cross-examined on the likelihood of innocent contamination by reference to the occasions on which there was a possibility that this might have occurred. He was then asked some more general questions:

“Q. And you cannot say that it definitely was not caused by the firing of a gun the year before?”

A. I cannot definitely say so.

Q. And it would be important for any jury examining the circumstances to look at all the circumstances relating to the discovery of the particle; yes?

A. Yes.

Q. And the likelihood that the route was innocent contamination, as opposed to contamination as a result of firing the gun?

A. I would, with respect, suggest that it would be very difficult for the jury to evaluate what is basically a scientific matter of scientific opinion.

Q. So you would disagree with the approach of Dr Renshaw and Mr Keeley?

A. I disagree with their acceptance that this particle is such powerful evidence that the fire arm was discharged by the defendant a year before the coat - -

Q. Dr Lloyd, that is not what they say.

A. I beg your pardon.

Q. You were there. Is that what you heard them say? That it was such powerful evidence?

A. No, I beg your pardon. I did not hear them use that term.

Q. What did you hear them say?

A. I am speaking from memory. I gather that they were inferring or indicating that it was consistent with the allegation that has been made.

Q. They say, and I welcome correction if I have got the paraphrasing of it wrong, that for the reasons they gave, the

steps that were required to produce such a particle, they considered it unlikely, unlikely that it was as a result of innocent contamination.”

43. This passage would, we think, have suggested to the jury and to the judge that Dr Renshaw and Mr Keeley took the view that it was unlikely that the particle was the product of innocent contamination. The obvious inference of such a conclusion was that it was likely that the particle was the product of the firing of the gun that killed Miss Dando, for we repeat that this was the only other possibility.
44. The following passages from the notes of Mr Pownall’s closing speech would have given the same impression:

“Once it is accepted that there is a possibility of innocent contamination it is for you to assess how likely it is that its appearance is susceptible to innocent explanation. Dr. Lloyd is a highly qualified expert. His credentials are no better or worse than Mr Keeley. He considers that the corrupted integrity of the coat combined with the other factors cannot be taken as reliable evidence of the fact that the particle was produced as a result of the defendant firing a gun. Dr Renshaw and Mr Keeley disagree. You will decide.”

...

“I am not going to attempt a statistical probability of this happening by reason of innocent contamination. We submit that it is so unlikely that you can safely ignore the possibility of innocent contamination.”

45. Mr Pownall told us that the latter comment was not intended to be of general application, but we doubt whether the jury would have appreciated that.
46. The summing up of the judge showed that he understood that, on the evidence of Mr Keeley and Dr Renshaw, the finding of the single particle of FDR provided cogent support for the other evidence relied upon by the prosecution as establishing that the appellant was the murderer of Miss Dando. Early in his summing-up he described the expert evidence in relation to the FDR as being an ‘important part’ of the prosecution case and later as one of the ‘three main strands’ of that case. The other two strands were evidence of identification near the scene of the murder and an alleged attempt to create a false alibi.
47. The judge said this about the relevance of the FDR evidence:

“Thirdly, you might be left in the position where you are sure that the prosecution had proved the identification part of its case and disproved the alibi and proved the added factor that he had tried to fabricate an alibi, but you are not sure that the particle of fire arm residue has been proved to be other than innocent, and I hope you understand when I use the shorthand expression ‘innocent’.

In that event, the prosecution still contend that you can draw the necessary inference that the defendant was the killer. The defence say the particle of fire arms discharge residue is so important to the prosecution's case that you could not possibly find him guilty if that strand of the prosecution's case is not proved.

Ladies and gentlemen, if this third alternative represents your findings, it is for you to decide whether in that event you can draw the necessary inference of guilt from the other two strands, but you may think that the prosecution in those circumstances, having failed to prove an important part of its case, would be obviously significantly weaker than if all three main strands were proved.

In those circumstances, you would have to be very careful and cautious before concluding that the prosecution has proved that he was the murderer.”

48. The judge introduced the conflict of evidence between Mr Keeley and Dr Lloyd as follows:

“If you are sure that it is in fact firearms discharge residue, are you sure that the particle was not deposited on the coat as a result of what we have all been calling innocent or adventitious contamination?”

Mr Keeley's evidence is of very considerable importance when you are considering both these questions - - as, indeed, let me make it clear, is Dr Lloyd's evidence of very considerable importance.”

He went on to add that tests carried out under the supervision of Mr Keeley showed that FDR would more often be found on an individual firing a gun than not.

49. Summarising Dr Keeley's evidence about the finding of only a single particle, he said:

“He told you that in his opinion, the fact that only one particle of firearms discharge residue was found was not significant. He said it was not unusual for only one particle to be found on a garment. In this case because the gun must have been against the head of the victim when fired, there would be little at Gowan Avenue available for contamination from there. He found very little on the hair and hardly any on the shoulder. Most of it went into the wound, in this view.”

50. The judge dealt at length with Mr Keeley's evidence as to the various possibilities of innocent contamination. He then summarised Dr Lloyd's evidence on the same topics. Finally the judge directed the jury that they should consider the evidence in relation to the FDR on its own, and only have regard to it if they were sure that it showed that the particle did not derive from innocent contamination. He told them:

“What you have to do is to decide whether, on the evidence to which I have referred, the prosecution has made you sure that this particle was deposited on the coat other than innocently. If you are sure you can exclude innocent contamination, then you can take this matter into account, along with all the other evidence, when deciding whether the prosecution has proved its case. If you are not sure that the prosecution has proved its case on this issue, then discard this evidence altogether; it will not help you at all. In that event, you may think - - as I have already said towards the start of my summing-up - - this removes an important part of the Crown’s case.”

51. It is clear from these extracts that the summing up that the jury were directed that the evidence of Mr Keeley and Dr Renshaw provided significant support for the prosecution’s case that the appellant had fired the gun that killed Miss Dando. The judge did not consider that their evidence on this topic was ‘neutral’. In this he was correct and his summary is a model reflection of the evidence that had been called. In reality, when considered objectively that evidence conveyed the impression that the Crown’s scientists considered that innocent contamination was unlikely and that, effectively in consequence, it was likely that the source of the single particle was the gun that killed Miss Dando. In that respect their evidence at the trial was in marked conflict with the evidence that they have given to this court with the result that the jury did not have the benefit of a direction that the possibility that the FDR had come from the gun that killed Miss Dando was equally as remote as all other possibilities and thus, on its own, entirely inconclusive. In the light of the way in which Mr Keeley now puts the matter, we have no doubt that the jury were misled upon this issue.

**Is the verdict safe?**

52. We can deal with this issue shortly. The FDR evidence was not the foundation of the prosecution’s case against the appellant. Without pre-judging what might follow, in the absence of the FDR evidence there was circumstantial evidence capable of implicating the appellant; that much is clear from the detailed consideration given to the other aspects of the case by the Court of Appeal hearing the first appeal. Mr Clegg has accepted that proposition by conceding that, if this appeal succeeds, there should be a re-trial. We have to decide whether, had the evidence that we have heard been adduced at the trial, this might reasonably have affected the decision of the jury to convict, for this is a good test of whether, in the light of the fresh evidence, the conviction is unsafe – see *R v Pendleton* [2001] UKHL 66.
53. The answer to this question is provided by the trial judge. After summarising the evidence in relation to the FDR he said:

“Nevertheless, you may think that the evidence of the particle is an important part of its case. If you are not sure that the prosecution has proved its case on this issue, you have to ask yourselves: can we be sure that the other evidence, about which we are sure, drives us to the inevitable conclusion that this defendant killed Jill Dando to the exclusion of all other explanations or possibilities?

As I said to you earlier towards the start of my summing-up: in those circumstances, you may think you would have to be cautious - - very cautious - - and careful before arriving at that conclusion.”

54. It is impossible to know what weight, if any, the jury attached to the FDR evidence. It is equally impossible to know what verdict they would have reached had they been told as we were told, by the witnesses who gave evidence before us, that it was just as likely that the single particle of FDR came from some extraneous source as it was that it came from a gun fired by the appellant. The verdict is unsafe. The conviction will be quashed.