

EXPERT WITNESSES AND THE DUTIES OF DISCLOSURE & IMPARTIALITY:
THE LESSONS OF THE IRA CASES IN ENGLAND.

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Introduction

For lawyers, jurors and judges a forensic scientist conjures up the image of a man in a white coat working in a laboratory, approaching his task with cold neutrality, and dedicated only to the pursuit of scientific truth. It is a sombre thought that the reality is sometimes different

(*R v Ward* (1993) 96 Cr.App.R. 1 at 52).

1 THE BACKGROUND: BOMBINGS, ARRESTS, CONVICTIONS, APPEALS

The IRA cases arose from a series on bombings on the English mainland over a period of fourteen months from 10 September 1973 to 21 November 1974. In summary:

Date	Place	Killed	Convicted
10.9.73	Euston Railway station	-	Ward
4.2.74	Army bus	12	Ward
12.2.74	Defence college	-	Ward
5.10.74	Guildford	5	Guildford 4 & Maguire 7
7.11.74	Woolwich	2	Guildford 4 & Maguire 7
21.11.74	Birmingham (2)	21	Birmingham 6

Eighteen suspects were arrested, convicted and finally have had their convictions overturned as follows:

	Arrested	Convicted	Referred to Ct App	Released/ Acquitted	Time in Custody
Judith Ward	14.2.74	4.11.74	17.9.91	4.6.92	18 yrs
Birmingham 6	22.11.74	15.8.75	29.8.90	27.3.91	17 yrs
Guildford 4	11.74	22.10.75	16.1.89	19.10.89	15 yrs
Maguire 7	3.12.74	4.3.76	12.7.90	26.6.91	*

* sentences of between 4 & 14 yrs had expired at time of appeal

The Guildford Four, the Birmingham Six and Judith Ward were charged with multiple counts of murder. The Maguire Seven were charged with possession of nitroglycerine between 1 and 4 December 1974 under s.4 Explosives Substances Act (UK). The prosecution case was that they had been involved in the supply of explosives to the Guildford Four. One of the Maguire Seven, Giuseppe Conlon, who died in custody in 1980, was the father of Gerard Conlon, one of the Guildford Four.

All appellants except Judith Ward had lodged appeals against their convictions soon after the trials. They were unsuccessful. However, their cases remained causes celebres within Britain, with several groups and individuals pressing for inquiries into their convictions, and leading to television documentaries, books and articles (Kee, Robert 1986, *Trial and Error (Guildford Four)*; Mullins, Chris 1987, *Error of Judgment: the truth about the Birmingham bombings*, Poolberg Press; Hilliard, Brian 1990, "Soldiers of Nothing", *New Law Journal* v.140, no. 6442 p.163 (Birmingham Six)).

This pressure finally led to the decision by the Home Secretary to refer the Guildford Four case back to the Court of Appeal. On 20 October 1989, following the success of the Guildford Four appeal, the British government appointed Sir John May to inquire into the convictions of the Four and into the related case of the Maguire Seven. His interim report (May, Sir John 1990, *Interim Report on the Maguire Case*, Stationary Office) unearthed miscarriages of justice in the handling of scientific evidence that were also relevant to the other cases. As appeal after appeal was referred back to the court there was cumulating evidence that lies and deceit had been practised not just by the police who extracted the confessions from the appellants, but also by the expert witnesses who backed up the police with scientific evidence and by some of the lawyers who conducted the cases for the prosecution. Sir John May's inquiry is now a Royal Commission on Criminal Justice inquiring into the systemic problems that contributed to these individual miscarriages of justice.

In all the trials, the evidence presented by the prosecution consisted of alleged admissions made by the accused, supported by scientific evidence that the accused had recently handled explosives.

In summary, the appeals were allowed on the basis of:

- (a) Guildford Four: *R v Richardson & Ors*, *The Times*, 20.10.89:33:
Evidence that the police witnesses had lied to the court about "contemporaneous" notes that they claimed to have made during the interrogation and "confessions" of the appellants. Fresh evidence by document examiners found that these records were made at times and in ways other than that claimed by the police. The May inquiry was appointed to inquire into concerns about the scientific evidence of testing for nitroglycerine.
- (b) Birmingham Six: *R v McKenny & Ors* (1991) 93 Cr.App.R. 287
Both the scientific evidence of contamination by nitroglycerine and the documents said to set out the confessions obtained by the police were found to be unreliable following the admission of fresh evidence.
- (c) Maguire Seven: *R v Maguire & Ors* (1992) 94 Cr.App.R. 133
The prosecution's common law duty of disclosure to the accused extended to forensic scientists, and their failure to disclose relevant test results in this case was a material irregularity in the course of the trial.
- (d) Judith Ward: *R v Ward* (1993) 96 Cr.App.R. 1
The suppression and misrepresentation of test results by the forensic scientists, fresh evidence on the unreliability of the scientific tests, the failure of treating

psychiatrists to reveal the appellant's true mental condition, fresh evidence on her personality disorder, and the suppression and misrepresentation of evidence by prosecution lawyers caused a miscarriage of justice. Detailed consideration of the common law duty of disclosure.

The Home Office Scientist: Dr Skuse

Dr Frank Skuse was a Home Office forensic scientist. He gave evidence in the trials of:

- (a) Birmingham Six (1991) 93 Cr.App. R. 287 at 295-301, 303-304, 312, 318;
- (b) Judith Ward (1993) 96 Cr.App.R. 1 at 53-54.

Dr Skuse gave evidence of his analysis of swabs taken from the appellants' hands, fingernails and some belongings to test for traces of nitroglycerine. He gave impressive evidence which was clearly preferred by the judge in the Birmingham Six trial (*R v McIlkenney* (1991) 93 Cr.App.R. 287) to the evidence of the defence expert. The trial judge posed what he thought to be a rhetorical question to the jury, which in fact turned out to be prophetic, when he said (*ibid*, at page 297):

Of course, if in forming your own judgment on this matter you prefer Dr Black's view to Dr Skuse's view, then you will obviously conclude that the forensic evidence of Dr Skuse is of no value. Indeed, Dr Black's theory logically seems to imply not only that Dr Skuse's theories were of no value, but that Dr Skuse had been spending and must have spent much of his professional life wasting his time because, if Dr Black is right, the Griess test was not worth carrying out... Do you think that Dr Skuse has been wasting most of his professional time? It is a matter entirely for you.

Unlike some other scientists, Dr Skuse's veracity was not in doubt, however his competence was. The Court of Appeal concluded in 1992 (*ibid*, page 53-54):

Dr Skuse's conclusion was wrong, and demonstrably wrong, judged even by the state of forensic science in 1974.

The Birmingham Six Case

The Birmingham Six were arrested at Heysham at 10.45 p.m. on 21.11.74, two and half hours after the bombs exploded in Birmingham. Dr Skuse took his sample swabs at around 5.50 a.m. on 22.11.74.

Dr Skuse said he was 99 per cent certain that Hill and Power had had contact with explosives, and was unsure as to Hunter. He based his opinions on the following results:

Accused	Skuse Griess	Birmingham Forensic Science Laboratory GCMC
McIlkenny	-ve	-ve
Hill	+ve R hand -ve L hand	-ve R hand +ve L hand
Power	+ve R hand	-ve
Walker	-ve	-ve
Hunter	-ve	-ve
Callaghan	-ve	-ve

In 1974 Dr Skuse used a test known as the "Griess test". In the appeal, it was held that this should only be relied upon as a gateway or preliminary test that must be supported by more sensitive tests undertaken in a laboratory. Fresh evidence was led at the appeal which led to the conclusion either that:

- (a) if Dr Skuse used weak solution (as he stated) the test could have only reacted positively if the appellants' hands had been "dripping with nitroglycerine", which was "an absurdity" (at pages 297, 298); or
- (b) if Dr Skuse used stronger solution the test could react positively to a number of chemicals, not just nitroglycerine.

Fresh evidence was also led that the positive results could have arisen from contamination with everyday chemicals, including laboratory detergents that could have been used to wash the test containers. The test procedure could have been reacting to nitrite in some soaps, and was not specific for nitroglycerine.

The positive result in the GCMC test (gas chromatography mass spectrometry) was also questioned as a result of fresh evidence not available in 1974. In 1990 it was proved that the test was not exclusive for nitroglycerine, that other substances could produce the identical positive result and be mistaken for nitroglycerine. The Court concluded that the positive GCMC test may have equally been due to the presence of some other chemical. There was no criticism of the scientist in the 1974 GCMC tests. The Court of Appeal held that the findings of Dr Skuse were "now in doubt" (ibid at page 318).

As a "battle of the experts" the Birmingham Six trial was always weighted in favour of the prosecution. As the Court of Appeal concluded (ibid at page 312):

- (6) A disadvantage of the adversarial system may be that the parties are not evenly matched in resources. As we have seen, one reason why the judge expressed his preference for Dr Skuse was that Dr Black had carried out no experiments to prove his theory. Experiments presumably cost money. Whether Dr Black could have carried out any experiments within the limitations of legal aid, or the time available, we do not know. But the inequality of resources is ameliorated by the obligation on the part of the prosecution to make available all material which may prove helpful to the defence. The later history of the present appeal shows how well the prosecution can perform that obligation.

Judith Ward was arrested on 14 February 1974. Dr Skuse took several sample from her with the following results:

	Griess	TLC	GCMC	Relationship to Offences
Fingernail swab 15.2.94	+ve R hand +ve L hand	-ve R hand "+ve" L hand	-	Defence academy
Ring 15.2.74	"faint"	not carried out	-	Defence academy
Two bags 16.2.74	+ve	not carried out	-	Army bus

At the conclusion of the Judith Ward appeal it was held that the evidence of Dr Skuse should have been excluded at the trial as "valueless" (*R v Ward* (1993)96 Cr.App.R. 1 at page 53). The Court of Appeal held (ibid at page 54):

there is before us an impressive body of expert opinion to the effect that Dr Skuse's tests, notwithstanding his confident assertions at the trial, were of no value in establishing contact between the appellant and the explosives in 1974. The fact that Dr Skuse apparently got the Griess test result, which he described, cannot be regarded as more than an initial step towards the identification of nitroglycerine: it was not evidence of the presence of nitroglycerine. Dr Skuse relied on one TLC test spot, despite the fact that it was not pink. It is established to our satisfaction that this conclusion was wrong. The scientific evidence before us further shows that the interval of some 57 hours between the alleged handling of explosives at Latimer and the taking of samples by Dr Skuse rendered unlikely the suggestion of the explosives on Miss Ward's hands as a result of planting explosive devices. Moreover the very fact that the TLC test did not work puts a substantial question mark over the condition of the preliminary Griess test. In our judgment, if the trial judge had known what we know, he would have excluded Dr Skuse's evidence as valueless.

The Rarde Scientists: Mr Elliott & Mr Higgs

Mr Elliott and Mr Higgs, scientists from the Royal Armaments Research and Development Establishment (RARDE), gave evidence in the trials of:

- (a) Maguire Seven (1992) 94 Cr.App.R. 133 at 143-144, 145-152;
- (b) Judith Ward: *R v Ward* (1993) 96 Cr.App.R. 1 at 46, 47, 48, 49, 51, 54, 55.

Both the Court of Appeal and the May inquiry found that they lied and suppressed evidence at the trials, and Mr Higgs (Mr Elliott had died before the appeals) was not believed at the appeal. The Times of July 13 1990 summarised the findings of the May report in relation to the RARDE scientific tests and witnesses as follows:

They knew but did not reveal that the positive result was not unique for nitroglycerine, did not say secondary tests which were negative had been held nor fully disclosed tests carried out during the trial even to the prosecution.

The scientists honestly reported results for nitroglycerine and once charges were laid there was no going back. They "imperfectly understood their duties as forensic scientists and as witnesses".

Maguire Seven

The Maguire Seven appellants shared a house. On 3 December 1973 their house was raided by police following alleged admissions by two of the Guildford Four that explosives were kept at that house. Scientific tests did not reveal any explosives residue in the house, and swabs were taken from the appellants' hands (and the rubber gloves belonging to Mrs Maguire) to test for explosives residue.

The RARDE scientists conducted TLC (thin layer chromatography) tests and reported positive results for nitroglycerine for all male appellants but one, and positive results for Mrs Maguire's rubber gloves.

The issues in the appeal were:

- (a) was the substance nitroglycerine? and
- (b) if it was, could there be an innocent explanation (for example, contamination from an indirect source).

The judgment of the Court of Appeal in relation to Mr Elliott and Mr Higgs included findings that:

1. Elliott failed to disclose a negative nitrotoluols test conducted on 10.12.74;
2. they failed to disclose a negative "nail scrape" test conducted by a laboratory assistant on 11.2.76; and
3. Higgs lied when he told the Crown Prosecutor (who passed the information on to the defence) that the scientists could distinguish between test results for nitroglycerine (the substance charged in the indictment) and another form of explosives known as PETN.

Other grounds for allowing the appeal included:

4. mishandling by the judge of evidence found by the defence team late in the trial that the RARDE test was not exclusive for nitroglycerine;
5. tests conducted in 1977 (the same year as the Maguire Seven's first, unsuccessful, appeal to the Court of Appeal) by Mr Elliott and others, and published in 1982 showed that it was not necessary to "knead" explosives (as had been said in the trial) to get traces of nitroglycerine under the fingernails; and
6. fresh evidence brought out in the May inquiry that nitroglycerine traces could be innocently acquired by persons using a hand towel after one person with nitroglycerine on their hands had wiped their hands on the towel. The possibility of innocent contamination could not be excluded.

The Maguire judgment did not contain any personal criticism of the scientists. However the court in *Ward (R v Ward (1993) 96 Cr.App.R. 1)* referred to Mr Elliott's and Mr Higgs' loss of objectivity "as illustrated by the catalogue of non-disclosure which we have set out" and quoted from a paper given by Mr Higgs shortly after the Maguire trial in 1976, as evidence of the wrong approach to giving expert evidence. Mr Higgs was reported as having said (ibid at page 51):

What did worry us, however, was that we were not able to satisfactorily distinguish between nitroglycerine and PETN using toluene as eluant. However, this point never really cropped up during the trial. We were all very careful about what not to say in this respect. I know this is not entirely a satisfactory scientific viewpoint, but we took the view that for a given amount of explosive we could distinguish PETN by the slower rate of colour development.

The Court of appeal in *Ward* commented (ibid at page 52):

The validity of Mr Higgs' comments on possible confusion between the two explosives does not matter. What does matter is the revelation that there was an understanding among the senior RARDE forensic scientists that nothing would be said about their doubts at the trial.

Judith Ward

The RARDE scientists gave evidence of tests relating to Judith Ward. In summary, the Court of Appeal found as follows:

1. swabs taken after Euston station bombing:
 - scientists suppressed evidence, wrote a misleading report, told deliberate falsehoods, and their conclusions were also undermined by fresh evidence; and
2. swabs taken from Miss Ward's caravan after the Army bus bombing:
 - scientist overstated some test results, lied to a defence expert witness about the test results, went outside test guidelines to record a "positive" test result, and failed to disclose boot polish tests which showed that other chemicals, including everyday household materials, could also record positive results in their "nitroglycerine" test.

In the light of all the evidence the court held that the Euston test results did not prove that Miss Ward had handled explosives.

1(a) Euston Railway tests: suppression of evidence, misleading report
Swabs were taken from Miss Ward and her two companions on 10 September 1973, ten hours after the Euston bombing. Both companions tested either "positive" or "trace", but neither was charged. Ms Ward's test results showed as "faint trace" for the right hand, "negative" for the left hand and "negative" for nail scrapings.

Prior to the trial the prosecution served on the defence a statement by Mr Elliott dated 18.2.74 that all three persons "gave positive results". The Court of Appeal commented (ibid at page 45):

This was a misleading statement for which Mr Elliott is responsible. The statement failed to distinguish between the test results for Diamond, Gately and Miss Ward. Moreover it was an overstatement to describe "a faint trace" simply as "positive". If the true results had been disclosed we believe that the defence might have contested the conclusion that nitroglycerine was present on Miss Ward or her belongings. In any event, the fact that only a faint trace was involved was relevant to the possibility of contamination. It was also wrong for the prosecution to serve such an uninformative witness statement on behalf of a forensic scientist. It was calculated to make it more difficult for the defence experts to probe the matter.

1(b) Euston railway tests: "deliberate falsehoods"

On February 26, September 20 and October 4 1974 tests were conducted by Mr Elliott and Mr Higgs to determine whether contamination with nitroglycerine could occur as a result of contact with debris after an explosion. In his sworn evidence at the trial on October 16 1974 Mr Higgs:

1. referred to the February 26 test but said "all the results were negative" when there had in fact been a positive test result;
2. failed to refer to the September and October tests, which had also registered positive results.

The Court of Appeal found Mr Higgs to be a poor witness. They held (ibid at page 49):

we reject Mr Higgs' account as a deliberate falsehood.

The Court continued (ibid at page 49):

The consequence is that in a criminal trial involving grave charges three senior government forensic scientists deliberately withheld material experimental data on the ground that it might damage the prosecution case. Moreover Mr Higgs and Mr Berryman misled the court as to the state of their knowledge about the possibility of contamination occurring from the debris of the explosion. No doubt they judged that the records of the firing cell tests would forever remain confidential. They were wrong. But the records were only disclosed about 17 years after Miss Ward's conviction and imprisonment.

1(c) Euston Railway test: fresh evidence

At the appeal fresh evidence was called which established that the source of contamination could also have been hand-to-hand contact with another person whose hand was heavily contaminated by nitroglycerine.

2(a) Caravan test results: over-stating results

Mr Higgs and Mr Elliott also conducted tests for nitroglycerine traces on the interior of a caravan that Miss Ward had occupied for a period of time up to 4 February 1974. The tests were conducted on 21 and 24 February 1974. Their witness statements referred to "positive results" for nitroglycerine. In fact the result sheets show the results were "v. faint", "v. faint trace" and "faint". The Court of Appeal commented (ibid at page 45):

If the statements had disclosed the true position, it is likely that the defence experts would have probed this aspect. The statements were calculated to discourage investigation.

2(b) Caravan tests: lying to defence expert witness

On 27 September 1975 Mr Higgs told the defence expert Mr Clancey that the TLC tests "definitely" established the presence of nitroglycerine. The Court of Appeal commented (ibid at page 46):

That was a considerable overstatement of the true position. Relying on Mr Higgs' assurance Mr Clancey did not take further samples. The inaccurate statements of Mr Higgs and Mr Elliott caused the defence to concede that the test results established the presence of nitroglycerine in the caravan... We find that Mr Higgs did not wish to reveal anything which might encourage investigation by the defence. He did not want to disclose the faintness of traces or the details of the Rf values which were recorded in the laboratory notes.

2(c) Caravan tests: going outside the 1974 RARDE guidelines to find positives:

Two of the three test results said to be "positive" were outside the 1974 RARDE guidelines for interpreting TLC data, that is, should have been declared "negative". The third test result was extremely borderline. The Court of Appeal commented (ibid at page 47):

If these discrepancies had been disclosed it would have weakened the prosecution case on the caravan samples; it would probably have caused the defence experts to challenge the validity of the caravan samples and it would probably have led to a parallel investigation of Rf values for the Euston and Liverpool TLC results which at that time would probably still have been available. It is sufficient to say that if the chemical analysis sheets and the laboratory notes for the caravan samples, or the substance of the information contained in those documents, had been disclosed in the pre-trial process, the course of the deployment of the scientific evidence at the trial may have been different.

2(d) Caravan tests: non-disclosure of shoe polish tests

At the trial in 1974 the defence expert witness said that it was possible that another chemical also tested positive in the TLC test, but he had no knowledge of any chemical that had been so identified.

Mr Higgs and Mr Elliott knew at that time that tests they had conducted in 1973 had shown that some dyes in shoe polishes and other commodities could produce a positive TLC test result. Not only did they withhold that information, Mr Higgs lied about it. He signed a witness statement for the prosecution in September 1974 stating that there was no other substance which could mimic nitroglycerine results.

The Court of Appeal commented in the light of evidence before them by Mr Higgs (ibid at page 48):

It is in our judgment inconceivable that Mr Higgs was not aware of these experimental data. We reject Mr Higgs' evidence and find that he was fully aware of these data. But Mr Higgs did not want the prosecution and defence to know about these experiments. In short Mr Higgs' attitude was that he was not going to reveal data which might weaken the prosecution case.

Conclusion

The appeal judges concluded that the forensic scientists had failed to disclose relevant material favourable to the defence, that they gave evidence which was contradicted by some of their own test results and that their partiality affected all of the evidence that they gave. The court concluded (ibid at page 55):

Given the fact that we have found that Mr Higgs and Mr Elliott had allowed their objectivity to become clouded by partisanship, the question arises whether we can have faith in their supervision and interpretation of test results. It may be of course that in dealing with the tests Mr Higgs and Mr Elliott were approaching their task with clinical detachment. But can we be sure?..... In these circumstances it seems more realistic to accept that the lack of objectivity that subsequently characterised the conduct of Mr Higgs and Mr Elliott may also have affected their judgment on the earlier interpretation of the TLC tests. For this reason we have to say that we have no faith in the accuracy of the caravan test results.

The Psychiatrists And The Ward Case

Judith Ward's case at the appeal was that the confessions had been voluntary and were correctly recorded, but they were not true. Her appeal was allowed on many bases, including fresh evidence consisting of medical opinions that she suffered, and suffered in 1974, from a personality disorder or mental illness that led her to attention seeking behaviour and the making of false confessions. Psychiatrists retained by both the appellant and the respondent DPP at the appeal agreed about the existence of this disorder, which struck at the reliability of her confessions and explained why she would confess to offences she had not committed.

No psychiatric evidence had been called at the trial. This can be explained in retrospect by the suppression of information by the two psychiatrists who treated Miss Ward in prison and by the DPP solicitors.

Miss Ward was arrested on 14 February 1974. She attempted suicide on 5 July and 24 August 1974. Dr Lawson, a prison psychiatrist, in his internal report on the first incident expressed real concern about what he described as "an acute psychiatric emergency" and that "her life is in some danger". However his report to the DPP was more reassuring. He said that while he had considered her life to be in danger at the time, by 4 September 1974 he considered she had improved and was now "relieved". He did not mention her second attempt on 24 August.

The Court of Appeal criticised these muted tones (*R v Ward* (1993) 96 Cr.App.R. 1 at page 41):

We must add that we are unable to accept Dr Lawson's statement that he had signalled his views of the appellant's mental state loud and clear in the first sentence of his opinion. That sentence records, in muted terms, Dr Lawson's assessment of the appellant's powers of deception and self-deception, but it fails to meet Mr Mansfield's submissions that Dr Lawson had put the interests of secrecy and of security before the interests of the appellant who was his patient. Dr Lawson admitted that he had not told the appellant's family, let alone her solicitor, of the acute psychosis which he had diagnosed...

both doctors must have succeeded in persuading themselves that it (the second suicide attempt) was of no significance. Its non-disclosure nonetheless amounts to material irregularity. If it had been disclosed together with other information contained in the reports of Dr Lawson and Dr Mather it was evidence which established beyond doubt that the defence required the assistance of psychiatric advice.

Miss Ward was also examined by an "independent" consulting psychiatrist Dr Mather. He also failed to refer to the second suicide attempt. His report, dated 18 September 1974, described only the 6 July attempt and the prescribing of anti-depressants, adding "to this she responded rapidly and has been quite well ever since".

Neither Dr Lawson's nor, probably, Dr Mather's reports to the DPP were apparently disclosed by the DPP lawyers to the defence lawyers. File notes showed that copies had been sent to three prosecuting counsel, to the DPP solicitor, and to three regional police forces, but there is nothing to show they were sent to the defence lawyers even though that was "usual practice". None of the defence lawyers recalled having seen those reports. The Court of Appeal concluded (*ibid* at page 39):

There is no question, however, but that the reports should have been seen by the appellant's advisors and we think it is established on the balance of probability that Dr Lawson's report at least was not. It is not suggested that the reports were deliberately withheld from the defence by Mr Bibby but failure to disclose them both was nonetheless a material irregularity.

The Common Law Duty Of Disclosure

The common law right to a fair trial depends upon the observance by the prosecution, no less than the court, of the rules of natural justice: *Leyland Justices; ex parte Hawthorn* (1979) QB 283, referred to in *R v Ward* (1993) 96 Cr. App.R. 1 at 25.

The prosecution's common law duty of disclosure is part of the procedure ensuring the right to a fair trial (ibid at page 52-53):

Given the undoubted inequality as between prosecution and defence in access to forensic scientists, we regard it as of paramount importance that the common law duty of disclosure, as we have explained it, should be appreciated by those who prosecute and defend in criminal cases. And, if difficulties arise in a particular case, the court must be the final judge.

Statutory and Common Law: 1974-1992

The law in England at the time of the trials required the prosecution to supply the accused with the names and addresses of witnesses that the prosecution was not calling: *R v Bryant & Dickson* (1946) 31 Cr.App.R. 146, Archbold 1973, 38th ed., para 443.

In 1987 English court rules were introduced which enable the legal representatives of a defendant to require the prosecution by notice in writing to provide in respect of scientific evidence a copy of (or an opportunity to inspect) "the record of any observation, test, calculation or any other procedure on which (any) finding or opinion is based" (Crown Court (Advance Notice of Expert Evidence) Rules). The Court of Appeal commented in *Ward* (at page 52):

The new rules are helpful. But it is a misconception to regard them as exhaustive: they do not in any way supplant or detract from the prosecution's general duty of disclosure in respect of scientific evidence. That duty exists irrespective of any request by the defence. It is also not limited to documentation on which the opinion or findings of an expert is based. It extends to anything which may arguably assist the defence. It is therefore wider in scope than the rule. Moreover, it is a positive duty which in the context of scientific evidence obliges the prosecution to make full and proper inquiries from forensic scientists in order to ascertain whether there is discoverable material.

In 1992 the British Attorney-General issued guidelines which imposed a heavily qualified duty on the prosecution to supply accused persons with "unused material", namely copies of statements not included in the committal brief (Disclosures of Information to the Defence in Cases to be Tried on Indictment (1982) 74 Cr.App.R. 302). The Court of Appeal in *Ward* (ibid at page 57) emphasised in their judgment however, that nothing in those "Guidelines" concerning the withholding of "sensitive" information could derogate from the rights and duties of disclosure enunciated in the *Ward* judgment.

The May Royal Commission on Criminal Justice is also considering issues of disclosure in its expanded terms of reference notified in the report on the Maguire case on 12 July 1990. These issues include:

1. the preparation of court evidence and the role of experts;

2. advance disclosure of scientific findings;
3. the process by which a prosecution based on scientific evidence is authorised; and
4. Home Office procedures for assessing scientific evidence after claims of a miscarriage of justice.

1990 Birmingham Six Appeal: Disparity of Resources and Need for Disclosure

The Court of Appeal commented in the Birmingham Six appeal - *R v McIlkenny & Ors* (1991) 93 Cr.App.R. 287 at 312:

A disadvantage of the adversarial system may be that the parties are not evenly matched in resources..

But the inequality of resources is ameliorated by the obligations on the part of the prosecution to make available all material which may prove helpful to the defence. The latter history of the present appeal shows how well the prosecution can perform that obligation.

1991 Maguire Seven Rules

The Court in the Maguire Seven appeal ((1992) 94 Cr.App.R. 133 at 147) extended the duty of disclosure from prosecution lawyers to expert advisers:

We are of the opinion that a forensic scientist who is an adviser to the prosecuting authority is under a duty to disclose material of which he knows and which may have "some bearing on the offence charged and the surrounding circumstances of the case". The disclosure will be to the authority which retains him and which must in turn (subject to sensitivity) disclose the information to the defence. We hold that there is such a duty because we can see no cause to distinguish between members of the prosecuting authority and those acting in the capacity of a forensic scientist. Such a distinction could involve difficult and contested enquiries as to where knowledge stopped but, most importantly, would be entirely counter to the desirability of ameliorating the disparity of scientific resources as between the Crown and the subject. Accordingly we hold that there can be a material irregularity in the course of a trial when a forensic scientist advising the prosecution has not disclosed material of the type to which we have referred.

This approach was adopted and confirmed in *Ward* ((1993) 96 Cr.App.R. 1 at 22).

1992 Common Law Duty of Disclosure: Ward Case

The behaviour of the expert witnesses was summarised by the Court of Appeal in *Ward* as follows (ibid at page 51):

In Miss Ward's case the disclosure of scientific evidence was woefully deficient. Three senior RARDE scientists took the law into their own hands and concealed from the prosecution, the defence and the court, matters which might have

changed the course of the trial. The catalogue of lamentable omissions included failure to reveal actual test results, the failure to reveal discrepant Rf values, the suppression of the boot polish experimental data, the misrepresentation of the first firing cell tests, the concealment of subsequent positive firing cell test results, economical witness statements calculated to obstruct enquiry by the defence, and, most important of all, oral evidence at the trial in the course of which senior RARDE scientists knowingly placed a false and distorted scientific picture before the jury. It is in our judgment also a necessary inference that the three senior RARDE forensic scientists acted in concert in withholding material evidence. Commonsense suggests that none of them would have wanted a sudden revelation of the suppressed material at the trial. It is pointless to try to add up the number of failures which amount to material irregularities. It is sufficient to say that cumulatively the failures amount to a material irregularity which, on its own, would have undoubtedly have required us to quash Miss Ward's conviction. The application of the proviso would have been out of the question. On the scientific case deployed against her Miss Ward did not have a fair trial. Our law does not tolerate a conviction to be secured by ambush.

The Duty of Impartiality

The Court of Appeal in *Ward* also set out the gross departures from impartiality (ibid at page 51):

For the future it is important to consider why scientists acted as they did. For lawyers, jurors and judges a forensic scientist conjures up the image of a man in a white coat working in a laboratory, approaching his task with cold neutrality, and dedicated only to the pursuit of scientific truth. It is a sombre thought that the reality is sometimes different. Forensic scientists may become partisan. The very fact that the police seek their assistance may create a relationship between the police and the forensic scientists. And the adversarial character of the proceedings tend to promote this process. Forensic scientists employed by the government may come to see their function as helping the police. They may lose their objectivity. That is what must have happened in this case.

The Twin Duties of Impartiality and Disclosure

The Court of Appeal in *Ward* summarised its conclusions as follows (ibid at page 52):

Recognising that the Royal Commission on Criminal Justice will no doubt consider the subject of scientific evidence in criminal trials in depth, we propose to limit our observations to the lessons to be learnt to two matters which we regard as of critical importance.

First, we have identified the cause of the injustice done to Miss Ward on the scientific side of the case as stemming from the fact that three senior forensic scientists at RARDE regarded their task as being to help the police. They became partisan. It is the clear duty of government forensic scientists to assist in a neutral and impartial way in criminal investigations. They must act in the cause of justice. That duty should be spelt out to all engaged in forensic services in the clearest terms. We trust that this judgment has assisted a little in that exercise.

Secondly, we believe that the surest way of preventing the misuse of scientific evidence is by ensuring that there is a proper understanding of the nature and scope of the prosecution's duty of disclosure. In our view there was an imperfect understanding of the position in 1974.

References