High Court of Australia

CHAMBERLAIN v. THE QUEEN (No.2) (1984) 153 CLR 521

Criminal Law - Evidence - Federal Court

COURT
High Court of Australia
Gibbs C.J.(1), Mason(1), Murphy(2), Brennan(3) and Deane(4) JJ.
HRNG
1983, November 28-30; 1984, February 22. #DATE 22:2:1984
JUDGE1
1984, February 22.

The following written judgments were delivered:-

GIBBS C.J. AND MASON J. The applicants, Alice Lynne Chamberlain and Michael Leigh Chamberlain, are wife and husband. By an indictment presented to the Supreme Court of the Northern Territory, Mrs. Chamberlain was charged that on 17 August 1980 at Ayers Rock in the Northern Territory she did murder Azaria Chantel Loren Chamberlain. By the second count of the indictment, Mr. Chamberlain was charged as an accessory after the fact, the particulars being that between 17 August 1980 and 16 December 1981 at Ayers Rock, Alice Springs and other places in the Northern Territory he did receive or assist another person, namely Alice Lynne Chamberlain, who to his knowledge was guilty of an offence against the law of the Territory, namely the offence of murdering Azaria Chantel Loren Chamberlain at Ayers Rock on 17 August 1980, in order to enable the said Alice Lynne Chamberlain to escape punishment. Each pleaded not guilty but the jury found both to be guilty as charged. They appealed against their convictions to the Full Court of the Federal Court. That Court (Bowen C.J., Forster and Jenkinson JJ.) dismissed the appeals. They now apply for special leave to appeal against that decision. (at p523)

2. A question that arises at the outset of the case is whether the Full Court of the Federal Court had power to allow the appeal on the ground that the verdicts were unsafe, unsatisfactory or dangerous. A majority of the Full Court in the present case (Bowen C.J. and Forster J.), following an earlier decision of the Federal Court in Duff v. The Queen (1979) 39 FLR 315; 28 ALR 663 , held that such a ground of appeal could not be entertained. The third member of the Court, Jenkinson J., said that he was "free of any such doubt as to the guilt of the appellants as might justify a conclusion that the verdicts were unsafe or unsatisfactory" and that he did not himself entertain any reasonable doubt of the guilt of either appellant. He therefore considered it unnecessary to express, and refrained from expressing, any concluded opinion as to whether the decision in Duff v. The Queen on this point was correct. (at p524)

3. Immediately before the Federal Court of Australia Act 1976 (Cth) came into operation, appeals by persons convicted on indictment before the Supreme Court of the Northern Territory lay to the High Court. Section 47(1) of the Northern Territory Supreme Court Act 1961 (Cth), as amended, provided as follows:

> "A person convicted on indictment before the Supreme Court may appeal to the High Court -
> (a) against his conviction on any ground of appeal that involves a question of law alone;
> (b) with the leave of the Supreme Court or a Judge, on any ground of appeal that involves a question of fact alone or a question of mixed law

and fact;

(c) with the leave of the High Court, on any ground of appeal mentioned in the last preceding paragraph, or on any other ground that appears to the High Court to be a sufficient ground of appeal; and

(d) with the leave of the High Court, against the sentence passed on his conviction, unless the sentence is one fixed by law,

and the High Court has jurisdiction to hear and determine the appeal."

That section was repealed by the Northern Territory Supreme Court Amendment Act 1976 (Cth) which took effect on the day on which the Federal Court of Australia Act came into operation. By s. 24(1) to (4) of the Federal Court of Australia Act it is provided as follows:

"(1) Subject to this section and to any other Act, whether passed before or after the commencement of this Act (including an Act by virtue of which any judgments referred to in this section are made final and conclusive or not subject to appeal), the Court has jurisdiction to hear and determine -

(a) appeals from judgments of the Court constituted by a single Judge;

(b) appeals from judgments of the Supreme Court of a Territory; and

(c) in such cases as are provided by any other Act, appeals from judgments of a court of a State, other than a Full Court of the Supreme Court of a State, exercising federal jurisdiction.

(2) On or after the commencing day an appeal shall not be brought to the High Court from a judgment of the Supreme Court of a Territory except -

(a) in accordance with special leave given by the High Court on or after the commencing day; or

(b) in accordance with leave or special leave given by the High Court or the Supreme Court before the commencing day.

(3) Subject to sub-section (4), an appeal does not lie to the Court from a judgment of the Supreme Court of a Territory given before the commencing day.

(4) Where, immediately before the commencing day, a person has a right to appeal (otherwise than in accordance with leave or special leave referred to in sub-section (2)), or to seek leave or special leave to appeal, to the High Court from a judgment of the Supreme Court of a Territory given before the commencing day, that right is, by force of this section, converted into a corresponding right to appeal, or to seek leave or special leave to appeal, to the Court."

Section 25(1) provides that the appellate jurisdiction of the Court shall, subject to immaterial exceptions, be exercised by a Full Court. The powers of the court on appeal are described in ss. 27 and 28 of the Federal Court of Australia Act. Section 27 provides as follows:

"In an appeal, the Court shall have regard to the evidence given in the proceedings out of which the appeal arose, and has power to draw inferences of fact and, in its discretion, to receive further evidence, which evidence may be taken on affidavit, by oral examination before the Court or a Judge or otherwise in accordance with section 46."

Section 28(1) provides as follows:

"Subject to any other Act, the Court may, in the exercise of its appellate jurisdiction -

(a) affirm, reverse or vary the judgment appealed from;

(b) give such judgment, or make such order, as, in all the circumstances, it thinks fit, or refuse to make an order;

(c) set aside the judgment appealed from, in whole or in part, and remit the proceeding to the court from which the appeal was brought for further hearing and determination, subject to such directions as the Court thinks

fit;
(d) set aside a verdict or finding of a jury in a civil proceeding, and enter judgment notwithstanding any such verdict or finding;
(e) set aside the verdict and judgment in a trial on indictment and order a verdict of not guilty or other appropriate verdict to be entered;
(f) grant a new trial in any case in which there has been a trial, either with or without a jury, on any ground upon which it is appropriate to grant a new trial; or (g) award execution from the Court or, in the case of an appeal from another court, award execution from the Court or remit the cause to that other court, or to a court from which a previous appeal was brought, for the execution of the judgment of the Court."

Section 28(5) provides as follows:

"The powers of the Court under sub-section (1) in an appeal (whether by the Crown or by the defendant) against a sentence in a criminal matter include the power to increase or decrease the sentence or substitute a different sentence." (at p526)

4. Duff v. The Queen (1979) 39 FLR 315; 28 ALR 663 was a decision on the power of the Federal Court on an appeal from the Supreme Court of the Australian Capital Territory. There is however no possible ground of distinction between appeals from that Court and appeals from the Supreme Court of the Northern Territory. Before the enactment of the Federal Court of Australia Act, appeals from the Supreme Court of the Australian Capital Territory lay to the High Court, under s. 52 of the Australian Capital Territory Supreme Court Act 1933 (Cth), as amended, a section which was indistinguishable in effect from s. 47 of the Northern Territory Supreme Court Act. Section 52, like s. 47, was repealed on the day on which the Federal Court of Australia Act came into operation: see Australian Capital Territory Supreme Court Amendment Act 1976 (Cth). In Collins v. The Queen (1980) 31 ALR 257, at p 261 , it was correctly assumed that the decision in Duff v. The Queen was equally applicable to appeals from the Northern Territory. (at p526)

5. The reasons given by the learned judges who constituted the Full Court in Duff v. The Queen for reaching their conclusion that the powers of the Federal Court in criminal appeals were limited in the way that we have mentioned appear at pp. 670-675 of the report and may be summarized as follows. The powers of a Court of Criminal Appeal to set aside a jury verdict depend on the statute creating the appellate jurisdiction. No grounds upon which the criminal appellate jurisdiction of the Federal Court may be exercised are specified in the Federal Court of Australia Act. It is clear that the appellate powers of the Federal Court are not limited to the hearing and determination of an appeal in the strict sense, and the grounds upon which it may allow an appeal therefore cannot be restricted to those which govern the determination of a strict appeal. The grounds upon which, at common law, new trials may be granted after judgments entered on jury verdicts govern the determination of an application for a new trial under s. 28(1)(f), and the words "on any ground upon which it is appropriate to grant a new trial" which appear in that paragraph (and which do duty both for criminal and civil appeals) refer to the grounds on which the verdict may be set aside as well as to the considerations to be taken into account in deciding whether a new trial should be ordered or whether the conviction should simply be quashed. Since it would be anomalous if the grounds for setting aside a verdict and judgment varied according to the relief which was sought or allowed, "the criteria for setting aside a jury verdict which are furnished by the new trial grounds are equally appropriate to govern the exercise of the power to set aside a jury verdict and to substitute another verdict under s. 28(1)(e)" (1979) 39 FLR, at p 329; 28 ALR, at p 674 . The grounds of appeal under the common statutory form (i.e. the common form of the statutes governing appeals in the Australian

States, which were based on s. 4(1) of the Criminal Appeal Act 1907 (U.K.)) are not identical with "the new trial grounds of appeal". The conclusion of the Court was expressed as follows (1979) 39 FLR, at p 330; 28 ALR, at p 675 :

> "The limit upon the grounds available may be of some significance in the present case, for it would not avail the appellant to persuade this court to a view that it is unsafe or unsatisfying to allow a verdict of guilty to stand on the evidence of identification of the appellant as the assailant . . . if the jury could properly have found the verdict, viewing the whole of the evidence reasonably and appreciating the onus and standard of proof . . ."

Again their Honours said (1979) 39 FLR, at p 340; 28 ALR, at p 683 :

> "It is not sufficient for the appellant to show that his conviction was 'unsafe' as that term is used in Davies and Cody (1937) 57 CLR 170 . Narrower grounds must be relied on, and it must be shown that the identification evidence was inadmissible or that a judicial discretion to reject the evidence miscarried or that the summing-up was inadequate." (at p527)

6. Whether this conclusion is correct depends on whether or not it was right to hold that the failure of the Federal Court of Australia Act to specify the grounds on which criminal appeals might be allowed meant that the only grounds available were those on which a new trial might be granted at common law. The power to quash a conviction and grant a new trial of a criminal case at common law was very limited. It was held by the Privy Council in Reg. v. Bertrand (1867) LR 1 PC 520 that no power existed to grant a new trial to a person convicted of a felony. Cases of misdemeanour could however be commenced in the Court of Queen's Bench by information, or removed into that court by certiorari, and in such cases it was possible to order a new trial, as Professor Friedland explains in a learned article in the Law Quarterly Review (vol. 84 (1968) 185, at pp. 202 et seq.). Although new trials were granted in such cases at least from the seventeenth century, some doubt seems to have persisted on the point, for in Reg. v. McLeod (1890) 11 NSWR(L) 218, at pp 231-232 Windeyer J. said:

> "It is said that the conviction may be upheld, because a new trial will not be granted in a civil case where evidence has been improperly admitted, if the Court sees that a contrary verdict would have been so demonstrably wrong that a new trial would have been granted. I am of the opinion that this rule, which is in the nature of a proviso to the general rule, that the Court will grant a new trial in a civil case where evidence has been improperly admitted, cannot be applied on the criminal side of the Court, where no power of granting new trials exists."

In Reg. v. Berger (1894) 1 QB 823 , where a defendant was found guilty on an indictment preferred in the Queen's Bench Division for obstructing a highway, the question whether the court had jurisdiction to entertain an application for a new trial on the grounds of misdirection, misreception of evidence and verdict against the evidence, was apparently still thought open to argument, but it was held that the court could grant a new trial after a conviction for misdemeanour on those grounds. The position at the beginning of the twentieth century was described by Professor Friedland as follows (Law Quarterly Review, vol. 84, p. 202):

> "Before the Criminal Appeal Act 1907 abolished the practice, a new trial could be obtained after a conviction for a misdemeanour if the proceeding has been instituted or removed by certiorari into a Court of Queen's Bench."

Professor Friedland went on to give an account of the procedural reasons which prevented the concept of new trials from developing as fully in the criminal law as in civil actions, and to explain that the procedure could have had no application for most criminal cases (see at p. 205). It would seem to us most unlikely that in 1976 the Parliament intended to confer on the Federal Court an appellate power whose extent was to be determined by reference to the rule of the common law which allowed new trials to be had in certain criminal cases - a rule which was limited in scope and rarely applied and which had been obsolete since the Courts of Criminal Appeal had been established decades before. It would seem equally unlikely that it was the intention of the Parliament that the common law rules relating to the grant of new trials in civil actions should govern criminal appeals in the new Federal Court. The true position, in our opinion, is that when the Parliament departed from the usual legislative model, and failed to state the grounds or principles on which the Federal Court is to determine criminal appeals, it conferred on that court a wide discretion to ensure that justice is done in criminal cases. The grant of a general appeal by s. 24(1)(b) of the Federal Court of Australia Act was intended to enable the Full Court of the Federal Court to "entertain any matter, however arising, which shows that the decision of the Court appealed from is erroneous": cf. Ah Yick v. Lehmert (1905) 2 CLR 593, at p 601 . Since it cannot be supposed that the Parliament intended to make available to the citizens of the Territories an inferior sort of justice, or to require that the Federal Court should affirm a criminal conviction notwithstanding that it had reached the conclusion that a miscarriage of justice had occurred, it must be concluded that the power of the Federal Court, unfettered in terms as it is, was intended to extend at least as widely as those of the State Courts of Criminal Appeal, and thus to enable the Federal Court to set aside a verdict whenever it is of opinion that there has been a miscarriage of justice. (at p529)

7. We cannot agree, although it probably does not matter, that the grounds for setting aside the verdict of a jury are to be found in par. (f) of s. 28(1). The power to set aside jury verdicts is given by par. (d), in the case of civil actions, and par. (e), in the case of trials on indictment. In both cases the power is conferred without restriction, and is not limited to any particular grounds. However, if, as their Honours thought in Duff v. The Queen (1979) 39 FLR 315; 28 ALR 663 , the words "on any ground upon which it is appropriate to grant a new trial" in par. (f) state the criteria for setting aside a jury's verdict, they are no less wide than the words of s. 47 of the Northern Territory Supreme Court Act and s. 52 of the Australian Capital Territory Supreme Court Act, and could not have been intended to confer on the Federal Court powers narrower than those which the High Court formerly possessed by virtue of those sections. Indeed the provisions of s. 24(4), under which existing rights to appeal, or to seek leave or special leave to appeal, to the High Court, were converted into corresponding rights to appeal, or to seek leave or special leave to appeal, to the Federal Court, are inconsistent with the notion that in the conversion the right to appeal, or to seek leave or special leave to appeal, was somehow reduced in efficacy. In Duff v. The Queen the court said (1979) 39 FLR, at p 328; 28 ALR, at p 673 , that the judgment of this Court in Stokes v. The Queen (1960) 105 CLR 279 implicitly recognized that the common law rules as to the granting of new trials were appropriate on an appeal against a conviction on indictment before the Supreme Court of the Australian Capital Territory. It was said in the latter case (1960) 105 CLR, at pp 284-285 that "the decision of the application must depend upon the general rule that if an error of law or a misdirection or the like occurring at the trial is of such a nature that it could not reasonably be supposed to have influenced the result a new trial need not be ordered". No doubt that rule is analogous to the rule of the common law which governs the grant of new trials from jury verdicts in civil cases and which was discussed in the passage in Balenzuela v. De Gail (1959)

101 CLR 226, at pp 234-235 , mentioned by the Court in Duff v. The Queen (1979) 39 FLR, at pp 328-329; 28 ALR, at p 673 . However the same principle is applied by the State courts in deciding whether there has been a substantial miscarriage of justice within the proviso to the common form statutory provisions, and we do not think that this Court, in stating the principle applicable to criminal appeals, was intending to import the common law rules as to the grant of new trials in civil cases. It is more probable that the Court in Stokes v. The Queen simply regarded the position of the High Court, when acting as a Court of Criminal Appeal from the Territories, as being the same as that of a Court of Criminal Appeal in a State. (at p530)

8. Under the statutory provisions in the common form modelled on s. 4(1) of the Criminal Appeal Act 1907 (U.K.), a Court of Criminal Appeal in a State is required to allow an appeal if it considers that the verdict is unreasonable, or cannot be supported by the evidence, or that the judgment of the trial court should be set aside on the ground that there was a wrong decision on a question of law, or that on any ground there was a miscarriage of justice, subject to the proviso that the court may, notwithstanding that it is of the opinion that the point raised in the appeal might be decided in favour of the appellant, dismiss the appeal if it considers that no substantial miscarriage of justice has actually occurred. By an amendment made to s. 4(1) in 1966, the Court of Criminal Appeal in England was empowered to set aside a verdict on the ground that under all the circumstances of the case it was unsafe or unsatisfactory. Long before that date it had been held in Australia that the Court of Criminal Appeal of a State, acting under the legislation in the common form without amendment, had the power and duty to set aside a verdict which it considered to be unsafe or unsatisfactory. For if the court considers that a verdict is unsafe or unsatisfactory it must follow that it would be a miscarriage of justice to allow the verdict to stand. In McKay v. The King (1935) 54 CLR 1, at p 10 , Dixon J. said that a conviction based on confessional evidence which might appear sufficient to submit to a jury "would doubtless be quashed if it appeared that the jury had been allowed or encouraged to act upon views of it which are unsafe". In Davies and Cody v. The King (1937) 57 CLR, at p 180 where a verdict was set aside because the evidence of identification was regarded as unsatisfactory, the Court said:

> "From the beginning, that court (the English Court of Criminal Appeal) has acted upon no narrow view of the cases covered by its duty to quash a conviction when it thinks that on any ground there was a miscarriage of justice, a duty also imposed upon the Supreme Court of Victoria . . . It has consistently regarded that duty as covering not only cases where there is affirmative reason to suppose that the appellant is innocent, but also cases of quite another description. For it will set aside a conviction whenever it appears unjust or unsafe to allow the verdict to stand because some failure has occurred in observing the conditions which, in the court's view, are essential to a satisfactory trial, or because there is some feature of the case raising a substantial possibility that, either in the conclusion itself, or in the manner in which it has been reached, the jury may have been mistaken or misled." (at p531)

9. In Raspor v. The Queen (1958) 99 CLR 346, at pp 350-352 and Plomp v. The Queen (1963) 110 CLR 234, at pp 244, 250 , it was recognized that a court of criminal appeal may interfere with a verdict which is unsafe or unsatisfactory even if there is sufficient evidence to support it as a matter of law, and even though there has been no misdirection, erroneous reception or rejection of evidence, and no other complaint as to the course of the trial. In other words, even if there is some evidence on which a reasonable jury might be entitled to convict, a Court of Criminal Appeal has the responsibility to consider whether "none the less it would be dangerous in all the circumstances to allow the verdict of guilty to stand": Hayes v. The Queen (1973) 47 ALJR

603, at p 604 . The power and duty of a Court of Criminal Appeal in Australia to set aside a verdict if for any reason it considers that it would be unsafe or dangerous to allow the verdict to stand was well established before the Federal Court of Australia Act was passed. In the light of modern experience such a function is essential, and we cannot believe that the Parliament intended that the Federal Court should be more restricted in determining criminal appeals. (at p532)

10. For these reasons, in our opinion, the Full Court of the Federal Court, on appeal from the Supreme Court of a Territory, has the power and duty to set aside the verdict of a jury in a case where a miscarriage of justice has occurred, including a case where it would be unsafe or dangerous to allow the verdict to stand. The decision to the contrary in Duff v. The Queen was, in our respectful opinion, erroneous. (at p532)

11. In the recent case of Whitehorn v. The Queen (1983) 152 CLR 657 the Court again affirmed that a verdict may be set aside as unsafe and unsatisfactory notwithstanding that there was, as a matter of law, evidence upon which the accused could have been convicted. Dawson J. (1983) 152 CLR, at p 686 (with whom Gibbs C.J. and Brennan J. expressed general agreement on this aspect of the case) said that the question which an appellate court has to decide when called on to consider whether a verdict ought to be set aside because it would be unsafe, unjust or dangerous to allow it to stand is "whether the appellate court thinks that upon the whole of the evidence it was open to the jury to be satisfied beyond reasonable doubt that the accused was guilty". He did not accept the correctness of what was said by Barwick C.J. in Ratten v. The Queen (1974) 131 CLR 510, at p 516 :

> "It is the reasonable doubt in the mind of the court which is the operative factor. It is of no practical consequence whether this is expressed as a doubt entertained by the court itself, or as a doubt which the court decides that any reasonable jury ought to entertain. If the court has a doubt, a reasonable jury should be of a like mind. But I see no need for any circumlocution; as I have said it is the doubt in the court's mind upon its review and assessment of the evidence which is the operative consideration."

Dawson J. said in Whitehorn v. The Queen (1983) 152 CLR, at p 687 :

> "In many cases it may be unnecessary to make such a distinction because a doubt experienced by an appellate court will be a doubt which a reasonable jury ought also to have experienced."

However he went on to point to the important differences between the position of a jury and that of a Court of Criminal Appeal and concluded (1983) 152 CLR, at p 688 :

> "It is far from inconceivable that a court of appeal may, upon the material before it and without regard to the verdict of the jury, entertain the possibility of a doubt itself but may properly conclude that the jury might reasonably have reached a verdict of guilty upon the evidence given at the trial. Where a result may have turned wholly or largely upon questions of credibility or upon competing inferences such may well be the case . . .. A court of criminal appeal should conclude that a verdict is unreasonable or cannot be supported having regard to the evidence if, on the evidence, it considers it to be unsafe or unsatisfactory. The verdict will be unsafe or unsatisfactory if the court of appeal concludes that the jury, acting reasonably, must have entertained a sufficient doubt to have entitled the accused to an acquittal." (at p533)

12. It may at first sight be thought that the opinion expressed by Barwick C.J. in Ratten v. The Queen (1974) 131 CLR, at p 516 as to the powers of a Court of Criminal Appeal was the same as that accepted by the English courts as to the effect of the amended statutory provision. In Reg. v. Cooper (Sean) (1969) 1 QB 267, at p 271 Widgery L.J., giving the judgment of the Court of Appeal, said:

> "However . . . we are indeed charged to allow an appeal against conviction if we think that the verdict of the jury should be set aside on the ground that under all the circumstances of the case it is unsafe or unsatisfactory. That means that in cases of this kind the court must in the end ask itself a subjective question, whether we are content to let the matter stand as it is, or whether there is not some lurking doubt in our minds which makes us wonder whether an injustice has been done. This is a reaction which may not be based strictly on the evidence as such; it is a reaction which can be produced by the general feel of the case as the court experiences it."

That passage was approved by the House of Lords in Stafford v. Director of Public Prosecutions (1974) AC 878, at p 892 . However in Hayes v. The Queen (1973) 47 ALJR, at p 605 , Barwick C.J. said that he did not take the view that the function of a court under the provisions in the common form in force in Australia was the same as that which the Court of Appeal in Reg. v. Cooper (Sean) had decided was to be performed under the amended statute. In Ratten v. The Queen (1974) 131 CLR, at pp 515-516 , he said:

> "This decision (Hayes v. The Queen) may not have disclosed as great a discretion in a court of criminal appeal in Australia, as the decision of the House of Lords in Stafford v. Director of Public Prosecutions has done for the United Kingdom. But the Court's decision is founded on the existence of the function of independent assessment of the evidence by the court of criminal appeal."

It is unnecessary to consider whether the jurisdiction exercised by Courts of Criminal Appeal in Australia is precisely the same as that exercised by the Court of Appeal in criminal cases in England under the amended statute. It seems to us that the proper test to be applied in Australia is, as Dawson J. said, to ask whether the jury, acting reasonably, must have entertained a sufficient doubt to have entitled the accused to an acquittal, i.e. must have entertained a reasonable doubt as to the guilt of the accused. To say that the Court of Criminal Appeal thinks that it was unsafe or dangerous to convict, is another way of saying that the Court of Criminal Appeal thinks that a reasonable jury should have entertained such a doubt. The function which the Court of Appeal performs in making an independent assessment of the evidence is performed for the purpose of deciding that question. The responsibility of deciding upon the verdict, whether of conviction or acquittal, lies with the jury and we can see no justification, in the absence of express statutory provisions leading to a different result, for an appellate tribunal to usurp the function of the jury and disturb a verdict of conviction simply because it disagrees with the jury's conclusion. We do agree that in many cases the distinction will be of no practical consequence; it will be merely a matter of words. That will not generally be the case where questions of credibility are decisive. However, whether it matters from a practical point of view or not in a particular case, it is not unimportant to observe the distinction - the trial is by jury, and (absent other sources of error) the jury's verdict should not be interfered with unless the Court of Criminal Appeal concludes that a reasonable jury ought to have had a reasonable doubt. (at p534)

13. The final question of law that arises is whether, in a case where the evidence is circumstantial, each fact on which an inference is sought to be

based must itself be proved beyond a reasonable doubt. In considering this matter it is necessary to keep distinct a number of questions which tend to be confused. In the first place, the question arises whether the proper method of approach to the facts is for the jury to consider each item of evidence separately, and to eliminate it from consideration unless satisfied about it beyond reasonable doubt. Support for the view that that is the correct approach is to be found in an article on "Circumstantial Evidence" by Mr. T. C. Brennan K.C. which appears in the Australian Law Journal, vol. 4 (1930), p. 106, where the learned author, in the course of discussing a criminal trial held two or three years before in Victoria, said, at p. 108:

> "Mr. Acting Justice Dixon (as he then was), told the jury that the proper method of approach to the different facts was to take each one separately, and to ask 'are we satisfied beyond reasonable doubt about (1)? If yes', continued his Honour, 'put it on one side for further consideration with the other facts; if no, put it out of your mind altogether. Then go on to consider (2) in the same way.'"

What Dixon A.J. (as he then was) said, if the report is correct, may have been appropriate in the circumstances of the particular case, but it is clearly not right as a general rule. The duty of the jury is to consider all the facts together, at the conclusion of the case. (at p535)

14. We have no doubt that the position is correctly stated in the following passage in Reg. v. Beble (1979) Qd R 278, at p 289 , that "It is not the law that a jury should examine separately each item of evidence adduced by the prosecution, apply the onus of proof beyond reasonable doubt as to that evidence and reject if they are not so satisfied". At the end of the trial the jury must consider all the evidence, and in doing so they may find that one piece of evidence resolves their doubts as to another. For example, the jury, considering the evidence of one witness by itself, may doubt whether it is truthful, but other evidence may provide corroboration, and when the jury considers the evidence as a whole they may decide that the witness should be believed. Again, the quality of evidence of identification may be poor, but other evidence may support its correctness; in such a case the jury should not be told to look at the evidence of each witness "separately in, so to speak, a hermetically sealed compartment"; they should consider the accumulation of the evidence: cf. Weeder v. The Queen (1980) 71 Cr App R 228, at p 231 . (at p535)

15. Similarly, in a case depending on circumstantial evidence, the jury should not reject one circumstance because, considered alone, no inference of guilt can be drawn from it. It is well established that the jury must consider "the weight which is to be given to the united force of all the circumstances put together": per Lord Cairns, in Belhaven and Stenton Peerage (1875) 1 App Cas 278, at p 279 , cited in Reg. v. Van Beelen (1973) 4 SASR 353, at p 373 ; and see Thomas v. The Queen (1972) NZLR 34, at pp 37-38, 40 and cases there cited. In Plomp v. The Queen (1963) 110 CLR 234 it was argued that the motives of the accused could not be considered until it was shown by evidence that in some physical way his actions were responsible for his wife's death. The Court rejected this argument. Dixon C.J. said (1963) 110 CLR, at p 242 :

> "All the circumstances of the case must be weighed in judging whether there is evidence upon which a jury may reasonably be satisfied beyond reasonable doubt of the commission of the crime charged. There may be many cases where it is extremely dangerous to rely heavily on the existence of a motive, where an unexplained death or disappearance of a person is not otherwise proved to be attributable to the accused; but all such considerations must be dealt with on the facts of the particular case. I cannot think, however, that in a case where the prosecution is based on circumstantial evidence any part of the circumstances can be put on one side as relating to motive only and therefore not to be weighed as part of

the proofs of what was done." (at p536)

16. It follows from what we have said that the jury should decide whether they accept the evidence of a particular fact, not by considering the evidence directly relating to that fact in isolation, but in the light of the whole evidence, and that they can draw an inference of guilt from a combination of facts, none of which viewed alone would support that inference. Nevertheless the jury cannot view a fact as a basis for an inference of guilt unless at the end of the day they are satisfied of the existence of that fact beyond reasonable doubt. When the evidence is circumstantial, the jury, whether in a civil or in a criminal case, are required to draw an inference from the circumstances of the case; in a civil case the circumstances must raise a more probable inference in favour of what is alleged, and in a criminal case the circumstances must exclude any reasonable hypothesis consistent with innocence (see Luxton v. Vines (1952) 85 CLR 352, at p 358 ; and Barca v. The Queen (1975) 133 CLR 82, at p 104). The statement by Lord Wright in Caswell v. Powell Duffryn Associated Collieries, Ld. (1940) AC 152, at p 169 , that "There can be no inference unless there are objective facts from which to infer the other facts which it is sought to establish" is obviously as true of criminal as of civil cases. The process of reasoning in a case of circumstantial evidence gives rise to two chances of error: "first from the chances of error in each fact or consideration forming the steps and second from the chance of error in reasoning to the conclusion": Morrison v. Jenkins (1949) 80 CLR 626, at p 644 . It seems to us an inescapable consequence that in a criminal case the circumstances from which the inference should be drawn must be established beyond reasonable doubt. We agree with the statement in Reg. v. Van Beelen (1973) 4 SASR, at p 379 , that it is "an obvious proposition in logic, that you cannot be satisfied beyond reasonable doubt of the truth of an inference drawn from facts about the existence of which you are in doubt". (at p536)

17. In Reg. v. Van Beelen, which was a case of murder, the direct evidence was insufficient without certain scientific evidence to permit the case to be left to the jury. The scientific evidence was that certain trace materials (fibres, foraminifera, paint chips and hairs) found on or about the deceased girl were similar to other trace materials found on or about the accused. For example, fibres found on the girl's singlet were said to be similar to those from the accused's pullover. The Court of Criminal Appeal of South Australia had to consider two questions: first whether there was sufficient evidence to support a conviction, and, secondly, whether there had been a misdirection in the summing up. The first question depended on whether it was open to the jury to infer, from the fact that in a number of instances the trace materials on the deceased and on the accused could have originated from the same source, that they did so originate, notwithstanding that the individual identity of any one set of trace material, considered in isolation, was not proved beyond reasonable doubt. The Court held that the inference could be drawn by the jury. The second question was whether it was correct to direct the jury in effect that they could draw an inference of guilt from primary evidence as to whose existence they were in doubt. The Court held that it was a misdirection to instruct the jury in that way. The Court said (1973) 4 SASR, at p 374 :

> "But the requirement of proof beyond reasonable doubt relates to the final stage in the process; the jury is not, in our view, required to split up the various stages in the process of reasoning leading to the conclusion of guilt beyond reasonable doubt and to apply some particular standard of proof to each of those steps . . . and to instruct them to do so would, in our view, be confusing and possibly misleading and would tend to the imposition of an artificial and scholastic strait-jacket on their deliberations.
>
> That, of course, does not mean that they ought to be encouraged or

> permitted to draw inferences of guilt from doubtful facts. As a matter of common sense it is impossible to infer guilt beyond reasonable doubt from facts which are in doubt. There is a clear distinction between drawing an inference of guilt from a combination of several proved facts, none of which by itself would support the inference, and drawing an inference of guilt from several facts whose existence is in doubt. In the first place the combination does what each fact taken in isolation could not do; in the second case the combination counts for nothing." (at p537)

18. It is clear that the first part of this statement was not intended to contradict the second. It refers only to the manner in which the jury should be directed. It is quite correct to say that the jury are not required to split up the various stages in the process of their reasoning; they are not required to make findings on questions of primary fact, and jurors who agree in reaching the same ultimate conclusion may nevertheless disagree as to what evidence is to be accepted, or as to what inferences are to be drawn from evidence which they do accept. However that does not mean that the jury may draw an inference of guilt from a fact which is not proved beyond reasonable doubt. In Reg. v. Van Beelen, the Court went on to say (1973) 4 SASR, at p 375 :

> "We think, as we shall develop later, that the jury should be told that they can draw inferences only from facts which are clearly proved, but further than that it is neither necessary nor desirable to go. There may not be much difference between telling them that and telling them that they can draw inferences only from facts proved beyond reasonable doubt, but there is authority in favour of the first proposition and authority against the necessity for the second proposition. Of course we do not say that it would be a misdirection to tell the jury that they can draw inferences only from facts which are proved beyond reasonable doubt." (at p538)

19. Sir Richard Eggleston in Evidence, Proof and Probability, 2nd ed. (1983), at p. 122, expresses the view that this statement is erroneous. With all respect we do not agree with the criticism of the learned author, but it must be understood that the Court was intending to say that inferences cannot be drawn from facts that remain doubtful at the end of the jury's consideration, and did not mean that facts which, viewed in isolation, seem doubtful must be disregarded. However, in our opinion, it must follow from the reasoning in Reg. v. Van Beelen that the jury can draw inferences only from facts which are proved beyond reasonable doubt. The Court in that case shrank from that logical conclusion, and referred instead to "facts which are clearly proved", only in deference to the authority of Reg. v. Grant (1964) SASR 331 , a decision which bound them but does not bind this Court. (at p538)

20. As the Court in Reg. v. Van Beelen recognized (1973) 4 SASR, at p 379 there is little direct authority for the proposition that primary facts from which an inference of guilt is to be drawn must themselves be proved beyond reasonable doubt. In Moss v. Baines (1974) WAR 7, at p 11 Burt J. accepted as correct the submission that "every fact necessary to be proved to sustain proof beyond reasonable doubt of every element of the offence charged must itself be proved beyond reasonable doubt". Perhaps some support for the same view is to be found in Reg. v. Stuckey (1959) 76 WN (NSW) 560 . Irrespective of authority, for the reasons we have given, we consider that in principle that view is correct. If McEndoo v. The Queen (1980) 5 ACrimR 52 and Carn v. The Queen (1982) 5 ACrimR 466 decide the contrary we cannot accept them as correct. In the United States there is a conflict of authority on the question, and we do not share Wigmore's apparent preference for the view that it is only the whole issue (or the elements of the offence) that must be

proved beyond reasonable doubt (Wigmore on Evidence, 3rd ed. (1940), vol. IX, at p. 324). (at p539)

21. In the present case we have indicated that we would not grant special leave to appeal on the grounds which relate to suggested misdirections. We are however concerned with the questions that we have just discussed because, in deciding whether the evidence as a whole is capable of safely sustaining an inference of guilt, it will be necessary to consider what were the primary facts of which the jury were entitled to be satisfied beyond reasonable doubt. Having regard to the conclusion which we ultimately reach, this final question which we have discussed may not be crucial in the present case. (at p539)

22. It now becomes necessary to refer to the evidence to which these principles must be applied in the present case. At the time of the alleged crime Mr. and Mrs. Chamberlain were aged thirty-eight and thirty-four respectively. They were persons of good character; Mr. Chamberlain was an ordained pastor of the Seventh Day Adventist Church and (as is relevant to mention) both of them appear to have held strongly to their faith. Mrs. Chamberlain appears from the evidence to have been a devoted and happy mother, and to have been in good health; her obstetrician observed no signs of post-natal depression. On 16 August 1980 they arrived at Ayers Rock, in the course of a holiday journey by motor car to Central Australia. With them were their two sons - Aiden, aged six years and ten months, and Reagan, aged four years and four months - and their daughter, Azaria, a normal, healthy baby two months old. The Chamberlains pitched their tent in a camping area where a number of other persons, hitherto strangers to them, were also camped. The Chamberlains' tent was about 20 or 30 metres to the east of a barbecue area which provided cooking facilities for the campers. The entrance to the tent faced the barbecue area. The Chamberlains' Torana car was parked on the southern side of the tent, close to it, and also facing towards the barbecue area. At about eight o'clock on the evening of 17 August Mr. and Mrs. Chamberlain, Aiden and Azaria were at the barbecue for the purpose of having their evening meal. Mrs. Chamberlain was nursing Azaria and seemed happy and cheerful. Reagan was in the tent, in bed and apparently asleep. Two other campers, Mr. and Mrs. Lowe, were also at the barbecue area, and both saw Azaria; at the trial it was common ground that the baby was then alive. Mrs. Chamberlain, carrying Azaria and followed by Aiden, left the barbecue area and walked in the direction of the tent, intending to put both children to bed. Her evidence as to what then occurred was as follows. She placed the baby, who was asleep, in a bassinet in the tent and tucked her under the blankets. Aiden said that he was still hungry, so she went to the car and got a tin of baked beans, went back to the tent and then, with Aiden, returned to the barbecue area. There is no doubt that she did return to the barbecue area, accompanied by Aiden and carrying the tin of beans and a tin opener, about five or ten minutes after she had left. She seemed normal and quite composed. No one saw any blood on her clothes or her person. (at p540)

23. The Crown case is that during this short absence from the barbecue area, Mrs. Chamberlain took Azaria into the car, sat in the front passenger seat and cut the baby's throat. According to the Crown, the baby's dead body was probably left in the car (possibly in a camera bag) and was later that evening buried in the vicinity by Mr. and Mrs. Chamberlain. (at p540)

24. Soon after Mrs. Chamberlain had returned to the barbecue area she again commenced to walk in the direction of the tent. According to the case for the defence, and according to some of the witnesses for the prosecution, she did so because Mr. Chamberlain had heard the cry of a baby from the tent. If the cry was that of Azaria, it is obvious that the Crown case cannot succeed. It is convenient to state first the account given in evidence by Mrs. Lowe, who had met the Chamberlains only that night, had no association of any kind with them, and obviously had no motive to tell anything but the truth, although her

evidence of course could have been mistaken. Mrs. Lowe was asked what happened after Mrs. Chamberlain had returned to the barbecue with the can of beans, and gave this evidence:

> "Well she was just standing there. I heard the baby cry, quite a serious cry but not being my child I didn't sort of say anything. Aiden said: 'I think that's bubbie crying', or something similar. Mike (Mr. Chamberlain) said to Lindy (Mrs. Chamberlain): 'Yes, that was the baby, you better go and check.' Lindy went immediately to check. I saw her walk along the same footpath that they'd been on. What happened next? . . . She was in the area on that footpath closest to where the car and tent was, only inside the railings, and yelled out the cry: 'That dog's got the baby.'"

Mrs. Lowe said that the cry which she first heard definitely came from the tent; and that she was positive that it was the cry of a small baby and not of a child. The cry was loud and sharp but seemed to stop suddenly. Mr. Lowe did not hear the baby's cry; he said that he was heavily engaged in conversation. He said that Mr. Chamberlain said to his wife: "Was that the baby?", that Mrs. Chamberlain went to check and that when she was about 5 yards away she cried out: "That dog's got my baby." Another camper, Mrs. West, was at the time in her tent which was near to that of the Chamberlains'. She heard from the direction of the Chamberlains' tent the growl of a dog and then, fairly soon afterwards (or, as she also said, five or ten minutes later), she heard Mrs. Chamberlain cry out: "My God. My God. A dingo has got my baby." Her husband, Mr. West, also heard the growl of a dog. (at p541)

25. The night was dark, but there was a yellow 100-watt flood lamp mounted on an upright near the barbecue area which illuminated the front of the tent and the car; the witnesses differed as to whether the effect of the lamp was to provide strong light or very poor light at and in the tent. However, people standing at the barbecue area might not have been able to see a dingo moving near the tent since their vision would have been obscured by the railings mentioned by Mrs. Lowe in her evidence, which were between the tent and the barbecue area, and by some low vegetation near them. (at p541)

26. Mr. Lowe described in his evidence what happened immediately after Mrs. Chamberlain cried out. He said:

> "Well she (Mrs. Chamberlain) chased in a direction where she was pointing where she said a dog had gone, and then she veered back towards the tent and checked the tent to find out whether the child was still in the tent or not, but by this time of course the outburst had . . . raised a hue and cry and Mike and I raced from the barbecue site across to the tent and asked which direction the dog had gone, and we proceeded to search immediately."

The initial search was to the east of the tent, in an area of sand dunes. To make an effective search it was of course necessary to have light. Mrs. West said that Mr. Chamberlain, who seemed very distressed, came running up, patting his pockets and saying that he had lost the keys to the car - she thought that he wanted a torch which was in the car, but in his evidence he said that he needed the keys to switch on the ignition to enable him to use the spotlight. The keys were found later in the evening; Mrs. Chamberlain said that she had put them under a pillow in the tent, because she had no pockets, and that she did not remember her husband asking her for the keys. Someone gave Mr. Chamberlain a torch to enable him to commence the search. Another of the campers, Mr. Haby, said that Mrs. Chamberlain came to his "Kombi" van and said: "A dingo or a dog has taken my baby - have you got a torch? - I need a torch." He asked her how she knew and she replied that she had seen a dog or a dingo coming out of the tent when she was walking to the tent and that she looked in the tent and found that the baby was missing. Mr. Haby said: "Did

you see the dingo-dog carry out the baby?", to which Mrs. Chamberlain replied: "No, it wasn't carrying anything." She told him that she thought the dog had gone in the direction of the sand dune, which Mr. Haby then proceeded to search. It appears that Mr. Haby, like some other witnesses, sometimes used "dog" and "dingo" as synonyms. Soon a large number of persons had joined in the search, including some police and the ranger in charge of the area (Mr. Roff). The baby was not found - her body has never been found. However, during the search a number of tracks apparently made by dingoes or dogs were observed. Mr. Haby found some tracks on the sand dunes to the east of the camp. One track was bigger than the others and easy to follow; it led to a place on the top of the ridge where, in his opinion, the dog or dingo had put something down; he said that it "had left an imprint in the sand which to me looked like a knitted jumper or woven fabric and then it obviously picked it up because it dragged a bit of sand away from the front and kept moving . . .". The impression which he saw in the sand was roughly oval in shape and about 7 inches by 5 or 6 inches in size. Near the imprint on the sand was a drop, which he said, could have been blood or saliva; it was dark in colour but not red. The place where these things were seen was about 100 yards from the tent. Mr Haby showed the imprint to the ranger and a policeman. The ranger, Mr. Roff, gave evidence that he was informed that a track had been found on the crest of a sandhill and he went to see it. He saw a drag mark of about 8 or 10 inches in width and followed it in both directions. He described the mark as follows:

> "Well, it was a shallow drag mark and obviously something had been dragged along, and obviously in that track in areas there was dragging vegetation, leaves and grass material, and there were other points where I formed the impression, an object had been laid down, forming an impression, the pattern of which I related at the time in my mind, and I have had no occasion to change that concept; a pattern very similar to what I would relate or I did relate to a crepe bandage."

In cross-examination he said that the impression could have resembled a mark made by a knitted garment; the object which had been carried seemed to have been quite heavy and there were three areas where it had apparently been put down. Next day he saw the drag mark again; he joined a group of Aboriginals, who were following the tracks of a very large dingo, which they thought might be associated with the drag mark. Constable Morris also saw two sets of drag marks, one deep drag mark, possibly half an inch deep by half an inch wide, and the other a short and very shallow mark about one-eighth of an inch wide. The evidence does not definitely establish whether Messrs. Haby, Roff and Morris were describing the same mark, but the tracks seen by Messrs. Haby and Roff both led near to the Anzac Memorial, and may have been the same. That evening Constable Morris also saw on the right-hand (or southern) side of the tent some dog or dingo tracks that apparently ran eastwards, towards the sand dunes. On the following afternoon he saw tracks (apparently fresh) at the rear of the tent, at its very edge; the tracks could be seen only when one lifted the flap of the tent in the corner in which the bassinet had been standing. On that afternoon Inspector Gilroy saw some large paw prints not only at the rear right-hand corner of the tent, but also at the front, close to the tent - they appeared to be fresh. Mr. Roff saw no dingo tracks near the entrance to the tent on the night of 17 August, although he examined the entrance to the tent particularly to try to discover whether there were any dingo marks. The soil at the entrance was loose and sandy, and it had been disturbed by people who had been walking on it. (at p543)

27. A number of witnesses saw blood in the tent, although no one seems to have made a very thorough inspection of the tent or its contents that night. Most of the witnesses who looked into the tent described what they saw as spots or sprays of blood on blankets and other articles in the tent. Mrs. Lowe said that she saw "a dark red wet pool of blood", about 6 inches by 4 inches

in size; no one else saw such a pool. Mr. Roff, on the other hand, saw no blood at all. The floor of the tent was practically covered by blankets, mattresses, sleeping bags and some other articles, and these were subsequently examined by Dr. Scott, whose evidence on this matter is not challenged. There were three stains of blood, the largest about half an inch across, on one blanket, and a thin smear on another; if Mrs. Chamberlain's evidence is true, these may have been the blankets in which Azaria had been wrapped. There were small quantities of blood on a sleeping bag. There was quite a large area of staining on a floral mattress, some smeared blood on a parka, and a spot of blood on a raincoat. The articles on which blood was found were in various parts of the tent, and no blood was found on any other things that had been in the tent at the time. In particular, there was no blood on the bassinet, which stood in a corner at the rear of the tent, and in which Azaria had allegedly been placed. An examination of the tent itself revealed some very small spots on the flyscreen and the rear window that were thought to be blood, but were not confirmed as such; there was also a spray pattern (which Dr. Scott thought was blood, but not human blood) on the outside of the right-hand (or southern) wall of the tent. No trail of blood was seen leading from the tent. It is common ground that the blood on some at least of the articles in the tent was foetal blood - a term we shall later explain - and was that of Azaria. The explanation suggested by the Crown for the presence of the blood in the tent was that it was transferred blood - in other words that it had come from the person or clothing of Mrs. Chamberlain when she had reentered the tent after having killed the baby in the car. On behalf of the Crown it was submitted that much more blood would have been expected in the tent if a dingo had seized the baby in its jaws and carried it from the tent. On behalf of the accused, however, it was submitted that the teeth of the dingo may have largely occluded the wounds made by its bite if it had held the baby in a firm grip. (at p544)

28. A pair of tracksuit pants, belonging to Mrs. Chamberlain, was subsequently sent by her for dry cleaning at Mount Isa. There were marks on the pants which resembled blood stains and which responded to the appropriate cleaning agent for blood. The marks were on the front and below the knee; the stains, or spots, appeared to be splattered or flicked on, and tapered off in size towards the bottom of the pants. The Crown case was that Mrs. Chamberlain must have been wearing the pants when she committed the murder. The evidence is clear that she was not wearing the pants either when she left the barbecue area carrying the baby or when she returned to it after she had obtained the tin of baked beans. If she killed the baby and was wearing the pants at the time of the murder, she must have donned them in the tent and taken them off again before she returned to the barbecue. She said that she did put the pants on about three-quarters of an hour or an hour after the baby had disappeared, because it was cold, and that she had thereafter worn them for a considerable time. No witness could remember her wearing them that night and Mrs. Whittacker said that during the evening Mrs. Chamberlain had no covering on her legs except socks. Another witness, Mrs. Elston, had, before the trial, made a statement in which she had said that she had seen Mrs. Chamberlain wearing pants some time after ten o'clock, but at the trial she could not remember whether Mrs. Chamberlain had worn the pants. The theory suggested by counsel for the accused was that the blood must have dropped on to the pants while they were lying folded in the tent. There was a conflict of evidence given by forensic experts on the question whether the stains could have been caused by a dingo carrying a bleeding baby, but evidence of that kind is a statement of inference rather than of expert opinion, and depends to some extent on conjecture. (at p545)

29. No witness saw any blood on Mrs. Chamberlain that night. The trackshoes which she was wearing may have had some blood on them but it was not proved that any other article of clothing that she wore that night was blood-stained. In September 1980 she handed the trackshoes to the police at Mount Isa and

said that they had had blood on them but had since been washed and the tests for blood proved negative. Her explanation for the presence of blood was that it must have got on the shoes when she crawled inside the tent. (at p545)

30. After the alarm had been raised, and for the rest of the evening, Mrs. Chamberlain seemed distressed and shocked. For most of the evening, until the Chamberlains departed from the camp site at about midnight, Mrs. Chamberlain was in the company of other campers, who endeavoured to give her comfort. There were two or three occasions on which Mr. and Mrs. Chamberlain went away together - once (or twice) for about ten minutes, and once for about fifteen or twenty minutes. According to their own evidence, they did so to join in the search. No witness who saw them go appears to have thought their actions in any way remarkable, and no one saw either of them carrying anything like the body of a child or any implement for digging. Mr. Chamberlain's movements cannot be accounted for so precisely. However, it is apparent that it must have been very difficult for either Mr. or Mrs. Chamberlain to bury the body of the baby that night. If Mrs. Chamberlain killed the baby, it is most probable that she left the body in the car. If it had been left in or near the tent, it is hard to imagine that it would not have been found - a number of people went into, or looked inside, the tent: Constable Morris did so three times. If the body had been left in the car, there was a great risk that anyone removing it would be seen to do so. By that time a gaslight had been erected near the tent to provide some extra light. Mrs. West remained near the car from the time when the alarm was given until Mr. and Mrs. Chamberlain left the area, and Mrs. Lowe was also there until about 10 p.m., and neither saw anyone remove anything from the car. If Mrs. Chamberlain killed Azaria, the possibilities are that the body was buried that night, or that it was left in Mr. Chamberlain's camera bag in the car and buried on the following day. It is also possible that the body was buried that night, and that the baby's clothes were removed in the camera bag. If the body was buried that night, it is surprising that no one saw Mr. or Mrs. Chamberlain remove it from wherever it was secreted and carry it away; in the circumstances, if either had been carrying any sort of a bundle, or a camera bag, it could hardly have escaped notice. And if the body was buried in the dunes near to the camp - which, as will be seen, is a possibility - it is somewhat surprising, if the burial occurred that night, that the searchers found no sign of the freshly turned earth. If the body was left in the camera bag, it showed considerable sangfroid for Mr. Chamberlain to invite Mrs. Elston, who was a nurse, to accompany him in the Torana when he drove from the camp site to a motel. The question how and when the body was buried is a difficult one to answer, but the evidence shows that there were opportunities for Mr. or Mrs. Chamberlain to have buried the body either on 17 August or on the following day. (at p546)

31. Another difficulty for the Crown is that there would have been little opportunity for Mr. or Mrs. Chamberlain to clean up any obvious blood in the car, or for Mrs. Chamberlain to have cleaned her own hands, which must surely have been blood-stained if she committed the murder. So far as appears, there was no wash basin in the tent. Later in the evening, when the contents of the tent were being packed for the purpose of removal, Mrs. Chamberlain was seen by Mrs. Elston to bring out of the tent an ice cream carton which the witness thought had in it bottle teats, floating in a sterilizing solution, and to pour the solution onto the ground. The Crown suggests that Mrs. Chamberlain might have washed her hands in the carton, but there is no evidence that the solution contained blood; none of the persons who went into the tent noticed that it did. (at p546)

32. Mr. and Mrs. Chamberlain were persuaded to spend the night in a motel. Their belongings were packed, some into a police car and some into the Torana. Eventually Mrs. Chamberlain and the two boys were driven by the police to the motel. Mr. Chamberlain drove to the motel in the Torana, accompanied, as we have said, by Mrs. Elston, who sat in the front passenger seat. Mrs. Elston

saw, in front of the driver's seat, a camera bag which she described as very full - she said that "it looked as if it was almost to its limits". She asked Mr. Chamberlain if he would like her to hold the bag while he was driving but he said "that it was okay, and that he always kept it there, because he kept his cameras in it and when he was driving along he could take pictures of things as he saw them". There is some other evidence that this was in truth his practice. Mrs. Elston helped load the car, and unload it at the motel; she noticed no blood. (at p546)

33. The child Aiden was not called to give evidence. However, according to the evidence of Mrs. Lowe, at some time after the search had begun he said to her that the dog had got the baby in his tummy. Another witness, Mrs. West, said that during the evening she asked Aiden if the dingo had taken the baby, and he replied that it had. (at p547)

34. There were many dingoes in the area and there was evidence that a dingo was physically capable of carrying away a baby. Dingoes are strong and resourceful predatory animals and capable of grasping a baby's head and carrying the baby in that way. Possibly because they had become accustomed to being fed by tourists near Ayers Rock, the dingoes in that area had become surprisingly aggressive and potentially dangerous. Several young children had been bitten by dingoes near Ayers Rock during July and August; indeed, on 16 August, the night before the alleged murder, a boy of nine and an older girl were attacked in separate incidents. On the preceding day, 15 August, a Miss Letsch had had a rather bizarre experience; she was sleeping in the garden of the ranger's house when a dingo first removed her pillow from under her head and later tried to pull a sleeping bag from her feet. Some time before 17 August, the ranger, Mr. Roff, had become so concerned about dingo attacks that he had asked permission from his superiors to shoot dingoes, since, he had said, "children and babies can be considered possible prey". (at p547)

35. Mr. and Mrs. Chamberlain remained at the motel until 19 August. Their behaviour on 18 August has excited comment by counsel for the Crown. They did not join in the search when it was resumed, or inquire about it, but left the motel without saying where they were going. In fact they returned to the camp area where Mr. Chamberlain took some photographs which he sent off to a newspaper. However, on any view there was no possibility that the baby was still alive, and the apparent composure of Mr. and Mrs. Chamberlain might in part be attributed to a resignation which derived from their faith. (at p547)

36. On 19 August Mr. and Mrs. Chamberlain left Ayers Rock to return to their home in Mount Isa. A few days later, on 24 August, the baby's clothes (a jumpsuit, bootees, a singlet and a napkin) were found at a place which is near to the base of Ayers Rock about 5 kilometres from the camp site and which is known to be near to a dingo lair. The singlet was inside out but (according to one witness) inside the jumpsuit, and both were heavily blood-stained. According to the evidence of Mrs. Chamberlain the baby had also been wearing a jacket, but no jacket was found. Soil, and fragments of vegetation, were found on the jumpsuit, and there was scientific evidence which entitled the jury to infer that the clothes had been buried, not near where they were found, but in an area with a different type of soil - one place that answered the description was under bushes on the side of the sand dunes about 100 metres from the camp, but there were other places also with similar soil. There was evidence which might have convinced the jury that the jumpsuit had been rubbed with vegetation; also some traces of vegetation were found on an inner surface, which suggests that the baby was not in the jumpsuit when the vegetation was rubbed on to it. The clothes were damaged - there were some holes in the singlet and the napkin, and there was a large hole in the sleeve of the jumpsuit and what appeared to be a linear cut along the collar of the jumpsuit. Mrs. Chamberlain gave evidence that the clothes were not in this condition when she last saw them on Azaria. There was a conflict of expert

testimony as to the cause of the damage. The Crown called a number of witnesses the effect of whose evidence was that the damage was the result of cutting, possibly by a pair of curved scissors, and that it was not caused by the bite of a dingo. These witnesses included Dr. Brown, a forensic odontologist, Mr. Sims, Senior Lecturer in Forensic Odontology at London Medical College, Professor Chaikin, Head of the School of Textile Technology of the University of New South Wales, Professor Cameron, Professor of Medicine at the University of London, and Sergeant Cocks, a police officer who conducted some experiments by cutting a jumpsuit. On the other hand, a witness for the defence, Dr. Orams, a Reader in Dental Medicine and Surgery at the University of Melbourne, disagreed, and asserted that the damage could have been caused by the teeth of a dingo. It would not be profitable to review this evidence in detail, for in our opinion it was clearly open to the jury to prefer the evidence of the Crown witnesses. Professor Chaikin, whose expertise was not questioned, subjected the jumpsuit to examination under an electron microscope. He expressed the opinion that the jumpsuit was cut, probably with fairly sharp scissors, and that the damage was not caused by a dingo. His conclusion was based on the facts that he observed that all fibres at the end of the yarn were in the same plane, whereas when fabric is torn there is a distortion which would prevent the fibres from coming together, and that he found tufts which occur as a result of cutting but not as a result of tearing. No error in this approach was demonstrated. He concluded also that the holes in the singlet were probably produced by pushing something through it - such as a knife or scissor blades. As to the napkin, he could not exclude the possibility that the damage to it had been caused by a dingo. His evidence as to the jumpsuit was criticized on the ground that he had found only one nylon fibre which showed what he called a classic scissors cut, and that he had never examined the clothing of a person bitten by a dingo (although he had carried out an experiment with dingo teeth) and had assumed that a dingo bite would tear rather than cut - an assumption which is disputed. Notwithstanding these criticisms it was open to the jury to accept his evidence as correct. A quite different circumstance which supported the Crown theory was that no blood or tissue was found near the tear in the sleeve although, as some witnesses pointed out, some would have been expected if the tear had been caused by the bite of a dingo while the baby was wearing the jumpsuit. In our opinion it was open to the jury to be satisfied, beyond reasonable doubt, that the clothing had been buried, and later exhumed and removed to the place where it was found. It was further open to the jury to be satisfied that the damage to the jumpsuit at least had been caused by cutting and not by the bite of a dingo. Some evidence was directed to the question whether a dingo could have removed the baby from the jumpsuit, but even if the jury had been left in doubt as to the manner in which the baby was removed from the jumpsuit, the evidence as a whole would have justified them in concluding that the clothing had been interfered with, and put where it was found, by some human agency. The theory advanced by the Crown was that the clothing had been dealt with in this way, by one or other of the accused, in an attempt to lend support to the idea that the baby had been taken by a dingo. There is however nothing that directly shows that Mr. or Mrs. Chamberlain had been responsible for cutting the clothing or putting it where it was found. It was sought to connect Mr. Chamberlain with the clothing by evidence that on the day before the alleged murder he had taken photographs of the place where the clothes were later found. Mr. Chamberlain was, as the evidence shows, a very enthusiastic photographer and took many photographs; the fact that he photographed the part of the Ayers Rock area where the clothing was later found could not safely be relied on as being of any importance. The Crown also relied on the fact that the place where the clothes were found was not far from where Mrs. Chamberlain and others had seen a dingo earlier in the day of 17 August on a visit to Fertility Cave - a dingo which, as we shall later mention, Mrs. Chamberlain said resembled the one which took Azaria. In addition to these arguments, the Crown submitted that it was not reasonably possible that any person other than Mr. or Mrs. Chamberlain would have dealt with the clothing in that way. It is

true that it is difficult to suggest any rational motive for such actions but it is not beyond the bounds of possibility that the clothing was cut and moved by some unknown person, either prompted by some undiscovered motive or acting quite irrationally. (at p549)

37. The evidence as to the blood-stains on the singlet and on the jumpsuit is relevant to the cause of death. The blood-stains on those garments are very noticeable, particularly around the neck. Dr. Scott, a forensic biologist, said that the volume and pattern of the blood were consistent with an injury to the major vessels of the neck. Dr. Jones, a pathologist, said that the most likely injury which would have produced the staining of the jumpsuit, assuming the baby to have been inside it, was a lacerated or incised wound across the front of the neck, but he agreed that what he saw was consistent with massive head injuries producing substantial bleeding. Professor Cameron said that the blood-staining to the jumpsuit and the singlet could not in his opinion have been caused by any injury except a cut throat, but he later qualified this by saying: "I cannot totally exclude some head injury but the principal injury was a cut throat. There is no evidence to say that there was only a head injury." Professor Cameron also said that there was on the jumpsuit what appeared to him to be the impression of a small adult hand in transferred blood, with four fingers at the back and the thumb at the front, as if the baby had been held by a hand under her armpit. No other witness saw this imprint and we confess that it was not visible to us when we examined the jumpsuit and the flourescent photographs of the jumpsuit. Dr. Plueckhahn, a pathologist, who was called for the defence, said that the pattern of bleeding on the clothing was consistent with heavy bleeding from either the throat, neck or head, but he did not agree that it could be said that it resulted from a cut throat rather than from any other head injury; he strongly disagreed that the impression of a human hand could be seen on the jumpsuit. (at p550)

38. In September 1981 - more than a year after the alleged crime - the police took possession of the Torana car, and of many articles which Mr. and Mrs. Chamberlain told them had been in the tent or in the car on the evening of 17 August 1980. The car and those articles were thereafter tested in order to determine whether there were any stains or traces of blood on them - and in particular whether any blood found contained foetal haemoglobin. The scientific evidence given in relation to this issue is conflicting but important. (at p550)

39. The blood of a child under the age of six months contains foetal haemoglobin as well as adult haemoglobin. The difference between the haemoglobins lies in their molecular content. Adult haemoglobin contains four molecular chains: two alpha chains and two beta chains. Foetal haemoglobin contains two alpha chains and two gamma chains. The blood of a new born child contains both foetal haemoglobin and adult haemoglobin in the proportion of about 75:25 per cent; the proportion of the foetal haemoglobin decreases with age so that a baby of Azaria's age would have about 25 per cent foetal haemoglobin and so that, after the age of about six months, a healthy child normally has none. (at p550)

40. A test used to detect the presence of blood in the first instance - a screening test - is the Orthotolidine Test. That test is operated in two stages; at the first stage, when a drop of orthotolidine is added to the sample tested, there is no reaction if blood is present, but at the second stage, when a drop of hydrogen peroxide is added, a brilliant blue colour is produced by blood. However, the test is not specific for blood. Other substances may produce a similar reaction; an experienced technician would not be misled by the reaction produced by most other substances, but some rusts may produce a reaction which appears to be the same as that produced by blood. (at p551)

41. The presence of foetal haemoglobin is determined by a testing procedure which uses a product, which we may call an "anti-HbF anti-serum" or an "anti-serum", containing antibodies which react only with the antigens of the gamma chains of the haemoglobin molecules. There are three tests of this kind, all of which depend basically on the same principle - the Ouchterlony Test, the Crossover Electrophoresis Test and the Tube Precipitin Test. In each case it is essential that the anti-serum used in the reaction should be monospecific - it should react only to the molecules in the gamma chain. Obviously enough, if it reacts with molecules in the alpha chain the result which it gives will be useless, because both adult and foetal haemoglobin contain alpha chains. (at p551)

42. A fourth test, the Haptoglobin Test, is used primarily to obtain the haptoglobin grouping of the blood sample, but if foetal haemoglobin as well as adult haemoglobin is present in sufficient quantities, this will be shown by the presence of a band in a particular position in the gel used to conduct the test. The test requires to be confirmed by further testing before it can be safely accepted that foetal haemoglobin is present. (at p551)

43. The testing on behalf of the prosecution was carried out by Mrs. Kuhl, a forensic biologist employed by the Health Commission of New South Wales, during the period from September 1981 to January 1982. Mrs. Kuhl acted under the general supervision of Dr. Baxter, the senior forensic biologist of the Health Commission. He saw the plates and gels used by Mrs. Kuhl in her experiments, and agreed with her conclusions. The plates and gels were destroyed soon after the tests were made; this was in accordance with the practice of the laboratory, and it is not suggested that there was anything sinister about it. Mr. Culliford, the Deputy Director of the Metropolitan Police Laboratory in London, and a distinguished forensic biologist, read Mrs. Kuhl's evidence, and her laboratory work notes, and approved of her methods and conclusions, but of course neither he, nor the experts called for the defence, could see the plates or gels. (at p551)

44. According to the evidence presented by the Crown, the Orthotolidine Test indicated the presence of blood in many parts of the car, and one or other of the three tests which involve the use of the anti-HbF anti-serum showed that in twenty-two of the samples tested the blood was foetal blood, i.e. blood containing foetal haemoglobin. Those twenty-two samples were taken from the floor under the front passenger's seat, a bolt hole under that seat, the hinge on the side of that seat, the vinyl behind the hinge, a ten cent coin found on the floor, the carpet at the side of the driver's seat near the door panel, a small pair of scissors, a towel, a chamois container, the zip clasp and side buckle of the camera bag, and (in the case of three samples to which it will be necessary particularly to refer) from under the glove-box. A further test - the Haptoglobin Test - was applied to two of the samples behind the hinge, and flakes suspended between the hinge and the seat - and confirmed the presence of foetal haemoglobin. Samples which responded positively to the Orthotolidine Test, but were not shown to be foetal blood, included those taken from the carpet in front of the driver's seat, visible runs on the side of the front passenger's seat, the console and the window handles on the doors, and two compartments of the camera bag. There was no evidence of any blood on the carpet in front of the front passenger's seat. (at p552)

45. The expert evidence given for the defence strongly challenged the correctness of the tests for foetal blood, and we shall turn to consider the criticisms of Mrs. Kuhl's evidence advanced for the defence. Whatever be thought of these criticisms, however, in our opinion it was open to the jury safely to conclude that the tests did indicate the presence of blood in most of the samples tested, except perhaps in those taken from under the glove-box, which we are about to discuss separately. Indeed, except in relation to the marks observed under the glove-box, the defence did not dispute that blood was

found in the car, but attempted to explain its presence. First it was proved that a Mr. Lenehan was, on 17 June 1979, involved in an accident near Port Douglas, and was picked up by the Chamberlains and driven by them to Cairns in the Torana. The rear seats of the Torana, which was a hatchback, had been lowered to make a flat surface, on which he lay with his head towards the front passenger seat. He bled profusely from a scalp wound. There was also evidence that Aiden and Reagan had had nose bleeds while travelling in the front passenger's seat of the car, and that Azaria sometimes vomited when sitting on her mother's knee on the front passenger's seat. There was also evidence that children from a church group were often carried in the car and that sometimes they would have bled from minor injuries. None of this evidence would explain the presence of the blood if it were foetal blood, because, of the possible sources of the blood, only Azaria would have had foetal blood, and if there was any blood in her vomit it could not possibly account for the quantity and distribution of the blood found. Even if the blood was not foetal blood, the jury were entitled to consider it highly unlikely that the incidents which we have mentioned would explain the presence of all of it. There was evidence, which the jury could accept, that an experiment conducted by Crown witnesses on a similar car seat showed that when someone was sitting on the seat blood would flow down the side of the seat in a pattern which corresponded to that which Mrs. Kuhl observed on the side of the front passenger's seat of the Torana, and would flow or drip behind the hinge and into the bolt hole. It is unlikely that Mr. Lenehan's bleeding caused blood to flow down the side of the front passenger's seat in that way. Mrs. Chamberlain said in evidence that he was lying with his head on her knee very close to the end of the back seat. There would therefore have been an appreciable distance between his head and the front seat. Of course, the accused were under no burden to explain the presence of the blood found in the car a year after the alleged crime: the burden of proof did not shift from the Crown. (at p553)

46. Mrs. Kuhl endeavoured to ascertain the group to which the blood found in a number of the samples belonged. She found that the blood was probably group O, and that its Phosphoglucomutase (which is an enzyme) grouping was PGM 1+. The grouping as group O is insignificant, but since Mr. Lenehan's PGM grouping was PGM 2+1+ the test, if accurate, shows that the blood tested was not his. However Dr. Cornell, a consultant biochemist, gave convincing evidence that it is difficult to obtain a reliable PGM grouping from blood which is old and denatured. Mrs. Kuhl did not try to discover Azaria's PGM grouping, as she could have done by testing the blood on the jumpsuit, but relied on the fact that Dr. Scott, using a different method which does not permit of such detailed classification, found Azaria's blood to be PGM 1, so that, if Mrs. Kuhl's tests were correct, the blood she tested could have been Azaria's. (at p553)

47. We must now deal with the submission on behalf of the Crown that foetal blood was found under the glove-box, or dashboard, of the Torana. Detective Metcalfe gave evidence that he examined the car in October 1981, and then observed a spray pattern under the dashboard next to the glove-box compartment; he touched part of the pattern, and it felt sticky. The substance he touched could not have been Azaria's blood, since her blood would have dried within two hours (at latest) after it had been shed. On the same day, Mrs. Kuhl screened the area of spraying, and the Orthotolidine Test proved negative; she concluded that the pattern was made by soft drink or something like that. On 10 November 1981, the car was examined by Dr. Jones, who saw, welded under the dashboard, a metal plate, which appeared to have on it spots consistent with blood. Dr. Scott did a presumptive Orthotolidine Test, which proved positive. Dr. Jones collected four samples from under the dashboard - each a complete spot. He later sent three to Mrs. Kuhl: one taken from the metal plate, and two from another part of the glove-box support area. He removed the metal plate, and observed two patterns of staining - what appeared to be a splash pattern of large drops along the front edge, and a spray

pattern, of droplets such as would be formed by the ejection of fluid from a small orifice under pressure, such, for example, as would result from blood ejected from a small artery. Mrs. Kuhl, who tested the three samples by the use of the anti-HbF anti-serum, concluded that each contained foetal haemoglobin. Dr. Jones removed the metal plate from under the dashboard and examined the leading edge, and found other spots on it; Mrs. Kuhl's test of a sample taken from the edge was nonspecific, since the sample reacted with a number of anti-sera, and she concluded that it was not blood. Dr. Jones and Professor Cameron both expressed the opinion that the spray on the plate must have come from a source forward of the plate, which it must have struck at an angle of about 30 to 45 degrees. Some months later, in May 1982, Mr. Culliford was given a number of samples, including one from the steel plate. With one exception (metal clips from the seat) he was satisfied that the samples were blood, but he could not take the testing further: at least by that time it was not possible to say whether the samples contained foetal haemoglobin. (at p554)

48. No doubt the splash pattern and the spray pattern under the dashboard could have been formed by different substances - one perhaps by blood, another perhaps by soft drink. On behalf of the accused it was argued that the effect of the evidence was that of the three spots tested by Mrs. Kuhl, two must have come from the splash pattern, and that it was not clearly shown from which pattern the other came. It does seem to us right to say that two of the drops did not come from the spray pattern, and that it was not proved that the other spot came from that pattern. However, even if all came from the spray pattern, that does not assist the Crown case unless the blood is shown to be foetal blood. For, as Jenkinson J. pointed out, the conclusion that the source of the spray was an artery depends on the assumption that the spray was deposited on the metal plate at a time when it was incorporated into the car. The Torana had been used as a demonstration model by a dealer from September 1977 until Mr. Chamberlain bought it in December 1977. Before delivery was made it was cleaned inside and out, but, as Jenkinson J. said, "the position of the sheet in the car precludes any confident belief that the sheet would have been cleaned before the care was delivered by the manufacturer to the dealer". In this connexion it should be mentioned that Mr. Chamberlain discovered, in another 1977 Torana, a metal plate on which was a pattern which, according to Dr. Jones, was of a similar character to that on the steel plate removed from Mr. Chamberlain's car. There was no evidence as to what caused this pattern, and the trial judge suggested to the jury that this steel plate was of little evidentiary value. The defence also relied on the evidence of Mr. Tew, who did some electrical work on the car in November 1980, and who saw some blood-stains on the console but did not notice any blood under the dashboard, although he fixed wires over the position in which the spray was said to have been. We consider that notwithstanding Mr. Tew's evidence, the jury were entitled to find that there were some spots of blood under the dashboard. However, it seems to us, for the reasons given by Jenkinson J. to which we have already referred, that the jury could not safely have drawn the conclusion that the spray pattern under the dashboard indicated that the source of the blood was an artery and indeed could not safely have attached any great significance to the blood under the dashboard, unless and until they were satisfied that some of the spots contained foetal blood. (at p555)

49. We now turn to the evidence of the two witnesses for the defence who challenged the result of the tests conducted by Mrs. Kuhl. They were Professor Boettcher, Professor of Biological Science at the University of Newcastle, and Professor Nairn, Professor of Biology and Immunology at Monash Medical School. Both were distinguished academics and undoubtedly expert in this field. They criticized Mrs. Kuhl's testing on a number of grounds. Perhaps the most important opinion expressed by Professor Boettcher and Professor Nairn was that the anti-HbF anti-serum used by Mrs. Kuhl was not monospecific; if that is so, as we have said, her conclusions that the blood was foetal blood cannot

be accepted. This opinion was based on a number of apparent anomalies in Mrs. Kuhl's results. For example, Professor Boettcher said that it appeared from Mrs. Kuhl's notes that she observed a more positive reaction by the anti-HbF anti-serum to the test samples than to cord blood (blood taken from the umbilical cord) used as a control. This is the reverse of what would be expected if the test sample was of Azaria's blood, since cord blood is richer in foetal haemoglobin than is the blood of a baby of Azaria's age. Further, he said that the tested samples reacted more strongly with the anti-HbF anti-serum than with an anti-serum which was supposed to react to any haemoglobin, adult or foetal; again this was the reverse of what would be expected, since Azaria's blood would have contained more adult than foetal haemoglobin. The Crown witnesses explained these apparent anomalies; amongst other things they said that the tests were qualitative and not quantitative, and that the foetal haemoglobin molecule is more stable than the adult haemoglobin molecule - the latter assertion is vigorously controverted by the defence. Professor Boettcher himself conducted a number of tests using an anti-HbF anti-serum, which was of course intended to be specific to foetal haemoglobin; he obtained the anti-serum from Behring Werke, the source from which Mrs. Kuhl had obtained her anti-HbF anti-serum, and conducted experiments which in his opinion showed that it was not monospecific. It was not established that the serum which Professor Boettcher obtained from Behring Werke came from the same batch as that supplied to Mrs. Kuhl - assuming, that is, that the substance was made in batches kept distinct when supply was made to purchasers. (at p556)

50. Professor Boettcher and Professor Nairn criticized Mrs. Kuhl's interpretation of a demonstration plate, which she had used for the purpose of conducting an Ouchterlony Test, and of which she had kept a photograph. There was a mark in the gel which, if it was a precipitin band, indicated that the anti-HbF anti-serum had reacted with adult haemoglobin and was therefore not monospecific. Mrs. Kuhl however said that the mark had appeared only after she had conducted a staining procedure to preserve the materials on the plate, and if this was correct (and the jury were entitled to accept her evidence on this point) the mark did not show that the anti-HbF anti-serum was not monospecific. Another test plate showed a number of double precipitin bands, one of which was the product of the reaction between the anti-HbF anti-serum and antigens associated with the gamma chain; the other, according to Professors Boettcher and Nairn, showed that there had been a reaction with antigens associated with the alpha chain, so that the anti-HbF anti-serum was not monospecific; they conceded, however, that other explanations for the double banding were possible, if it could be assumed that the anti-serum was monospecific. The Crown witnesses said that there were a number of possible explanations for the double banding. (at p556)

51. Mrs. Kuhl conducted over 200 tests of the anti-HbF anti-serum in and after February 1982 (i.e. after she had completed her tests on the samples taken from the car) and these tests in her opinion established that the anti-serum was monospecific. Professor Nairn was of the opinion that an anti-HbF anti-serum cannot safely be regarded as monospecific for the purpose of testing a particular sample to determine whether it is foetal blood, unless the anti-serum is tested at the time when it is to be used, since anti-sera can alter during storage. He accordingly regarded Mrs. Kuhl's testing of the anti-serum as irrelevant. There is no precise evidence that the 200 tests were of anti-serum from the same batch as, or identical in kind with, that used to test the car and articles that had been in it. (at p557)

52. Further it was pointed out that Mrs. Kuhl was faced with the difficulty of testing old blood which had been in a motor car for a considerable time under tropical conditions. Old blood becomes denatured, i.e., it undergoes biological changes, which may possibly reduce the number of antigens associated with either the alpha or the gamma chain, and so affect their

capacity to react with antibodies specific to those antigens in the way in which they would be expected to react if the blood were fresh. In addition, the fact that the blood is denatured renders it more difficult to ensure that the blood (which in the present case was often present only in small quantities) is diluted in the correct proportion, since the proportion of the dilution is judged visually, by colour comparison. (at p557)

53. The defence witnesses did not accept the correctness of the Haptoglobin Test which Mrs. Kuhl performed on the two samples taken from behind the hinge on the front passenger's seat of the Torana. They pointed to anomalies in the results of the test. Mrs. Kuhl obtained negative results so far as the haptoglobin was concerned, but, according to her work notes, she observed the presence of a band in the foetal haemoglobin position. She did not however record the presence of a band in the adult haemoglobin position, and explained this by saying that she had not recorded the presence of the adult haemoglobin band because it would be expected to be present. She was unable to give the proportions of foetal and adult haemoglobins in the sample tested, but Dr. Baxter, who claims to have checked her results (although he did not initial the worksheet) gave evidence that from his observation of the haptoglobin gel he was able to estimate that the sample tested contained at least 50 per cent of foetal haemoglobin. If Dr. Baxter was correct, the blood in the sample could not have been that of Azaria, since testing by Dr. Scott had confirmed that the blood on some articles taken from the tent, which was undoubtedly Azaria's blood, had a foetal haemoglobin content of 25 per cent, which, as we have already said, is what would be expected in the case of a child of that age. (at p557)

54. We have done no more than attempt a brief statement of the issues that were canvassed in expert evidence that was given at considerable length. It is of course the function of the jury to consider which of two bodies of conflicting evidence, technical or otherwise, they will accept. In the present case, Bowen C.J. and Forster J., in the Federal Court, said (1983) 72 FLR 1, at p 30; 46 ALR 493, at p 520 :

> "Had we seen and heard all the evidence on this topic being given, we might have concluded otherwise, but situated as we are, we have no doubt that the jury was entitled to prefer the evidence of one group of experts to that of the other group."

Jenkinson J. took a different view. He said (1983) 72 FLR, at pp 81-82; :

> "Those means of evaluating evidence which the jury enjoys by hearing and watching witnesses, and which are denied an appellate tribunal, could not in my opinion have enabled the jury reasonably to have eliminated the doubt, as to whether the matter tested contained foetal haemoglobin, which a careful consideration of the transcript of evidence and the exhibits raises in the mind. It may be conceded, as counsel for the Crown submitted, that idiosyncracies of manner and voice may undermine confidence in the reliability of a witness. But the evidence of Professor Boettcher and of Professor Nairn claimed the consideration of the jury upon grounds which could not rationally be shaken substantially by those things which the eyes and ears of a jury receive, but which a transcript does not reveal. Each of them was giving his opinion on matters of science within disciplines of which each was a master, and at a level of difficulty and sophistication above that at which a juror, or a judge, might by reasoning from general scientific knowledge subject the opinions to wholly effective critical evaluation. The reasoning by which other expert witnesses criticised the conclusions of Professor Boettcher and Professor Nairn, as well as the reasoning by which the latter two witnesses supported those conclusions and criticised the conclusions of the others, were all matter for the jury's evaluation. But in my opinion

> no juror could reasonably have failed to acknowledge that, reason as he might, he was not in a position to assure himself of the correctness of a conclusion against the opinions of the two professors to the degree which would eliminate reasonable doubt as to that conclusion."

We agree with Jenkinson J. The most that could be said against Professors Boettcher and Nairn was that their work was done in the comparative seclusion of academic surroundings, so that they lacked the day-to-day experience of the forensic scientists called for the Crown, and that they exhibited "an unbecoming arroagance" (in the words of Bowen C.J. and Forster J. (1983) 72 FLR 1, at p 30; 46 ALR 493, at p 520) and that Professor Boettcher did not fare well in cross-examination. There was no challenge to their knowledge or their honesty or impartiality. The criticisms they advanced appear to be rational and compelling. Of course the Crown witnesses had answers to those criticisms. We do not doubt that if the question was whether there was evidence to support a finding that the blood in the car was foetal blood, the question should be answered in the affirmative. But when the question is asked whether such a finding could safely be made it seems to us that the answer must be in the negative. The conflicting evidence should have raised a doubt in a reasonable mind, and there is no other evidence that can resolve the doubt before a decision on the verdict is ultimately reached. We conclude therefore that, in the present case, we must proceed on the basis that the jury were entitled to accept as a fact, from which inferences might be drawn, that those parts of the car, and those articles in it, that responded affirmatively to the tests had blood upon them, but that they could not safely accept as a primary fact that the blood was foetal blood. (at p559)

55. The learned trial judge directed the jury as follows:

> "You are, if you are satisfied that blood was found in the family car, still entitled to see where it leads you, even if you have a doubt that due to denaturation or her methodology, her opinion that it was foetal blood, does not stand up, you're still entitled to ask yourselves how that blood, even though you are not convinced it had a foetal content - and to say it may or may not have - how that blood came to be there. Is it explained by Mr. Lenehan's bleeding in that car, near Port Douglas on 17 June 1979.
>
> If you find because of the location of blood in the car, that it cannot be so explained, you can still consider whether it was Azaria's blood - that is the only explanation after you - after considering the other evidence. Or, ladies and gentlemen, you must also consider that it was a family car, and the evidence of people sustaining injury in the car, and questions of projectile vomiting, bloody-noses and the like." (at p559)

56. In our opinion it was right to tell the jury that they could consider the fact that blood was found in the car, and how it came to be there, although there was of course no burden on the accused to prove that it came there innocently. (at p559)

57. Two further matters given in evidence by expert witnesses remain to be noticed. The Crown relied on the fact that no dingo hairs were found either among the contents of the tent or on the baby's garments. The examination of the exhibits conducted in August 1980 does not seem to have been very thorough and it is possible that dingo hairs, had they been present, might have been missed. Secondly, in September 1981, as a result of vacuuming, there were found in three parts of the car (the front passenger's side, the front driver's side and the offside rear portion), and in the camera bag, a number of tufts or loops of cloth; such tufts are formed when the fabric is cut, either during manufacture or subsequently - tufts formed during manufacture may adhere to the garment and fall off later. Professor Chaikin gave evidence

that some of the tufts could have come from a jumpsuit similar to that worn by Azaria. Mr. and Mrs. Chamberlain gave evidence that all their children wore jumpsuits, and that it was their practice to cut the legs out of a jumpsuit as a child grew out of it. The tufts were tested for blood - none was found on them. (at p560)

58. Finally, the Crown, in support of its case, relied on what were claimed to be inconsistencies in various statements made by Mrs. Chamberlain from time to time as to what she saw when she approached the tent after her husband had heard the baby's cry. It will be remembered that Mrs. Chamberlain had cried out that the dog, or the dingo, had got her baby. That did not necessarily mean that she had seen the dingo carrying the baby; her conduct, in veering back towards the tent (to use Mrs. Lowe's words) and her statement to Mr. Haby, indicated that she did not mean that. Later in the evening she told Mrs. Whittacker that she had entered the tent, looked for the baby, seen that the bassinet and clothing were dishevelled and had thought at first that perhaps the baby had fallen out and had searched but could not find it. Again that evening, Mrs. Whittacker heard Mrs. Chamberlain say to her husband: "Is it possible that someone could have entered the tent and taken away the baby?" to which Mr. Chamberlain replied, in a gentle voice: "But what about the blood?" Mr. Roff also asked Mrs. Chamberlain whether she had seen the dingo carrying the baby out of the tent; she replied, "No, the dingo wasn't carrying anything." On the other hand Constable Morris said that when he first spoke to Mrs. Chamberlain on the evening of 17 August she told him that she had seen a dingo near the tent which had what appeared to be something in its mouth and that she had not taken a great deal of notice until she returned to the tent site a short while later and then suddenly realized that the dingo must have taken her baby. He said that later in the evening, after the unsuccessful search, he had a further conversation with her, and that on this occasion she said that the dingo had nothing in its mouth. He said to her: "But you made a statement earlier that the dingo had something in its mouth" and she said that she did not recall making that statement. Mrs. Chamberlain was emotional and upset at the time and Constable Morris did not make a contemporary record of the conversation and could not vouch that he could repeat it verbatim. On the following day Mrs. Chamberlain was interviewed by Inspector Gilroy. In the course of that interview she said that when she was half-way to the tent she saw the dingo come out of the tent. Her statement continued: "I saw the dingo from about shoulder up, and he sort of looked as if he, I thought he'd got a fright and heard me coming with having trouble getting out the tent flaps. He sort of waved his head to get out and I immediately, I didn't realize he was in there and the cry disturbed the baby, he might have savaged it . . . I yelled at it to get out of the road and it took fright and ran in front of our car which was parked right next to the tent. But I didn't sort of keep looking at it, I dived straight for the tent to see what had made the baby cry . . . . " She went on to say that the bassinet was empty, that she came out of the tent and called to her husband that the dingo had taken the baby. She said that she could still see the dingo and chased it until it went into the bush. Later in the interview she said: "No I did not see anything in the dingo's mouth because that was below the level of the light. It sort of had its head down, and coming out of the tent I thought it was just shaking its head to get past, the thing, it was obviously because it had a heavy thing, she had a little towelling stretch suit on, and often my other two used to wear towelling suits, and often when they were bigger and crawling I'd pick them up by the back, they're very strong, and it is quite easy to pick them up by the back, and in which case, the towelling stretches and the baby would be maybe six inches from the mouth if he was carrying her like that." She volunteered the information that, during the afternoon, at the Fertility Cave, she had seen a dingo which seemed to be watching her; she said "it's almost as if the dog had been casing the baby". (at p561)

59. On 30 September 1980 Detective Sergeant Charlwood interviewed Mrs.

Chamberlain at Mount Isa and had a conversation with her. She later signed a record of interview. In the course of the conversation that was not recorded, she said that when she first saw the dingo it was partly inside and partly out of the tent. She said: "Its head was out and it was trying to get something through the doorway and swinging its head round like this, now, with its head down, that's what made me think it was a shoe . . . . " She said she yelled at the dingo thinking it might drop the shoe and then she realized that it might have bitten the baby. She said that as soon as she reached the front of the tent she could see the blankets scattered and instinct told her that the dog had the baby but she dived into the tent to make sure. She saw that the baby was missing. She went out of the tent and as she did so she called to her husband that the dingo had got the baby. As she was calling out she started to run in the direction in which the dingo had gone; she said that it went out of the tent and across in front of the car, that is to her right, and into the darkness. She went around the car and saw the dingo standing in the shadow of the car at the back - the back left-hand corner of the car. As soon as she peered at it, it took off. She said: "It was standing with its back to me, with its head slightly turned at that stage. I couldn't tell you whether it had anything in its mouth or not. My mind refused to accept the thought that it had her in its mouth, although I know that sort of it must be it . . . . " She said that the dingo ran off at an angle into the dark. In the written record of the interview it is recorded that she was asked whether she actually saw anything in the dingo's mouth when she was at the entrance to the tent and she replied: "No. It was the way it moved that made me realize that it had something. The tip of its nose and its legs were in the shadow and it had its head down." She was asked whether she saw anything in the dingo's mouth when it ran into the scrub and replied: "I have already stated I didn't; my mind refused to entertain the possibility. It was like a mental block. I tried to recapture the picture I can see the dog in my mind its mouth remains a blurred blank." She said that she wondered if the dingo was the one she had seen at Fertility Cave but thought that the cave was too far away. (at p562)

60. At the inquest into the death of Azaria, which was held on 15 December 1980, she described what she saw of the dingo as follows: "It looked, by its actions, as if it had something in its mouth as it was coming out of the tent door because it was either having difficulty getting out or playing with something at the door. We had a row of shoes along the front of the door and I thought that it probably had one of my husband's shoes and it was springing, which was stopping it getting through the door." She said that the dingo was shaking its head very vigorously from side to side as it came out of the tent. When she yelled at the dingo initially it had run across in front of the car and the shadow of the fence and after she came out of the tent she headed in that direction. When she came around the corner of the car the dingo was standing back behind the car probably in about the centre of the road. She said that she chased it across into the bush. She said that she was heading about 45 degrees to the fence line and said: "I will go on directions. If north is straight ahead, it was north-east. Michael would have run in a direction of about nor-nor-east." (at p562)

61. At the trial she was cross-examined about what she had seen of the dingo. She said that when the dingo left the tent it went towards her right-hand side, that is towards the south. She said that she followed it with her eyes only for a few yards - she corrected it to a couple of feet - and presumed it had gone south of the car. When she went behind the car she saw a dingo standing by the car on the southern side. She said that subsequently the trackers had told her that this was a different dingo from that which had taken the baby, although she had previously believed that it was the dingo that had taken the baby. She said that after she came out of the tent she gave chase in the general direction in which the dingo that came out of the tent had gone and then when she got round the car she saw the second dingo standing towards the back of the car in the shadow. She said that she did not see the

dingo which had come out of the tent pass in front of the car or go to the south of the car; after it had gone for a couple of feet she lost sight of it. It was put to her, but she denied, that she had changed her story in order to take advantage of the evidence that there were some sprays of blood on the side of the tent. It was also put to her that when she told Inspector Gilroy that she thought that the dingo that had taken the baby was the one she had seen earlier in the day at Fertility Cave, she was attempting to divert attention from the camping area and to the place where the clothes were ultimately found. She replied: "No, but I was concerned that that area didn't seem to be being searched at all." (at p563)

62. There are obvious inconsistencies in these statements. Some may not be significant - for example, we doubt the importance of the statement "if north is straight ahead it was north-east", since if, as appears, Mrs. Chamberlain was speaking of a time when she was facing east, the direction in which the dingo went would have been south-east, which sufficiently corresponds with the evidence. The belated disclosure that there were two dingoes could have been both innocent and correct. However the jury were entitled to take the view that her statements contained significant inconsistencies in relation to the questions what, if anything, she saw in the dingo's mouth, when she first knew or believed that the dingo had taken the baby, and the direction in which the dingo ran. Moreover, her statements that she first yelled at the dingo, and later called out to her husband after she had gone into the tent, do not correspond with the evidence of Mr. and Mrs. Lowe. (at p563)

63. There were some other matters also concerning which she made statements which the Crown claimed were false. She said that she saw tear or cut marks in a blanket that had been in the tent and suggested that these may have been caused by the dingo, whereas Professor Chaikin said that the marks had been caused by insects, some of whose larvae were still in the marks. She also said that at Mount Isa she discovered a dusty paw mark on a "space blanket" which had been in the tent, and in her record of interview claimed that her mother, her sister-in-law, her husband, her father and her brother had also seen the mark; however none of those persons gave evidence, except Mr. Chamberlain who did not say in evidence that he had seen the mark. A member of the police force at Mount Isa, Constable Brown, gave evidence that when the blanket was handed to him Mr. Chamberlain said: "There are two paw prints in one corner. You can see them if you hold it up to the light." Constable Brown could not see the prints. (at p564)

64. The jury were entitled to reject the evidence of Mrs. Chamberlain, as they must have done in order to convict. It was submitted on behalf of the Crown that the jury were entitled to think that her evidence, and her statements made out of court, were fabricated, and to regard the fabrications as showing a consciousness of guilt. Although the mere disbelief of her statements that she saw the dingo emerge from the tent would not in itself provide proof that she did not see the dingo, the inconsistencies in her statements would have justified the jury in concluding that they were false and that she made the false statements because she had something to hide. There were other considerations which may have led the jury to think it unlikely that her story was true - in particular, they may have thought it probable that if the baby, dressed as she was in white, had been in the dingo's mouth Mrs. Chamberlain would have seen her, and they may have thought it unlikely that a dingo carrying a baby would have walked with its head down, in the way Mrs. Chamberlain described, since Mr. Harris, who had acquired a special knowledge of dingoes, gave evidence that a dingo carrying its prey will normally walk with its head erect. Further, the jury were entitled to take the view that her evidence in relation to the tear marks and the paw marks on the blanket was false. Of course, if Mrs. Chamberlain were innocent, the events of the evening of 17 August must have been shatteringly traumatic, and likely to cause a deep and persistent emotional disturbance which might

have affected her memory of the events of that night and of matters connected with it. Moreover, if she were innocent, it is possible that she might embroider her story when faced with the threat of unjust conviction. However, the weight to be given to considerations of that kind was a matter for the jury. (at p564)

65. The trial was lengthy and it would not be possible to refer to all the evidence, but we have attempted to summarize that which seems to us most important. The question then is whether, on the evidence, the jury could safely convict. Two hypotheses to account for the disappearance of Azaria were put to the jury - that Mrs. Chamberlain cut her throat in the front seat of the Torana, or that she was carried off by a dingo. A third possible hypothesis, that the baby was killed by one of her two brothers, was disclaimed by all parties. Of course if Mrs. Chamberlain's actions were to be explained by her wish to protect a guilty son, it might be expected that she would persist in that attitude at the trial. There is however no evidence whatever to link either of her sons with the death. (at p564)

66. It is convenient first briefly to refer to the considerations which present some obstacles to the acceptance of the Crown case. First, of course, the jury must have rejected the evidence of Mrs. Lowe that she heard the baby's cry. Mrs. Lowe's honesty was not impugned, but the jury were entitled to consider that she was mistaken. It would be less easy for them to reject the evidence of Mr. and Mrs. Lowe that Mr. Chamberlain said that he heard the baby cry, for that provided the reason for Mrs. Chamberlain to go back to the tent; and in the circumstances they are not likely to have mistaken the reason (true or false) that she gave for returning to the tent. Assuming that Mr. Chamberlain did say that he heard the baby, there are three possibilities - he may in truth have heard it (in which case Mrs. Chamberlain is innocent), or he may have wrongly believed that he heard it (in which case Mrs. Chamberlain was very quick to seize the opportunity to return to the tent) or he may falsely have said that he heard it; that last possibility, if accepted, would mean that he was at that stage already acting in collaboration with Mrs. Chamberlain, either as a result of an arrangement made between them before the murder (which has never been suggested by the Crown) or as a result of a conversation, not overheard by Mr. and Mrs. Lowe, during the short time after Mrs. Chamberlain returned from the tent. It would of course be a matter for the jury to decide which of these possibilities they accepted, but any one of them presents the Crown with certain difficulties. (at p565)

67. Another problem is the complete absence of motive or explanation for the crime. Mrs. Chamberlain was of good character and according to the evidence was a loving mother. There is no evidence to suggest that her mind was unhinged. If she committed the crime she was extraordinarily self-possessed and a clever actress - normal and composed when she returned with Aiden to the barbecue area after having killed the baby, and apparently shocked, tearful and distressed after she had, according to her, seen the dingo. (at p565)

68. Another difficulty for the Crown is caused by the position of the child Aiden. If the hypothesis of guilt be accepted, Aiden must have remained in or near the tent while Mrs. Chamberlain took the baby from the tent to the car. A child of Aiden's age (nearly seven) might have been expected to notice the fact that the baby had been taken from the tent and not returned to it, and he might in the circumstances have been expected to mention that fact later in the evening. However, the evidence suggests that Aiden believed the story that the baby had been taken by a dingo. (at p565)

69. We have already mentioned the fact that Mrs. Chamberlain would have had little opportunity to clean the blood from her person. No blood was seen on her clothes at any time during the evening. Even if she did put on the tracksuit pants before killing the baby, and removed them subsequently, it is

surprising that no blood got on her frock, particularly since, on the Crown's case, she must have been dripping a considerable quantity of blood because the articles on which spots and stains of blood (claimed by the Crown to have been transferred blood) were found were dispersed throughout the tent. On the other hand, she herself said that there was blood on her trackshoes. (at p566)

70. Then there is the question of how Mr. and Mrs. Chamberlain could have disposed of the body. It is true that there were some periods of the night when they were alone together and went into the dark away from the camp site. It is true also that Mr. Chamberlain may have had an opportunity to perform the burial alone. However some of the campers were in the area near the car for most of the time and many people, perhaps 100 or so, were conducting searches round about. It would seem to have been a foolhardy endeavour to take the baby's body from the car and bury it in the dunes. It would have been extremely difficult for Mr. or Mrs. Chamberlain to have disposed of the body before they left the camp site that evening, without being seen to do so. Perhaps Mrs. Elston's evidence regarding the camera bag may lead to the suggestion that the body was taken back to the motel, in the camera bag; in that case it might have been buried on the following day. That theory is rendered harder to accept by the fact that the body was exhumed after it was buried, and by the facts that the car was packed and unpacked with the assistance of others, and that Mrs. Elston was invited to travel in it, and that no one saw any blood in the car. No attempt was later made by Mr. or Mrs. Chamberlain to dispose of the incriminating camera bag (or the blood-stained towel or the scissors) although they had an obvious opportunity to do so on their return journey to Mount Isa. Indeed it appears that the accused voluntarily produced the camera bag to the police at Mount Isa when the police had in the first place taken possession of the wrong bag. (at p566)

71. Further there was the evidence, which the jury could not have disbelieved, that in the course of the search there were found tracks which suggested that something like a knitted garment had been dragged or carried by an animal. However, the evidence as to the nature of the tracks was not very precise, and the Crown in any case contends that the evidence shows that a dingo would have been unlikely to drag the baby since a dingo would normally keep its head erect when carrying prey of that weight and size. (at p566)

72. Finally there is the difficulty of understanding why Mr. or Mrs. Chamberlain, assuming their guilt, would have taken the risk of exhuming the body and leaving the clothes where they might be found. The Crown theory of course is that the clothing was put where it was found in an attempt to give verisimilitude to the story about the dingo. (at p567)

73. These were all matters for the jury to consider and weigh. They were such that they must have raised doubts in the mind of a reasonable jury. However, in our opinion, the other evidence in the case was sufficient to remove the doubts. (at p567)

74. It was established beyond reasonable doubt that apart from the two children Mrs. Chamberlain was the only person who had an opportunity to kill Azaria. In other words, once the possibility that one of the children killed Azaria is rejected, as it was by common agreement at the trial, only two possible explanations of the facts remain open - either a dingo took Azaria, or Mrs. Chamberlain killed her. Therefore, if the jury were satisfied beyond reasonable doubt that a dingo did not take the baby, they were entitled to accept the only other available hypothesis, that Mrs. Chamberlain was guilty of murder. However, it would have been unsafe for a jury to approach the case by asking, "Are we satisfied that a dingo did not do it?", because that would have diverted attention from the evidence that bore on the critical issue - whether Mrs. Chamberlain killed the baby. And it was necessary for them to avoid the danger that the onus of proof might, unconsciously but wrongly, be

reversed, when, in a case dependent on circumstantial evidence, the only hypothesis consistent with innocence was supported by evidence given by the accused. (at p567)

75. Other facts which were established beyond reasonable doubt were the condition of the baby's clothing when it was found, the quantity and position of the blood in the tent and car respectively, and the presence of the tufts of fabric in the car and in the camera bag. The blood-stains on the clothing made it probable that the baby died as a result of a cut or other incised wound to the throat. The small amount of blood in the tent, and the places where it was and was not found, made it certain that the bleeding which caused the staining of the clothing did not all occur in the tent, and made it improbable that a dingo had seized Azaria while she lay asleep in the tent. It could be inferred with certainty that the clothing had been buried and exhumed, and that there had been human interference with it after its exhumation; the probable object of the interference was to make it appear that the clothes had been dragged and torn by a dingo. The only persons known to have any possible motive to interfere with the clothing were Mr. and Mrs. Chamberlain. (at p567)

76. The blood in the car, and on the objects in the car such as the camera bag and the scissors, could, as a matter of bare possibility, have come there innocently, or could have resulted from some happening in which Mr. and Mrs. Chamberlain had played no part and of which they were unaware. However it was, to say the least, improbable that all of the blood could have been caused by Mr. Lenehan's bleeding or by the other incidents which were recounted by the accused by way of explanation. The jury were entitled to think that the evidence that blood had flowed down the side of the front passenger's seat and thence onto the floor was of particular significance, since it indicated that quite extensive bleeding had occurred while someone was sitting on the front seat of the car. It is improbable that blood could have got into the car without the knowledge of Mr. and Mrs. Chamberlain. The condition of the camera bag suggests that it had been cleaned, but not with complete effectiveness. (at p568)

77. None of these facts, regarded in isolation, would have entitled the jury to infer that Azaria had been murdered or that Mrs. Chamberlain was responsible for the murder. When the evidence of all these matters is considered together, however, its probative force is greatly increased. When, in addition, one considers the evidence as to the presence of the blood on Mrs. Chamberlain's tracksuit and trackshoes, the presence of the tufts, and the conduct of the accused, including their statements which the jury were entitled to regard as false, the evidence as a whole entitled the jury safely to reject the hypothesis that the baby was removed from the tent by a dingo, and to be satisfied that the baby's throat had been cut in the car by Mrs. Chamberlain. Further, the jury were entitled to conclude that Mrs. Chamberlain could not possibly have disposed of the body without the knowledge and assistance of her husband, and that the evidence as a whole pointed to his complicity in the crime as an accessory after the fact. (at p568)

78. For these reasons the jury were entitled safely to convict. It is true that many incidents of the crime remain unexplained. However, the Crown does not bear the onus of solving all the mysteries that may have attended a crime, or of establishing in every detail how it was committed, provided that it is proved satisfactorily that the crime was committed, and that the accused committed it. (at p568)

79. There was other evidence which, if accepted, made the Crown case one of overwhelming strength - in particular, the evidence that the blood in the car and under the dashboard was foetal blood, and the evidence of Professor Cameron that he saw on the jumpsuit the imprint of a hand in blood. Since we

regarded that evidence as unsafe to form the basis of a conclusion, we have not taken it into account in deciding whether the convictions were unsafe or unsatisfactory. It is true that that evidence may have made a great impression on the jury. However, it was relevant evidence which the Crown was entitled to lead and the trial was not vitiated by the admission of the evidence. The result which we have reached is that a reasonable jury, giving effect only to the evidence which in our view could safely be acted upon, ought not to have entertained a reasonable doubt as to the guilt of the accused. The convictions were not unsafe or unsatisfactory. (at p569)

80. We would grant special leave to appeal, but would dismiss the appeal. (at p569)

JUDGE2

MURPHY J. Mrs. Chamberlain was convicted in the Northern Territory Supreme Court of murdering her nine-week-old baby by cutting her throat at Ayers Rock on 17 August 1980 and sentenced to life imprisonment. Her husband Mr. Chamberlain was convicted of being an accessory after the fact and sentenced to eighteen months' imprisonment, which was suspended on his entering into a good behaviour bond. (at p569)

2. Jury System. The jury is a strong antidote to the elitist tendencies of the legal system. It is "the means by which the people participate in the administration of justice" (Jackson v. The Queen (1976) 134 CLR 42, at p 54). The greatest respect should be given by appeal courts to jury verdicts and any attempt to downgrade the jury to a mere nominal or symbolic role should be restricted. (at p569)

3. However, inevitably, juries sometimes make mistakes. History demonstrates that in Australia as elsewhere, despite the protection of the jury system and other safeguards, sometimes the innocent are convicted. Because of such miscarriages courts of criminal appeal have been given power to set aside convictions, not only where the judge wrongly admitted or rejected evidence, or misdirected the jury, but also where although there was evidence which could justify the verdict, the appeal court considered it unsafe. The appellate system thus operates as a further safeguard against mistaken conviction of the innocent. (at p569)

4. Federal Court's Appellate Powers. The Federal Court of Australia Act 1976 enables the Federal Court to set aside a verdict if it concludes that it is unsafe and unsatisfactory for any reason, for example, prejudicial pre-trial publicity or misconduct of the trial judge or prosecution. The power is available even if there was enough evidence to convict, if the appeal court thinks that there are features of the case which make the verdict unsafe or unsatisfactory. In this regard I agree with the reasons of the Chief Justice and Mason J. Duff v. The Queen (1979) 39 FLR 315; 28 ALR 663 , represents a too narrow view of the Federal Court's appellate power and should be overruled. (at p570)

5. Presumption of Innocence. Our criminal system presumes every person to be innocent. This fundamental assumption is accompanied by the rule that the prosecution must prove guilt beyond any reasonable doubt. An accused person "is entitled to the benefit of every reasonable doubt that is raised in the case" (Reg. v. Phillips (1868) 8 SCR (NSW) 54, at p 57). Nevertheless, even in the course of this appeal the presumption of innocence often seemed to have been forgotten. Instead, in examining the evidence, there was a tendency to apply a presumption of guilt, as if Mr. and Mrs. Chamberlain were required to prove their innocence. (at p570)

6. Proof of Crucial Elements. I agree that requirement of proof beyond reasonable doubt means that any fact should not be accepted for the purpose of inferring guilt unless, in the light of all the evidence, existence of that

fact is established beyond reasonable doubt. Every crucial element must be proved beyond reasonable doubt. (at p570)

7. Circumstantial Evidence. The case against Mrs. Chamberlain was based on circumstantial evidence. For a conviction to stand, where the evidence of guilt is circumstantial, that evidence must be so cogent and compelling that it convinces the jury that no rational hypothesis other than the accused's guilt can account for the facts (Reg. v. Onufrejczyk (1955) 1 QB 388, at p 394 ; Peacock v. The King (1912) 13 CLR 619). Because of the absence of a body, and of any motive, and of any identified weapon, and of any confession, and because of the good characters of the accused, rigorous proof of guilt was required. (at p570)

8. The Crown Case. The Crown charged a murder committed in a most gruesome manner, within an extremely limited time and in difficult circumstances where the chances of discovery were high. During a period of between five and ten minutes Mrs. Chamberlain is alleged to have gone with Azaria and her son Aiden from the barbecue area to their tent some 20-30 metres away; donned tracksuit pants over her dress; taken Azaria from the tent to the family car which was parked alongside; slit Azaria's throat with a sharp instrument (possibly scissors) while sitting in the front passenger seat of the car; hidden the body (possibly in a camera bag in the car); returned to the tent with blood on her hands and the tracksuit pants; removed the tracksuit pants and washed her hands in an icecream container; and returned, quite composed, to the barbecue area with Aiden. (at p571)

9. In view of the Crown's claim that a great deal of blood was shed in the car during the killing, Mrs. Chamberlain must also have managed to clean up at least the obvious signs of blood in the car during this period. The registered nurse who travelled in the car later in the evening did not notice any blood. Mrs. Chamberlain also found time during these few minutes to put Aiden to bed in his sleeping-bag, hear him complain he was still hungry and to collect a can of baked beans from the car. Aiden, almost seven years old, appears to have been awake throughout this period, apparently remaining in the tent until he returned with Mrs. Chamberlain to the barbecue area. Despite the somewhat bizarre goings-on that he would therefore have been likely to witness (assuming the Crown's theory to be valid) it is reported that on the night of Azaria's disappearance he told one witness (Mrs. Lowe) that "the dog had got his baby in its tummy" and when asked by another witness (Mrs. West) if the dingo had taken the baby, he answered that it had. (at p571)

10. It is also important to examine the circumstances surrounding the evidence of the baby crying. At the trial, Mrs. Lowe stated that, after Aiden and Mrs. Chamberlain had returned from their tent, she (Mrs. Lowe) had heard the baby cry "but not being my child I didn't sort of say anything. Aiden (Chamberlain) said: 'I think that's bubbie crying' or something similar. Mike (Chamberlain) said to Lindy (Chamberlain): 'Yes, that was the baby, you better go and check.' Lindy went immediately to check". The Crown has not alleged that Mr. Chamberlain was an accessory before the fact and it is clear that if Mrs. Chamberlain had committed the murder, she would not yet have had a chance to tell him. So three people, none of whom on the Crown's hypothesis was yet a party to the alleged crime, and one of whom was an entirely independent witness who had only met the Chamberlains that night, heard the baby cry after it is said to have been dead. Mrs. Chamberlain, the alleged murderer, did not. Mrs. Chamberlain did however act as a result of the advice of the others and that was when the baby's disappearance became known. (at p571)

11. If Mrs. Chamberlain had been the one to hear the cry, especially if no one else had heard it, it might have given some colour to the Crown case, since it could be seen to be a preparation for a staged "discovery" of the missing baby. What in fact happened could not have been part of a plan,

however, and it would certainly have been risky for a murderer to pursue a course which involved the remote chance that someone else would hear a noise that could be attributed to the murdered baby before the dingo's involvement could be asserted. (at p572)

12. Unsatisfactory Features of the Crown Case. The evidence has been dealt with comprehensively in the judgment of the Chief Justice and Mason J. and there is no need to go over it at any length. However it is essential to a proper understanding to note seven vital elements: 1. the complete absence of any motive for Mrs. Chamberlain to have killed her baby; 2. the fact that Azaria's body has never been found; 3. the absence of any identified murder weapon; 4. the fact that there have been no admissions of guilt from either applicant; 5. that the murder by a mother of her baby is quite contrary to nature and requires some explanation; it sometimes occurs when a mother's mind is disturbed or she is suffering post-natal depression but the evidence is that Mrs. Chamberlain was not; 6. the extremely limited opportunity Mrs. Chamberlain had to commit the crime or, if a credible witness is believed, the fact that she had no opportunity to commit the crime; and 7. the undisputed fact that both Mr. and Mrs. Chamberlain are of good character. (at p572)

13. Absence of Motive. The Crown is not required to prove a motive but its absence in conjunction with all the other elements, is disquieting in the extreme. (at p572)

14. Absence of a Body. There seems no doubt, despite the absence of a body, that Azaria died on the night of her disappearance. However, the body's absence means that additional caution must be exercised. We are left only with circumstantial evidence concerning the death. (at p572)

15. Good Character. Evidence of good character is clearly a powerful factor in rebuttal of evidence of guilt. It has been held to be "relevant to the question of (being) guilty or not guilty: the object of laying it before the jury is to induce them to believe, from the improbability that a person of good character should have conducted himself as alleged, that there is some mistake or misrepresentation in the evidence on the part of the prosecution, and it is strictly evidence in the case" (R. v. Stannard (1837) 7 Car & P 673, at pp 674-675, (173 ER 295, at p 296)). "The fact that a man has an unblemished reputation leads to the presumption that he is incapable of committing the crime for which he is being tried" (see Cockburn C.J. in Reg. v. Rowton (1865) Le & Ca 520, at p 530 (169 ER 1497, at p 1502) ; see also Attwood v. The Queen (1960) 102 CLR 353, 359 ; Reg. v. Stalder (1981) 2 NSWLR 9, at pp 16-17). (at p573)

16. Hypothesis of Innocence. The hypothesis advanced by the defence was that the baby was taken by a dog or dingo and it was conceded by the Crown during this appeal that a dingo could have carried the baby away. This was supported by evidence that dingoes were frequently in the camp area and had attacked children and objects including a pillow and a sleeping bag. A dingo had been seen in the area of the camp earlier in the evening, growling was heard by a number of witnesses just prior to Mrs. Chamberlain raising the alarm and dog or dingo tracks were observed near the camp site later in the evening and the following day were seen at the front of the tent and "right on the edge" of the tent corner where Azaria's bassinet had been. Several witnesses, including Mr. Roff the Senior Ranger, reported seeing tracks in the nearby area on the night of the disappearance, which indicated that something, resembling the pattern of a crepe bandage according to Mr. Roff and the imprint of a knitted jumper of woven fabric according to another witness, had been carried by a dog. Nothing else was reported to have disappeared from the camp on that night. These drag marks were backtracked to a point directly opposite the Chamberlains' tent and about 25 yards from it. In view of all the other evidence concerning dog or dingo activity, the fact that the dog or dingo must

have started its journey somewhere and the fact that what was being carried must have come from nearby, it is strikingly consistent with the hypothesis of innocence that the dog tracks and drag marks commenced at the Chamberlains' tent but were no longer visible because they had been obscured by the many searchers who were combing the area in an attempt to find Azaria. (at p573)

17. In his directions to the jury, Muirhead A.C.J. of the Supreme Court of the Northern Territory said:

> "I merely suggest . . . that the evidence merits a finding that on the night of 17 August dingoes did prowl in that area. That they were properly regarded by those, such as Derrick Roff, who had responsibility, as a potential danger, and that they had the strength and capacity to take and carry or drag away, a nine-week-old baby." (at p573)

18. If Mrs. Lowe's evidence is correct that, while at the barbecue site, she heard the cry of a baby come from the Chamberlains' tent, after the alleged murder had, on the Crown's view, occurred, the only correct conclusion is that the Chamberlains are innocent. (at p574)

19. The Crown's "Scientific" Evidence. Failure to preserve the vital evidence of the blood samples from the car prejudiced the defence's right to have them cross-checked. In the United States it has been held that the "government is flirting with the danger of reversal any time evidence is lost or inadvertently destroyed. When evidence is seized, the government should take every reasonable precaution to preserve it" (United States v. Heiden (1974) 508 F (2d) 898, at p 903). Federal investigatory agencies have been required to "promulgate and rigorously enforce rules designed to preserve all discoverable evidence" (United States v. Bryant (1971) 448 F (2d) 1182, at p 1183). Breach of the rules will normally result in a violation of due process and suppression of the witnesses' testimony or setting aside of the verdict (People v. Hitch (1974) 117 Cal Rptr 9, at p 18 ; Bryant (1971) 448 F (2d), at p 1184). The burden of proof is on the government to prove compliance (United States v. Bryant (1971) 439 F (2d) 642, at p 652 ; see also "The Right to Independent Testing: A New Hitch in the Preservation of Evidence Doctrine", Columbia Law Review, vol. 75 (1975), p. 1355; "Criminal Procedure: Government has Duty to Implement Effective Guidelines to Preserve Discoverable Evidence", (1971) Duke Law Journal p. 644). In 1974 the National Forensic Institute Committee of Enquiry recommended the establishment of a national forensic institute to overcome such problems (National Forensic Institute Report of the Committee of Enquiry (1974) Parliamentary Paper No. 58). In 1983 the National Pathology Accreditation Advisory Council in a paper entitled Retention of Laboratory Records and Diagnostic Material recommended certain minimum standards in relation to the retention of diagnostic material. These did not relate to the specific evidential needs of the legal system although the Council stated: "Much longer retention times may be desired and maintained by individual laboratories and practitioners to meet their particular requirements." (at p574)

20. Destruction of such materials reduces the value of any evidence based on them, because of the inability to test the material and cross-check the results, to such an extent as to render it nonscientific and therefore non-expert. ". . . (A) scientific observation is not taken at face value until several scientists have repeated the observation independently and have reported the same thing. That is also a major reason why one-time, unrepeatable events normally cannot be science" (P.B. Weisz, Elements of Biology (1961) p. 4). (at p575)

21. I agree for the reasons stated by the Chief Justice and Mason J. that a finding could not safely be made that the blood in the car was foetal. (at

p575)

22. Other Scientific Evidence. Professor James Cameron claimed that he was able to discern the outline of a small adult hand from the pattern of blood-stains on the baby's jumpsuit. If accepted this was powerful support for the Crown case. Dr. Jones and Dr. Scott, who were the first such experts to view the jumpsuit did not see this print. Dr. Plueckhahn, despite use of a high contrast ultraviolet flourescent photograph, was also unable to discern such a print. This Court viewed the jumpsuit and the photographs. The jury should have been directed that this evidence was not "scientific" but highly imaginative and directed to disregard it. (at p575)

23. Professor Cameron also claimed that the blood on the jumpsuit was consistent only with a cut wound to the throat. Later he qualified this absolute view but still maintained that a cut throat would have been the "principal injury". Dr. Plueckhahn expressly disagreed and said the bleeding could have come from head injuries consistent with a dingo grasping the baby's skull in its jaws. (at p575)

24. Professor Cameron was cross-examined on a recent case in England described as "the Confait Case" where his evidence, devastating against the defendants and resulting in their conviction, was found to be entirely mistaken. He agreed in cross-examination that he had then given evidence without "correct knowledge of all the attendant circumstances". The accused in that case were, after judicial enquiry, awarded 60,000 pounds in compensation for their wrongful imprisonment. This illustrates that it is dangerous to convict on "expert" evidence which is inconsistent with otherwise credible evidence of what witnesses saw or heard. (at p575)

25. Judge's Directions to the Jury. Muirhead A.C.J.'s summing up to the jury was undoubtedly on the whole favourable to the accused. However the above view that a majority of this Court has formed concerning the blood in the car raises a further central issue concerning the summing up. Muirhead A.C.J. told the jury that it was entirely for them to decide which of the expert opinions they should accept, on the presence of the foetal blood. He directed them that they could act "completely on her (Mrs. Kuhl's) evidence, if the other evidence leaves you to have no reasonable doubt as to its validity". In the circumstances of this case that was a misdirection. Eminent experts had raised serious and not satisfactorily answered objections to Mrs. Kuhl's evidence on foetal blood. The judge's directions invited the jury to undertake an unsafe and dangerous assessment. (at p576)

26. The foetal blood was the hinge of the Crown's theory that the baby was murdered in the family car. (at p576)

27. In these circumstances it is not good enough to take the view that this evidence of foetal blood can be set aside, and to look at the rest of the evidence to see if the verdict can be sustained. If that is done the reasoning runs like this. Because of the verdict the jury must have disbelieved not only Mrs. Chamberlain and Mr. Chamberlain but also Mrs. Lowe and the others at the barbecue site, and rejected other evidence which might have raised a reasonable doubt. They therefore rejected the dog or dingo hypothesis leaving murder as the only possibility; therefore the verdict can stand. The error in this approach is that the jury's view of the exculpatory evidence may well have been taken in the light of their acceptance of the scientific evidence as reliable, an acceptance contributed to by the trial judge's summing up. Likewise with other adverse conclusions, and the finding of guilt itself. If in accordance with the directions, the jury accepted the evidence that the blood was foetal, it was irresistible that they should then disbelieve Mrs. Chamberlain and the other evidence pointing to her innocence. The problem is analogous to that where a conviction is challenged because powerful

inadmissible evidence was admitted. It becomes impossible to know whether the inadmissible evidence was relied on and the extent to which it coloured the jury's views on other issues. Once it is accepted that it was unsafe to conclude that there was foetal blood in the car then the conviction of Mrs. Chamberlain was unsafe. (at p576)

28. The Crown contends that the jury were entitled to take a view of the whole of the evidence which would justify a conviction, even if the blood were not accepted as foetal. As I understand it, the Chief Justice and Mason J. accept that contention and as a result would disallow the appeal. In my opinion that is not the correct test. (at p576)

29. The real question is whether the jury might have arrived at its verdict against the accused because they accepted the evidence that the blood was foetal, and whether had they been directed otherwise the result may well have been different. Having arrived at the conclusion that it was unsafe for the jury to accept the evidence that the blood was foetal the verdict should be set aside unless the jury would inevitably have reached the same verdict if they had been directed that the evidence that there was foetal blood was unsafe. As there is no proper basis for concluding that the jury would have reached the same verdict, the conviction should be set aside. Not only for that reason, but because I am of the firm view that the rational hypothesis advanced by the defence was not excluded beyond reasonable doubt and that the presumption of innocence was not displaced, Mrs. Chamberlain is entitled to a judgment of acquittal. (at p577)

30. Mr. Chamberlain. If Mrs. Chamberlain is acquitted, Mr. Chamberlain must also be. If her conviction stands it does not follow automatically that he is guilty. I have already referred to the presumption of innocence generally. Mr. Chamberlain was entitled to the presumption of innocence, even if he was in the company of a person who is proved to have committed a crime to which he is charged as accessory. It is not enough to brush his case aside on the basis that if she is guilty, he must also be guilty. On the evidence the presumption of his innocence was not displaced. He should have been acquitted (see Andrews v. The Queen (1968) 126 CLR 198, at p 211 ; Reid v. The Queen (1980) AC 343, at pp 349-350). (at p577)

31. In each case special leave to appeal should be granted, the appeal allowed, the conviction set aside and judgment of acquittal entered. (at p577)
JUDGE3
BRENNAN J. At about 8 o'clock on the night of Sunday 17 August 1980 a baby girl, Azaria Chantel Loren Chamberlain aged nine weeks, disappeared from the top camping area near Ayers Rock. She had been brought to the camping area on the evening of 16 August by her parents, Alice Lynne Chamberlain and Michael Leigh Chamberlain, together with her brothers Aiden aged six and Reagan aged four. Azaria has not been seen since the Sunday night. Her body has not been found, but there is no doubt about Azaria's death. Her clothes, heavily blood-stained, were found a week later in the bush. (at p577)

2. After two coronial inquiries, Mrs. Chamberlain was charged with Azaria's murder and Mr. Chamberlain was charged with being an accessory after the fact of that murder. They were tried in the Supreme Court of the Northern Territory. The jury found them guilty. Mrs. Chamberlain was sentenced to life imprisonment; Mr. Chamberlain was sentenced to eighteen months' imprisonment but he was ordered to be released on entering into a recognizance to be of good behaviour. (at p577)

3. They appealed against their convictions to the Federal Court of Australia. The appeals failed. They seek special leave to appeal to this Court. In substance their argument is that, on the evidence adduced at the trial, the guilty verdicts were unsafe and unsatisfactory, and that the Federal Court

should have set the verdicts aside and substituted verdicts of acquittal. In my opinion, this was a case where the question of guilty or not guilty turned entirely upon what evidence was accepted and what was rejected. That was preeminently a question for the jury and for the jury alone. An appellate court possesses no superior ability to decide whether facts should or should not be found when they are facts of the kind upon which the verdict in this case depended or, in the circumstances of this case, to decide whether or not an inference of guilt should be drawn. In my opinion, as there was evidence before the jury which entitled them to find Mr. and Mrs. Chamberlain guilty of the crimes charged against them, and as there was no error of law affecting the conduct of the trial, there was no ground for interfering with the jury's verdicts and the Federal Court was right to dismiss the appeals. (at p578)

4. The chief ground upon which special leave was sought was that the majority of the Federal Court had held that that Court should not intervene if a reasonable jury could have found the applicants guilty. That, it was said, was a narrower criterion than would have been applied by an appellate court exercising the powers conferred by the criminal appeal statutes of the respective States - statutes which, being commonly derived from the Criminal Appeal Act 1907 (U.K.), are in substantially common form. It was submitted that, under the common form statutes and a fortiori under the broad general provisions of the Federal Court of Australia Act 1976 (Cth) ("the Act"), a verdict should be set aside if the appellate court, acting upon no more than the exhibits and the printed record of the evidence given at the trial, itself entertains a reasonable doubt about the appellant's guilt. And so the evidence was canvassed over again, though selectively, in order to engender the doubt to which this Court was invited to give effect. (at p578)

5. I examine first the evidence given at the trial in order to see whether the evidence reveals such defects or weaknesses in the prosecution case that a reasonable jury could not convict or that the verdicts returned by the jury were unsafe and unsatisfactory. Neither the common form statute nor the Act empowers an appellate court to interfere with a conviction by a court of trial founded on the verdict of a jury unless the verdict is set aside. (at p578)

6. At the time when Azaria disappeared, there were five families camped in the top camping area. Their tents and vehicles were more or less in a row: Mr. and Mrs. West and their twelve-year-old daughter were camped in the northern-most position, then Mr. and Mrs. Lowe and their daughter Chantel Lowe aged eighteen months, then the Chamberlains, then Mr. Haby and family and, in the southern-most position, Mr. and Mrs. Whittacker and their daughter. To the west of the camping row and parallel to it there was a post and single rail fence beyond which there was some low vegetation; to the east there was a roadway and, beyond that, a sand dune covered by some low scrub. (at p579)

7. The Chamberlains had pitched a tent next to their car. It had flaps which opened to the west, that is, facing towards the Rock. The car was facing in the same direction. In that direction there was a barbecue area. It was about 20 to 25 metres from the tent flaps beyond the post and rail fence and the area covered by low vegetation. The barbecue area was illuminated by a 100-watt yellow portable flood-light attached to a post and shining across the barbecue area in an easterly direction so that some light from it reached the Chamberlains' tent. There was no other light in or near the tent. On the night of 17 August, Mr. and Mrs. Chamberlain with Aiden and Azaria and Mr. and Mrs. Lowe with their baby had been together at the barbecue area. Reagan was in his sleeping-bag asleep in the tent. Mrs. Chamberlain, carrying Azaria and accompanied by Aiden, left the barbecue area and went towards their tent. She returned with Aiden. Shortly after she returned to the barbecue area and in circumstances presently to be mentioned she went back towards the tent and raised the cry: "That dog's got my baby" or "My God. My God. A dingo got my baby." When the cry was raised some of the people from nearby went off

searching over the sand dune which lay to the east on the other side of the road behind the camping area. The senior ranger of the area, Mr. Roff, and a local police officer, Constable Morris, were called. They organized a major search party of about 250 to 300 people who combed over the sand dune and some areas to the north and south of it until about 1.30 in the morning. They found some tracks and drag marks but they did not find the baby. The search recommenced at about 5.30 that morning. Again nothing was found. It had been an extremely cold night. If the baby had been taken by a dingo, it would almost certainly have been dead by morning.
The Dingo Hypothesis. (at p579)

8. Mrs. Chamberlain indicated that the dingo had disappeared along the southern side of the tent and car, making for the sand dune to the east. Mr. Haby, who had gone searching when the alarm was raised, found a dog or dingo track on the top of the sand dune which was a bit bigger than other tracks and along this track he saw "an area where obviously it had put something down - this dog or dingo - and had left an imprint in the sand which to me looked like a knitted jumper or woven fabric and then it obviously picked it up because it dragged a bit of sand away from the front and kept moving". The imprint, of oval shape, was about 7 inches long and 5 or 6 inches wide and there was a moist spot in the sand next to it. There was no colour in the spot but in the torchlight Mr. Haby thought it could be saliva or blood. This spot was no more than 100 yards from the Chamberlains' tent. Mr. Haby told Mr. Roff about what he had found and Mr. Roff and Constable Morris inspected the impression. The track petered out but the searchers then found another drag mark lower down on the dune. It was a much larger one and Mr. Roff tracked this drag mark to about 25 yards from the Chamberlains' tent directly opposite it. This track was 8 or 10 inches in width and Mr. Roff described it in these terms:

> "(I)t was a shallow drag mark and obviously something had been dragged along, and obviously in that track in areas there was dragging vegetation, leaves and grass material, and there were other points where I formed the impression an object had been laid down, forming an impression, . . . a pattern very similar to what I would relate . . . to a crepe bandage." (at p580)

9. The track which Mr. Roff described was followed the next day to where it intersected with a road about 8.5 kilometres from the camp site but no trace of Azaria was found at that time. Although it is not clear whether there were one or two tracks, the existence of tracks might support - it is at least consistent with - the hypothesis that Azaria's body had been carried off by a dingo. That hypothesis is supported also by some of the known capacities and habits of dingoes. There were some eighteen to twenty-five dingoes in the vicinity of the camping ground at Ayers Rock and more in the surrounding area. Dingoes had become accustomed to visitors to the Rock and had lost some of their natural fear of humans. They were accustomed to foraging around camp areas, going through rubbish tins, taking washing off the lines, biting children. Mr. Roff had been so concerned by the brazen conduct of the dingoes that he had earlier written to his superiors reporting that the dingo "is an alert, extremely intelligent predator and is well able to take advantage of any laxity on the part of prey species and, of course, children and babies can be considered possible prey". An incident was described in evidence where, two days before the disappearance of Azaria, a dingo had taken a cushion from under a woman's head while she was sleeping and returned shortly afterwards and tugged at the sleeping bag over her feet. There was evidence also of the strength of dingoes. A dingo had been seen to carry a wallaby weighing 20 to 25 pounds and another had been seen to bite through steel ropes. The animal has a large jaw capacity and it would have been able, following its accustomed

predatory method, to grasp a baby's head in its jaws, shake the baby violently and run off with it over long distances. Azaria weighed only about 9.5 pounds. (at p580)

10. Among the boulders near the base of Ayers Rock there are some dingo lairs, and dingo pads or tracks can be seen showing the paths regularly followed by these animals. On 24 August, near the base of the Rock on its south-western face Mr. Goodwin found clothes which Azaria had been wearing when she disappeared. The clothes were together on the ground near two of these lairs and close to some dingo pads. The place where these clothes were found was about 5 or 6 kilometres from the camp site and about 10 kilometres from the intersection of the track which Mr. Roff had followed and the road. Azaria had been wearing a cotton singlet, a disposable nappy and short baby bootees, covered by a towelling jumpsuit fastened with press studs from the crotch to the neck. Mrs. Chamberlain says that she was wearing also a matinee jacket but Constable Morris did not recall her mentioning this garment to him when she was listing the clothing Azaria had been wearing. No trace of a matinee jacket has been found. When Azaria's clothes were found four press studs on the top of the jumpsuit were open. There was no trace of the baby's body except for heavy bloodstaining particularly around the collar of the jumpsuit and the top section of the singlet. A portion of the left arm of the jumpsuit gave the appearance of being torn out. A hole and an apparent tear on the collar of the jumpsuit were obvious. There was some vegetation and dirt on the clothing. Dingoes are known to bury their prey. Thus there was much to support the dingo hypothesis, at least on first appearances.
Grounds for Rejecting the Dingo Hypothesis. (at p581)

11. On the trial of Mr. and Mrs. Chamberlain, the defence bore no onus of proof. They did not have to prove the truth of the dingo hypothesis in order to prove their innocence. On the other hand, if the prosecution proved to the jury's satisfaction that the dingo hypothesis was false, the only hypothesis which the defence advanced or which the defence was prepared to countenance was thereby excluded, and Mrs. Chamberlain's assertion that a dingo had taken the baby acquired a sinister significance. (at p581)

12. The position and condition of the clothing as it was found by Mr. Goodwin on 24 August 1980 were advanced by the prosecution as important components in the mass of evidence from which murder was to be inferred and which was said to warrant rejection of the dingo hypothesis. Mr. Goodwin's recollection of the position of the clothing is partially supported by Constable Morris who went to the place when Mr. Goodwin reported the find to him. The place was about 200 metres from the road on the south-west of the Rock. It was in an area visited by the Chamberlains during a photography expedition on 17 August. When the clothing was found the jumpsuit was laid out on its back "with the feet facing up in the air". The two bootees were inside the feet of the jumpsuit. The singlet was inside the jumpsuit according to Mr. Goodwin, but Constable Morris thought it was with but not inside the jumpsuit. The singlet was inside out, opposite to the way in which Azaria had been wearing it when she disappeared. The disposable nappy was on the righthand side of the jumpsuit. It had been damaged and some pieces of it had been separated. After Constable Morris arrived he picked up the jumpsuit, opened two press studs below the four already opened, and put in his hand to check what was in the feet of the garment. Mr. Goodwin showed the jury the arrangement of the clothing as he found it, which was in a more compact arrangement than Constable Morris remembered. The prosecution submitted to the jury that a dingo could not have taken the baby's body out of its clothing and left the clothing in this way. The baby's body must have been removed from the jumpsuit with both of the baby's bootees being left (or subsequently replaced) in the feet of the jumpsuit, the singlet taken up over the arms and head so that it was inside out and then placed back in or perhaps beside the jumpsuit, the

nappy taken off and placed on the righthand side of the jumpsuit. In an attempt to rebut the inference of human interference, the defence relied on an experiment in which a dingo had removed the carcase of a kid from a similar jumpsuit undoing only two press studs. The jury were well-equipped to evaluate this evidence. They were entitled to find that a human being had placed the clothing where it was found. Indeed, any other view strains credibility. (at p582)

13. An examination of the clothing furnished further grounds for believing that the clothing had been handled by a human after Azaria had been mortally injured. Vegetable matter was found on the jumpsuit and singlet. The plants from which the material had come all grow in the area where the clothing was found. The principal deposit of vegetable material consisted of fragments of the plant parietaria, a delicate plant which grows only where there is plenty of shade and a moist soil such as exists near the base of the Rock. It does not grow on the plains or sand hills around the Rock. The fragmenting of some of this vegetation indicated that the clothing had been rubbed against the plant. The deposit from the plant had become actually embedded in the fabric of the jumpsuit, some of it adhering to the inside back of the garment within the V formed by the undone top studs of the jumpsuit. It would have been impossible for the fabric to be rubbed directly on to vegetation if the baby's body was inside the jumpsuit at the time. Some of that vegetable material adhered also to the singlet - not to the surface which was outside as Azaria had been wearing it, but to the surface which had been inside and which became the outer surface after the singlet had been taken off her body. The singlet also had three crease lines which protected a clean segment of the garment when dirt had come into contact with its surface. (at p583)

14. The jumpsuit, singlet and nappy were submitted to examination by a number of scientific experts, including Professor Chaikin, who is highly qualified in textile technology. He produced models of the yarns in the texture of the jumpsuit and singlet. He had used a scanning electron microscope to examine the fibres where the jumpsuit was damaged and he showed the jury micrographs (a form of photograph) of what could be seen. The ends of severed fibres at the end of a yarn in the jumpsuit could be seen in the same plane. There was no such distortion of the yarns as would be caused by a tear. Most significantly, Professor Chaikin had found some little cotton tufts still adhering to the fabric at the edge of the damaged areas - a phenomenon that is caused only by cutting. Although fibres in a yarn are fractured as they bunch up under the pressure of a cutting instrument, Professor Chaikin was able to find a nylon fibre which showed a classical scissors-cut surface at the end. His conclusion was that the apparent tears on the left arm, left shoulder and collar of the jumpsuit and a small hole in the back had been cut with fairly sharp scissors. In his opinion that damage could not have been caused by a dingo. This opinion is supported by the absence of tissue remains or blood-stains on the cut edge of the hole in the left arm, except for a drop of blood below the hole apparently unconnected with any injury to the baby's left arm. Dr. Scott, who was the forensic biologist in the Northern Territory at the time, tested parts of the jumpsuit for proteins that are found in dingo and dog saliva. He found none, though he took samples from near the tears and damage to the collar of the jumpsuit, the hole in the left arm and what he called the "sort of balance point in the centre rear". However, that negative finding did not conclusively eliminate the dingo hypothesis. If a dingo had carried the baby by her matinee jacket, the saliva may have been deposited on that garment or the tell-tale protein of the saliva may have been washed away by rain (there being some suggestion of a shower before 24 August). (at p583)

15. There were two holes in the back of the singlet, though there was no damage to the corresponding position of the jumpsuit. The singlet was double-ribbed cotton, an extensible fabric that does not puncture unless great force is applied to it or it is held under tension when the puncturing force

is applied. Professor Chaikin's opinion was that the holes were made either by cutting or by holding the singlet under tension and puncturing it perhaps, but not necessarily, by using a pair of scissors. He was unable to reproduce such holes by mechanically driving a dingo's tooth into the fabric, even if the tooth were driven further than the gum line into the fabric as it lay upon the carcase of a freshly-killed rabbit. However, Professor Chaikin would not exclude the possibility that an animal could cause damage of the kind observed in the singlet by holding part of the garment in its paws and part in its teeth thereby placing the fabric under tension. (at p584)

16. If Professor Chaikin's oral evidence and visual proofs were accepted by the jury, the hypothesis that a dingo had caused the damage to Azaria's clothing could not be sustained. The only substantial support for the hypothesis that a dingo caused the damage to the clothing came from Dr. H. J. Orams, who teaches the subject of animal dentition and skulls. His qualifications in that field were not challenged, but he had no expertise in textiles. His opinion was that the damage to the jumpsuit and the singlet was consistent with damage done by the canine or carnassial teeth of a dingo, an opinion based on his knowledge of the scissor-like action of those teeth and upon his belief that there were tears (as he was willing to describe them) in the clothing. However, Dr. Orams said that the scissors-like teeth of a dingo leave an uneven shredded edge unlike the cut edge made by sharp scissors. I do not read his evidence as challenging Professor Chaikin's opinion; rather he was limiting his opinion to the action of dingo teeth without purporting to possess expert qualifications about their effect on the fabric of the jumpsuit or singlet. Other expert opinion evidence was offered as to the cause of the damage to the clothing. Some of it confirmed Professor Chaikin's opinion, none of it challenged his knowledge, observations or the inferences he drew from what he showed the jury in the micrographs. (at p584)

17. The position of the clothing when Mr. Goodwin found it, the vegetable matter which was adhering to the jumpsuit and singlet and the damage to those garments (if Professor Chaikin's evidence were accepted) fully supported a finding that a human had rubbed the jumpsuit and singlet on some vegetation, principally parietaria, had cut the jumpsuit and made holes in the back of the singlet and placed the bundle of clothing near the dingo lairs and dingo pads where Mr. Goodwin found them. If the jury did so find, they would have had to consider whether the dingo hypothesis could yet be sustained. Is it a reasonable possibility that a human being found the baby and the clothes or perhaps the clothes alone after the dingo had left its prey, had rubbed vegetable material onto the jumpsuit and singlet, cut the jumpsuit and damaged the singlet and then arranged the articles of clothing in the position in which they were found by Mr. Goodwin near the dingo lairs and dingo pads? If a dingo had killed Azaria, why would a person who came upon the clothing fail to report the find? Why would he deal with the clothing so as to give verisimilitude to the dingo hypothesis? These questions were to be answered according to the common sense of the jurors. They were entitled to reject the hypothesis that some innocent intervener was responsible for the placing of the clothing where it was found by Mr. Goodwin and its damaged condition at that time. Rather, the evidence which points so strongly to human activity in rubbing vegetable material on the clothing, cutting the jumpsuit and making holes in the singlet and in placing the clothing near the dingo pads and dingo lairs, suggests that human activity was responsible for Azaria's disappearance. That inference is strengthened by the blood-staining on the jumpsuit and singlet. (at p585)

18. There was very heavy blood-staining right around the neck of the jumpsuit, produced by a pooling of blood inside the neck which was fastened up when the pooling occurred. Some blood had run down over the left shoulder and some had flowed on to the top part of the garment on the right-hand side at the back of the neck. Professor Cameron, a forensic pathologist of vast

experience and renown, said that the only way in which this pattern of bleeding could be produced was by cutting across or around the neck - a fatal injury that must have been caused by a human. Other pathologists agreed that the blood must have flowed from one or more wounds in the neck or above. Professor Cameron and Drs. Jones and Scott, called for the prosecution, and Dr. Plueckhahn, called for the defence, did not exclude the possibility of bleeding from a head injury, though Professor Cameron would exclude the possibility that a head injury was the sole cause of the bleeding and Dr. Jones favoured the view that the blood came from an injury to the neck. Professor Cameron pointed out to the jury that with a head injury there are rivulets of blood which drain down missing the collar. Of course, it is essential to the dingo hypothesis that a head injury be the source of the blood flow. That phypthesis attributes Azaria's disappearance to a dingo seizing her head in its jaws, lifting her from a carrying basket into which she had allegedly been tucked in the tent and carrying her through the flaps of the tent away into the bush. There was a body of evidence (including the appearance of the jumpsuit itself) to support an inference that the blood which had flowed directly on to the jumpsuit had come from a wound in the neck. But the blood on the jumpsuit did not all come directly from the fatal wound. There were some blood marks on the jumpsuit which had been transferred to the surface of the jumpsuit from another surface bearing Azaria's blood. The prosecution contended that these smear marks came from the hands of her murderer. Some of these smear marks were on the front of the jumpsuit, some on the back. Those marks could not have been placed on the garment by wiping it against a pool of blood in the sand for there were no grains of sand adhering to the blood. Although there was sand in and on the jumpsuit, the sand had come into contact with the blood-stained parts of the garment only after the blood had dried. Some small deposits of Azaria's blood were found subsequently on articles in the tent. Could these deposits have been the source of the transferred blood? There were one or two drops of Azaria's blood on a large purple baby blanket, a smear of her blood on a small purple baby blanket, a couple of spots on Mr. Chamberlain's waterproof sleeping bag, some smears on Reagan's waterproof parka jacket and a very small amount (less than a millilitre) on a floral mattress. There may have been a drop on the sleeve of a raincoat, and some drops on the legs of Mrs. Chamberlain's tracksuit. Some of these deposits could themselves have been transferred from another blood-stained surface. There was very little blood in the tent; none in the carrying basket into which Mrs. Chamberlain said that she had tucked the baby or on the bunny rug in which Mrs. Chamberlain said she had wrapped her. If a dingo had lifted the baby out of the carrying basket, it is difficult to envisage any movement of the baby's body after it had started to bleed which would have left such small deposits of blood on the articles in the tent but which would have produced such diffuse smearing of the jumpsuit front and back. Professor Cameron thought that there was a print of smeared blood on the back of the jumpsuit made by a human hand, but it is difficult to detect a handprint on the coloured slides that were tendered to show the distribution of blood on the garment. However, unless there is some reasonable possibility that might explain the smeared blood marks consistently with the dingo hypothesis, the existence of those marks betokens a human handling of the baby when her life-blood was flowing away or shortly after she died. There was no track of blood through the tent and no spray of blood on the tent flaps (through which Mrs. Chamberlain had said she saw a dingo emerge shaking its head). To maintain the dingo hypothesis, it was suggested that a dingo's teeth or mouth may have staunched the flow of blood while the baby was inside the tent. Yet, to give credence to that suggestion, it must be postulated that the direct bleeding into the pool around the neck - chiefly venous bleeding occurring before death - occurred after the baby had been taken out of the tent and while she was being carried off into the bush. There was extensive evidence given by the expert witnesses relating their opinions to the observable state of the exhibits. The jury, who had the clothing in front of them against which to check the opinions expressed by Professor Cameron and

the other expert witnesses, were entitled to come to the conclusion expressed by Professor Cameron that the blood on the clothing showed Azaria's throat had been cut by human agency. (at p587)

19. From the position in which the clothing was found and its condition at the time (vegetation, cut and punctured fabrics and blood-stains), the jury might well have concluded that Azaria had been murdered by someone. If the jury reached that conclusion, there was, in my opinion, sufficient evidence to support it beyond reasonable doubt. Mrs. Chamberlain, who was the last adult person known to have seen Azaria alive, was the obvious suspect. The jury would no doubt have looked especially closely at the grounds which Mrs. Chamberlain may have had for raising the dingo hypothesis. Mrs. Chamberlain alone claimed to have seen a dingo at the tent at about the time of Azaria's disappearance and she alone claimed to have some reason for believing that the dingo which she saw carried Azaria away. The accounts of the relevant events which Mrs. Chamberlain had given to others at the camping area, to police officers, and to the first coronial inquiry were proved in evidence at her trial, and she gave evidence at the trial. The accounts are not identical. The starting point, however, is fairly constant, Mrs. Chamberlain says that she took Aiden and the baby from the barbecue area back to the tent and put the baby in her carrying basket at the back of the tent. Aiden got into his sleeping bag and said that he was still hungry. Leaving Aiden in the tent, Mrs. Chamberlain went to the car and opened the driver's side door to get a tin of baked beans. The car doors were not locked. She came back to the tent, got Aiden and, without zipping up the flat of the tent, she and Aiden went back to the barbecue area. Shortly afterwards Mr. Chamberlain said to her, "Is that bubby crying, I think, didn't she go to sleep?" or words to that effect. Mrs. Chamberlain replied, "I don't know, can't hear her." She left the barbecue area walking towards the tent. (at p587)

20. According to Mr. Lowe, Mrs. Chamberlain had gone only 5 yards away from the barbecue area when "she came out with an outburst: 'That dog's got my baby'", and then "she broke into a run . . . in the direction where the dog had presumably gone, and then she changed direction and went straight to the tent". The outburst "raised a hue and cry". Mrs. Lowe said that Mrs. Chamberlain was "inside the railings" that is, on the barbecue side of the fence, when she cried out, "'That dog's got the baby.'" Then, according to Mrs. Lowe, Mr. Lowe and Mr. Chamberlain "ran in towards her in the direction that she was looking out, to the right, like, further to the south side of their car, out in that general area. They went off searching in that area. . . ." Mrs. West, who was inside her tent, heard Mrs. Chamberlain call out, "My God. My God. A dingo has got my baby." (at p588)

21. Mrs. Chamberlain had seen many dingoes before she came to Ayers Rock. She told Inspector Gilroy the next day that she had seen "a youngish dog, and certainly a very fit dog" come out of the tent when she was half-way back to the tent from the barbecue area. She had seen a similar dingo earlier that day, but she was able to distinguish the two as she explained to Detective Sergeant Charlwood in an interview on 30 September 1980:

> "They were both the same golden colour neither had dusty coats. The shape of the bridge of the nose was similar, the pointed ears were straight on both sides and had a few longer hairs on the outside edge making them look a little distinctive."

Immediately after she raised the cry, Mrs. Chamberlain told Mr. Haby "a dingo has taken my baby" and asked for a torch. In reply to the question: "Did you see (it) carry out the baby?", she said: "No. It wasn't carrying anything." She told Mrs. Whittacker that she thought at first that the baby had fallen out of the carrying basket and she searched around and could not find it. She told Mr. Roff as soon as he arrived on the scene at about 8.20 p.m. that she

did not see anything in the dingo's mouth. She and Mr. Roff then went into the tent to make sure the baby was not there. When Constable Morris first arrived, she told him that the dingo appeared to have something in its mouth, but about an hour later she said that, when she had seen the dingo near the entrance to the tent, it had had nothing in its mouth and that she did not recall making her earlier statement. The next day, 18 August, she told Inspector Gilroy that she did not see anything in the dingo's mouth "because that was below the level of the light". If the baby had been carried out of the tent by a dingo whose nose and ears Mrs. Chamberlain was able to describe in some detail, it is remarkable that she did not see the baby whose whole body from the neck downwards (including the hands and feet) was dressed in a white jumpsuit. And if Mrs. Chamberlain did not see the baby, it is surprising that she should have cried out: "that dog's got my baby". If she cried out before she went into the tent, as both Mr. and Mrs. Lowe asserted, then it is difficult to account for her going into the tent instead of chasing the dingo. Mrs. Chamberlain herself said at the first inquest:

> "When I last saw it before I went into the tent - the last time I saw it it was heading out of the tent past the car. I didn't follow it with my vision because I was more interested in what was in the tent than following it. If I had realized what had happened I would have gone straight after the dog instead of into the tent, but I had no idea that anything like this would have happened." (at p589)

22. On 18 August, when Inspector Gilroy interviewed Mrs. Chamberlain, she said that, seeing the dingo coming out of the tent flaps, she yelled at it to get out of the road and she "dived straight for the tent, to see what had made the baby cry", that she then saw the baby was missing, that she came straight out of the tent, called to Mr. Chamberlain that the dingo had taken the baby and gave chase to the dingo which ran into the bush. (at p589)

23. Mrs. Chamberlain was further interviewed by Detective Sergeant Charlwood at Mount Isa on 30 September. She then said:

> "Halfway back I saw the head and chest of a dingo trying to get out of the tent. It was shaking its head from side to side with its nose down the way it was shaking it looked like it was trying to get something through the tent fly. Our shoes were all along the inside of the tent, what ever it was the dingo was having difficulty getting it out. I thought it may have had my husband's shoe and it was swinging by the laces. I yelled 'go on get out' thinking it would drop it and run. . . . I had paused when I first saw the dingo after I yelled I started running towards the tent . . . I called there was a dingo in the tent. I remembered I was going to the tent 'cause the baby had cried. I felt sick - it occurred to me dingos are wild animals - if she had cried she had been disturbed. When she first went to sleep she was hard to disturb and therefore may have been attacked. This all flashed through my mind in a matter of four or five seconds. I thought she may need immediate first aid. I am a first aider with a St. Johns certificate. When I got to the railing I could see her blankets were scattered between the carry cot and the door. They were in three different places. Reagan was sleeping peacefully with his sleeping-bag hood on and his face buried in his pillow. There was no visible flesh anywhere. I dived straight to the back of the tent instinct told me she was gone. Reason told me it was not possible. I felt in the carry cot to make sure she was not there even though I could see she wasn't. I scrambled back to the door backwards feeling as I went the blankets to make sure she was not unconscious and lying under one of the blankets. She was very tiny approximately 9 pound 4 ounces bareweight. I felt Reagan as I went past to make sure he was really still there as I backed out the tent I called to Michael, 'The dingo's got my baby.' When I

had previously yelled at the dingo it had run out of the tent across the front of the car and into the shadow. As I was calling to Michael I was running in a direction the dingo had gone around the front of the car. Michael said, 'What?' As I reached the front corner of the car left-hand corner at the time Michael answered I noticed the dingo standing motionless and slightly behind the rear of the car in its shadow. Approximately the middle of the distance between the two railings. It had its back to me but at a slight angle with its whole body visible, its head was turned slightly as if listening. I did not see anything in its mouth, my mind refused to accept what was happening, I'm glad I did not. As I appeared it ran swiftly on an angle to the right into the scrub towards the sand hills. I did not hear it move the night was very quiet. I cut across the angle to where it was heading I answered Michael's question as I ran. I repeated, 'the dingo has got the baby.'" (at p590)

24. This was also the version of events which she gave at the first inquest. Her depositions at the second inquest were not allowed into evidence at the trial. Mr. Chamberlain said in his evidence that he first heard that a dingo had the baby as Mrs. Chamberlain "was racing from the tent". If Mrs. Chamberlain did not raise the hue and cry until after she went into the tent, Mr. and Mrs. Lowe are gravely mistaken in their recollections. If the Lowes' recollections are accurate in this respect, Mrs. Chamberlain's cry that the dog had got the baby cannot be accounted for by her stated knowledge or belief at the time. (at p590)

25. Mrs. Chamberlain was cross-examined. Her demeanour under cross-examination must have been crucial to the jury's verdict. A jury makes allowances for mistakes in recollection or observation - and the jury's view of the honesty or dishonesty of the mistakes determines whether the allowance counts in favour of one side or of the other. The jury were entitled to regard cross-examination of Mrs. Chamberlain about her raising the hue and cry as important. In the light of her earlier statements, they may have thought that her answers in cross-examination were honestly confused or they may have thought she was deliberately prevaricating, for on this occasion she maintained that she raised the cry both before entering and after leaving the tent:

"When was it you called out that the dingo has the baby? . . .
Just before I went into the tent and again just afterwards.
When you called that out the first time there was no doubt in your mind that the dingo had the baby, was there? . . . That's correct.
Where were you then? . . . When I first called out?
Yes? . . . Somewhere between climbing the railing and diving into the tent.
. . .
Were you at the railing when you called out that the dingo had the baby? . . . I was somewhere between the railing and the tent. I was running flat out. I didn't stand still at any stage.
Where was the dingo then? . . . It had left and gone, this direction. South.
On your story, it must have been carrying the baby? . . . Yes.
You were convinced, when you yelled out, that it was carrying the baby, were you? . . . Yes.
But you did not chase it? . . . I did chase it.
When? . . . I checked the tent first, just in case it dropped it, and then chased it.
What were you checking the tent for? . . . To see whether she'd been dropped.
You were convinced when you saw the dingo emerge that it had the baby, were you not? . . . I was convinced that it had something, right by the

door, which I thought was the baby. I wasn't quite sure whether it had dropped her when I'd called and frightened it, or whether it'd taken her as soon as I got a few yards nearer from seeing the dingo in - first seeing it back here. As soon as I got up to about this area, here, I could see that the tent was empty, but I still wanted to check for myself to make certain.

Do you think she might have been dropped inside the tent? . . . I hoped she had.

Of course, if she had been near the entrance, you would have seen her, from the rail, would you not? . . . Not necessarily.

Why? . . . Because the pillows were - the pillows and the things on the pillows would've been 7 or 8 inches high, and she wasn't very big.

What was the dog doing when you yelled out? . . . Shaking its head.

It was the focus of your immediate attention, of course? . . . Yes.

Here was a dog emerging from the tent, shaking its head, with, as you believed, your baby in its mouth? Is that right? . . . With, as I believed, a shoe in its mouth.

When did you decide it was the baby? . . . Well, I realized just a split second after that, that she'd cried and been disturbed, and started to run, and as I neared the tent, I could see it was empty. That's when I realized it was the baby.

The dog was then, what, going past the front of the tent? . . . I couldn't tell you where the dog was, when I thought that.

When you were at the rail, the dog was within your vision, was it not? . . . I think - no; it'd gone before that.

. . . You watched it leave? . . . I watched it leave just a few feet, that's all; just in a split second.

It turned and went south, did it? . . . It came out the tent, going south.

You watched it? . . . Like I said, just for a split second. I wasn't concentrating on what it was doing.

Is it the position that you did not see the baby in its mouth? . . . That's correct.

Did you see anything in its mouth? . . . No.

Why? . . . Its nose was below the light level from the barbecue. It was obscured by the scrub and the railing, from where I was at that time.

Do you say that it had vanished by the time you got to the rail? . . . That's right.

. . .

You say, do you, seriously, that you did not see the baby in the dog's mouth? . . . That's right.

At any stage? . . . That's right.

As it went past the tent, did it appear to be carrying anything? . . . I couldn't see what it was carrying, I could only just see the top of its head." (at p592)

26. Juries are likely to put great store by the way in which a witness deals with propositions put in cross-examination. If the jury formed an adverse view about Mrs. Chamberlain's truthfulness, they were entitled to find that she did not see a dingo at the tent and had no reason to believe that Azaria had been taken by a dingo. If the jury, satisfied that Azaria had been murdered and that Mrs. Chamberlain was the last adult person to see her alive, came to the conclusion that Mrs. Chamberlain did not see a dingo at the tent and had no reason to believe that Azaria had been taken by a dingo, they had substantial grounds on which to find that Mrs. Chamberlain had killed Azaria. What other inference could reasonably be drawn in the light of those facts? If there had been a reasonable possibility that Azaria had been murdered by someone else, it would have been necessary for the jury to be satisfied that that possibility had been excluded, but there was no other reasonable possibility upon the facts proved and no other possibility was even countenanced by the

defence. (at p592)

27. However, the prosecution sought to prove the case entirely by circumstantial evidence. Such a case is destroyed by the existence of any fact which is inconsistent with the inference of guilt that the prosecution asks the jury to draw from the circumstantial evidence. And so the defence pointed to evidence which, it was submitted, was inconsistent with Mrs. Chamberlain's guilt. (at p592)

28. A feature of the case which weighs in favour of the defence is the testimony of the camping families as to the apparent distress of the parents when Azaria disappeared, but it was for the jury to say what weight should be attributed to that feature in the light of all the evidence laid before them. They may have attributed some significance to the statement made by Mr. Chamberlain (without dissent from Mrs. Chamberlain) about twenty minutes after the hue and cry was raised when Mr. Roff asked him and Mrs. Chamberlain what had happened:

> "Our baby girl has been taken by a dingo and we are fully reconciled to the fact we will never see our baby alive again. . . . The dingo would've killed the child immediately, would it not?"

The jury may have thought that the conduct of Mr. and Mrs. Chamberlain on the Monday when they gave interviews to the press and Mr. Chamberlain photographed the tent and sent off the film to an Adelaide newspaper was inconsistent with the manifestations of shock and grief of the night before. If the jury were satisfied that the dingo hypothesis was untrue, they were entitled to find that the raising of the hue and cry was a diversionary tactic which immediately misled those who were camping nearby and which disposed them and others who were summoned to the scene to accept as genuine the manifestations of distress by Mr. and Mrs. Chamberlain during that evening. (at p593)

29. Then the defence pointed to the evidence that the baby had cried just before Mr. Chamberlain asked, "Is that bubby crying?" If Azaria was alive at that time, the jury could not have found that Mrs. Chamberlain had murdered her. The evidence of the cry came from Mr. Chamberlain and Mrs. Lowe. Mrs. Chamberlain and Mr. Lowe heard no cry. Mr. Chamberlain had told Inspector Gilroy on 18 August that he had heard "a short, sharp cry"; he told Detective Sergeant Charlwood on 1 October: "I thought I heard a faint cry from the tent." At the trial, however, he described the cry as "an urgent cry, not loud. It cut off. It almost seemed as if the baby was being squeezed." This description had been given at the first inquest. It was the subject of considerable cross-examination. The jury may not have believed him; his credibility was for them to determine. Mrs. Lowe said she heard "quite a serious cry", but the jury may have regarded her as an unreliable witness. She also deposed to finding "a dark red wet pool of blood" in the tent at about 8.30 p.m. which convinced her that the baby was dead, a discovery that was not made by others. She wrongly asserted that those present at the barbecue, including her husband and baby, heard the cry. Again, Mrs. Lowe's credibility was for the jury to determine. It was open to the jury to be satisfied beyond reasonable doubt that Mr. Chamberlain and Mrs. Lowe did not hear Azaria cry immediately before the hue and cry was raised. Their verdict testifies to their satisfaction that that was the fact. (at p593)

30. It was submitted also that there had been no opportunity for Mrs. Chamberlain to murder Azaria before she raised the hue and cry. This submission is based chiefly on the evidence of Mr. and Mrs. Lowe. Mr. Lowe said that Mrs. Chamberlain had brought the baby to the barbecue area and that he saw the baby wrapped up in a brownish coloured "fairly thick rug" which Mrs. Chamberlain said was a double thickness mulberry and pink rug. Mrs. Lowe said that the baby was "definitely alive" when Mrs. Chamberlain was nursing it

at the barbecue and that it was kicking and she saw the expression on its face. That evidence was not challenged by the prosecution, and it must be taken as fact that Azaria was alive when Mrs. Chamberlain took her and Aiden from the barbecue area to the tent. The Lowes' estimates of the time which elapsed between taking the baby to the tent and returning from the tent varied: Mr. Lowe said eight to ten minutes, Mrs. Lowe said five to ten minutes, though neither of them had a particular reason to note the time. However, that was time enough to kill Azaria provided there was a place available. Death can follow quickly from cutting the major blood vessels in the neck. The tent was an unlikely place. Reagan was asleep there and Aiden had got into his sleeping bag. There was no large deposit of blood found in the tent. But the car was next to the tent, and Mrs. Chamberlain said she went to the car to get some food. The jury were entitled to find that there was time and opportunity for Mrs. Chamberlain to inflict the mortal injury upon Azaria in the car. (at p594)

31. If Azaria was murdered at this time, what was done with her body? When the jumpsuit was found it was discoloured by soil, mostly on the outside, and there was some dry sandy soil in the feet. This indicated to some of the scientific witnesses that the jumpsuit, possibly still on Azaria's body, had been temporarily buried. The deposits of soil did not come from the vicinity where the clothes were found but there were places on the sand dune to the east of the camping area from which the soil could have come. Mr. and Mrs. Chamberlain had said in their statements to the police that they had been out on the dune searching by themselves on several occasions during the night of 17 August before they packed up their tent and went to a nearby motel with Aiden and Reagan to sleep for the rest of the night. Although other camping families or the nurse, Sister Elston, were at the camping area and in the company of one or both of the Chamberlains for a large part of the evening, there was opportunity for the Chamberlains to bury Azaria and her clothing. If Azaria died in the car, it is likely that her body was left there for the time being. Mrs. West, one of the campers, said that Mr. Chamberlain had wanted to get into the car shortly after Azaria's disappearance but he could not find the keys. Mrs. Chamberlain says that the car was unlocked. Mrs. West may have been mistaken. Mr. Chamberlain says he wanted the keys to operate the ignition so that a spotlight which plugged into the car's cigarette lighter could be turned on. The keys were found under a pillow in the tent when the Chamberlains were packing up to go to the motel. Whatever the explanation may be, there is no evidence that anybody got into the car until about 12.30 a.m., when some of the Chamberlains' possessions were loaded into the car and Mr. Chamberlain and the nurse, Sister Elston, drove to the motel. Mrs. Chamberlain, Aiden and Reagan went to the motel in a police vehicle. The Chamberlains would have had to watch for an opportunity both to take Azaria's body out of the car and to clean up any blood that may have been obvious after the killing, and that was a matter for the jury's consideration. But there was nothing which prevented the jury from finding that any obvious signs of the killing had been cleaned up before Sister Elston got into the car. During the short journey to the motel, Sister Elston's attention was attracted by a large camera bag on the floor of the car under Mr. Chamberlain's legs. It was bulging and seemed to be heavy. This evidence raised another hypothesis, namely, that Azaria's body had not then been buried and that the camera bag contained Azaria's body. It was not necessary for the prosecution to prove either of these hypotheses. What is material is that neither of them is inconsistent with murder. (at p595)

32. The only other factor of importance which counted against an inference of guilt was the absence of motive. Mrs. Chamberlain had been an apparently loving mother without any motive for committing the dreadful crime of killing her own baby. Nevertheless, if Azaria had been murdered, the motive of the murderer must have been bizarre. If Azaria had been murdered, it was unlikely that the murderer's motive - whoever the murderer was - would have been easily

discoverable; nor is it likely that the motive for her murder was a familiar motive in cases of child murder. The absence of any outward abnormality in the mother's relationship with her baby was a factor to be taken into account but certainly no impediment to the jury's verdict against her once they were satisfied that Azaria had been murdered. The jury were neither bound to find, nor to entertain a reasonable doubt about, the existence of any fact which was inconsistent with the inference of the guilt of Mrs. Chamberlain otherwise open on the evidence to which I have referred. (at p595)

33. I have not referred to the scientific evidence led by the prosecution to prove that Azaria's blood was in the car. That evidence was seriously disputed by experts called by the defence, and reference must be made presently to that dispute. For the moment, I have put that disputed evidence aside in order to examine the sufficiency of the other evidence. The argument for the applicants elevated the dispute about the blood in the car into a position of false importance as though uncertainty about identification of the blood in the car necessarily carried with it an uncertainty as to the applicants' guilt. The argument mistakes the force of the other evidence and the critical importance of the impressions which the testimonial appearances of Mr. and Mrs. Chamberlain respectively must have made upon the jury. An appellate court cannot hope to divine what those impressions were or the effect which they had in satisfying the jury that the applicants were guilty. The jury were severely cautioned by the learned trial judge about the scientific evidence to establish the identity of the blood in the car. The jury may well have rejected the scientific evidence led to prove that the blood found in the car was Azaria's blood and yet returned verdicts against Mr. and Mrs. Chamberlain on the other evidence in the case and on their impression of the applicants in the witness-box. In truth, doubt about the scientific identification of the blood in the car was consistent with satisfaction beyond reasonable doubt of the applicants' guilt. On the other hand, if the jury were satisfied beyond reasonable doubt by the scientific evidence that the blood in the car was Azaria's blood, the guilt of the applicants was virtually demonstrated. (at p596)

34. Before turning to that evidence, it is desirable to consider the evidence against Mr. Chamberlain. He was charged as an accessory under the Criminal Law and Procedure Act (N.T.), s. 9 of which provides that it is an offence to assist another person who is, to his knowledge, guilty of an offence in order to enable that person to escape punishment. Before the jury could convict Mr. Chamberlain, they had to find that Mrs. Chamberlain had murdered Azaria, that Mr. Chamberlain knew that she had murdered Azaria and that he had assisted Mrs. Chamberlain in order to enable her to escape punishment for the murder. It was not argued that the evidence which was admissible against Mr. and Mrs. Chamberlain respectively would warrant a finding of Azaria's murder against one but not against the other. The additional question of substance in his case was whether Mr. Chamberlain knew of the alleged murder. If he did, what he did after the murder was clearly assistance falling within s. 9 of the Criminal Law and Procedure Act. (at p596)

35. The prosecution did not have to prove that Mr. Chamberlain was privy to his wife's plan to kill Azaria, but neither did the prosecution allege that he was ignorant of it. His statement to Mr. Roff that they were reconciled to the fact that they would never see the baby alive again was made twenty minutes after the hue and cry was raised. The next morning, at about 8 o'clock, before he had had any report of the searching that had taken place prior to that time on the Monday morning, he told his mother in the course of a telephone call "we don't ever expect to find the body". That evening, when Mrs. Chamberlain told Inspector Gilroy that the dog she saw at the tent was not the same dog as a dog that had been near the campfire earlier, Mr. Chamberlain said: "I thought it was the same dog, but it may not have been the same dog, now that I think about it" and he added: "not that I saw the dog." He said in evidence

that he did not know why he made that "silly statement". The jury may have regarded those statements in their contexts as indicating knowledge of the baby's fate and an attempt to aid Mrs. Chamberlain to conceal it. In any event, if the baby had been murdered in the car, her body and her clothes had to be disposed of. It is impossible to suppose that this was done without Mr. Chamberlain's knowledge and assistance. The Chamberlains left for Alice Springs on Tuesday, 19 August, and these tasks must have been attended to by then. (at p597)

36. I turn then to the evidence relating to blood in the car. The police did not take possession of the car until September 1981. Samples of deposits were then taken from various parts of the car and items found in it and subjected to tests in order to determine whether those deposits were in fact blood and whether they contained foetal haemoglobin. Foetal haemoglobin persists as a significant but diminishing component in the blood of new born children for some time after birth. Analysis of Azaria's blood on the clothes she was wearing when she disappeared showed that her blood then contained one molecule of foetal haemoglobin for every three molecules of adult haemoglobin. Immunological tests were applied to the samples, using an anti-serum which was intended to react specifically with the antigens associated with the particular molecular chains (called gamma chains) that distinguish foetal haemoglobin. Twenty of these samples gave positive reaction to the anti-serum that was used. The scientific evidence adduced by the prosecution to establish and support the validity of these tests was impressive; the scientific evidence adduced by the defence to challenge their validity was equally impressive. The area of scientific dispute was lucidly explained by Jenkinson J. in the Federal Court, and I gratefully accept that explanation. In substance, the question in controversy between the scientists was whether the anti-serum that was used in the tests was, in the concentrations used, specific only to antigens associated with gamma chains. Although laboratory tests had verified the monospecificity of the anti-serum before it was used, controls to check its monospecificity were employed during the tests, and subsequent extensive testing against adult haemoglobin gave uniformly negative results, two scientists called for the defence testified to the possibility of a mistake. They testified that the concentration of adult haemoglobin antigens in the samples tested may have reacted with unwanted antibodies in the anti-serum (whose existence had not been excluded by the laboratory testing of the anti-serum) to give a reaction falsely interpreted as a reaction with foetal haemoglobin antigens. (at p597)

37. However, another test was done upon two samples which separated out bands of adult haemoglobin and foetal haemoglobin and which did not require the use of anti-serum. One of the defence experts rejected the validity of this test in the absence of a control which was known to contain foetal and adult haemoglobin. The criticisms of these tests by scientists of undoubted authority, though opposed to the opinion of other scientists of undoubted authority, convinced Jenkinson J. that "the jury could not reasonably have been satisfied beyond reasonable doubt, before it reached its verdict, that any of the blood in the car was foetal blood". (at p598)

38. Acknowledging the clear and careful analysis which his Honour made of the evidence, I am unable to share his conclusion. There were opposed scientific opinions, some accepting the sufficiency of the tests to prove the existence of foetal blood, some rejecting their sufficiency for the purpose. The jury, having the duty to decide whether the tests were sufficient and having credible evidence either way from acknowledged experts, were not precluded from acting upon the opinion of the prosecution witnesses because the defence witnesses gave credible evidence to contradict it. The question whether one body of evidence should be accepted over another is not a question for an appellate court; conflicts of evidence are to be resolved by the jury as the constitutional judge of fact: see per Latham C.J. in Hocking v. Bell (1945) 71

CLR 430, at p 440 . The evidence of scientific witnesses does not provide an exception to this rule. As Dixon J. said in that case (1945) 71 CLR, at p 496 :

> "Scientific evidence, even when composed in part of text-books, is no less matter of fact within the province of the jury than is other evidence, and it is the jury's function to estimate the reliance to be placed on scientific witnesses, however eminent."

If one body of expert evidence is said not to be credible for reasons advanced by the opposing experts, and the reasons are themselves the subject of testimonial conflict between credible witnesses, it must be left to the jury to say whether those reasons are valid to show that the first body of expert evidence should not be acted on. An appellate court enjoys no special knowledge equipping it to assess conflicts of scientific opinion better than a jury. It may be that the jury is not the ideal forum for debating and resolving such issues, but it is the constitutional forum appointed to determine the facts. The sufficiency of reasons advanced for impugning a scientific conclusion is a question of fact. The reasons advanced by the defence experts for rejecting the positive foetal haemoglobin results obtained from the samples taken from the car were controverted by the prosecution experts. The jury were entitled to accept the evidence of the prosecution experts on this issue and to find that the samples from the car which gave positive results contained in fact foetal haemoglobin. Having regard to the history of the car, the blood containing foetal haemoglobin could have come only from Azaria. (at p599)

39. However, even if the jury were not entitled to find beyond reasonable doubt that the areas of blood in the front section of the car contained foetal haemoglobin, they were entitled to have regard to those areas of blood as showing first that there was blood in the car which could have been Azaria's blood, and secondly, that that blood was unlikely to have been deposited where it was found by any other person who had bled in the car. (at p599)

40. The prosecution case rested on circumstantial evidence. Circumstantial evidence can, and often does, clearly prove the commission of a criminal offence, but two conditions must be met. First, the primary facts from which the inference of guilt is to be drawn must be proved beyond reasonable doubt. No greater cogency can be attributed to an inference based upon particular facts than the cogency that can be attributed to each of those facts. Secondly, the inference of guilt must be the only inference which is reasonably open on all the primary facts which the jury finds. The drawing of the inference is not a matter of evidence: it is solely a function of the jury's critical judgment of men and affairs, their experience and their reason. An inference of guilt can safely be drawn if it is based upon primary facts which are found beyond reasonable doubt and if it is the only inference which is reasonably open upon the whole body of primary facts. This was explained by Dixon J. in a well-known passage in his judgment in Martin v. Osborne (1936) 55 CLR 367, at p 375 ; see also Luxton v. Vines (1952) 85 CLR 352, at p 358 . An inference of guilt may properly be drawn although any particular primary fact, or any concatenation of primary facts falling short of the whole, would be insufficient to exclude other inferences. It follows that the insufficiency of a piece of evidence to support an inference of guilt does not by itself warrant the setting aside of a verdict of guilty if that piece of evidence, however important, is but a part of the whole body of evidence available to support the inference. (at p599)

41. In the present case, the jury were entitled to find, inter alia, that Mrs. Chamberlain raised a hue and cry that a dingo had taken Azaria when she had not seen a dingo taking Azaria and did not believe that a dingo had taken Azaria, that a dingo did not take Azaria, that Azaria's throat was cut, that

Azaria's clothes were cut, rubbed against vegetation and left by a human close to dingo lairs and dingo pads, that Mrs. Chamberlain was the last adult to have seen Azaria alive, that there was blood in the car that was consistent with its being Azaria's blood, and that Mrs. Chamberlain had an opportunity to murder Azaria in the car. Upon those facts, it was open to the jury, in my opinion, to infer that Mrs. Chamberlain murdered Azaria. But further, in my opinion, the jury were also entitled to find that the samples taken from the car which gave a positive test for foetal haemoglobin were in fact samples of Azaria's blood. A fortiori, they were entitled to infer that Mrs. Chamberlain murdered Azaria. It is impossible to ascertain what primary facts the jury (or any particular member of the jury) found upon which they (or the particular member) based the guilty inference expressed in the verdicts. An appellate court cannot speculate upon what facts were found; it cannot interfere with a verdict if an inference could safely have been drawn from primary facts which the jury were entitled to find beyond reasonable doubt. The closer the primary facts approach to the facts in issue, the smaller the room for inference. An appellate court will give more anxious consideration to a verdict of guilty where the basis of primary fact is thin and the room for inference is large, but the test for determining whether the inference was lawfully drawn is constant: upon the facts which the jury were entitled to find beyond a reasonable doubt, could a reasonable jury, employing their critical judgment of men and affairs, have been satisfied that the inference of guilt was the only inference to be drawn. Applying this test to the facts I have mentioned - and they do not purport to be an exhaustive statement of the evidence - in my opinion a reasonable jury, whether or not they were entitled to find that the samples taken from the car were samples of Azaria's blood, could have been satisfied that Mrs. Chamberlain had murdered Azaria. (at p600)

42. This test may not be sufficient to dispose of the appeal if the applicants' argument is accepted. That argument has two steps: the first is that the common form statute requires a court of criminal appeal to set aside a verdict of guilty though there is evidence upon which a reasonable jury could find the verdict if that court itself has a reasonable doubt about the appellant's guilt; the second is that the Federal Court ought not to adopt a more restricted approach in exercising its criminal appellate jurisdiction under the Federal Court of Australia Act. The jurisdiction and function of a court of criminal appeal under the common form statute are governed by the direction to set aside the verdict where (1) the verdict is unreasonable or not supportable on the evidence; (2) an error of law has affected the judgment of the court; or (3) there was a miscarriage of justice, unless the court is satisfied that there has been no substantial miscarriage of justice. Under the common form statute an appellant is not required to show an error in strict law under either of the first two heads for, as Isaacs J. said in Hargan v. The King (1919) 27 CLR 13, at p 23 :

> "If he can show a miscarriage of justice, that is sufficient. That is the greatest innovation made by the Act, and to lose sight of that is to miss the point of the legislative advance."

The third head is cumulative upon the other two, authorizing the setting side of a verdict, in the cases in which it alone applies, which is not unreasonable, which is supportable on the evidence, and which is not affected by any error of law. (at p601)

43. It is not easy to conceive of a miscarriage of justice arising from the state of the evidence where the evidence, viewed reasonably is sufficient to support the verdict. After all, the jury is the constitutional tribunal for deciding whether an accused person is guilty or not guilty, and if there is evidence sufficient to support a verdict of guilty, it is for the jury to say whether that verdict should be returned. Knox C.J., Gavan Duffy and Starke JJ. made this clear in Ross v. The King (1922) 30 CLR 246, at pp 255-256 :

"Another ground urged by counsel for the prisoner was that the verdict of the jury was against the weight of evidence. As we have before indicated, there was, in our opinion, abundant evidence, if the jury believed it, to sustain their verdict. But we desire to add that if there be evidence on which reasonable men could find a verdict of guilty, the determination of the guilt or innocence of the prisoner is a matter for the jury and for them alone, and with their decision based on such evidence no Court or Judge has any right or power to interfere. It is of the highest importance that the grave responsibility which rests on jurors in this respect should be thoroughly understood and always maintained." (at p601)

44. Nevertheless, the common form statute has been understood to authorize in some circumstances a Court of Criminal Appeal to set aside a verdict supportable on the evidence. The applicants submitted in reliance upon what Barwick C.J. said in Ratten v. The Queen (1974) 131 CLR 510, at p 515 that a Court of Criminal Appeal is bound to decide for itself whether, upon the whole of the evidence, there exists such a doubt as to the appellant's guilt that the verdict of guilty should not be allowed to stand. That is a question vastly different from the question whether the evidence, viewed reasonably, is sufficient to support the verdict. In Ratten, Barwick C.J. said:

"The use of the expression 'miscarriage of justice' in this context has given to the court of criminal appeal a function of independent judgment on the facts of the case which a court of appeal hearing an appeal from the verdict of a jury ordinarily does not have. 'That is the greatest innovation made by the Act, and to lose sight of that is to miss the point of the legislative advance.' (Hargan v. The King (1919) 27 CLR 13, at p 23 , per Isaacs J.; also R. v. Baskerville (1916) 2 KB 658, at p 664 , per Lord Reading C.J.)"

His Honour asserted "the existence of the function of independent assessment of the evidence by the court of criminal appeal" and said (1974) 131 CLR, at p 516 :

"Miscarriage is not defined in the legislation but its significance is fairly worked out in the decided cases. There is a miscarriage if on the material before the court of criminal appeal, which where no new evidence is produced will consist of the evidence given at the trial, the appellant is shown to be innocent, or if the court is of the opinion that there exists such a doubt as to his guilt that the verdict of guilty should not be allowed to stand. It is the reasonable doubt in the mind of the court which is the operative factor. It is of no practical consequence whether this is expressed as a doubt entertained by the court itself, or as a doubt which the court decides that any reasonable jury ought to entertain. If the court has a doubt, a reasonable jury should be of a like mind. But I see no need for any circumlocution; as I have said it is the doubt in the court's mind upon its review and assessment of the evidence which is the operative consideration."

In Ratten, the Court was not asked to set aside a verdict because a reasonable doubt ought to have been entertained on the evidence given at the trial. An appeal and further appeal against conviction had already been dismissed. Subsequently, a petition for a pardon had led to a reference by the Attorney-General of the whole case to the Supreme Court of Victoria which, pursuant to s. 584 of the Crimes Act 1958 (Vict.), was required to hear the whole case as upon an appeal by the petitioner. Evidence that was not given at the trial was relied upon, and the opinion of the Supreme Court was required as to whether there had been a miscarriage of justice in the conviction in the

light of all the evidence which was then available. The question for decision was the correct course to be adopted by a Court of Criminal Appeal in considering an appeal against conviction based upon the production of evidence not given at the trial. Barwick C.J. (1974) 131 CLR, at p 520 said that the court should quash the verdict without ordering a new trial if the court upon its own view of the new material (whether or not it is fresh evidence) is convinced that the verdict could not be allowed to stand; but if the court is not so convinced, a new trial should be ordered where only fresh evidence, properly capable of acceptance and likely to be accepted by a jury is, in the opinion of the court, so cogent that, being believed, it is likely to produce a different verdict. (at p603)

45. The issue which fell for determination in Ratten defines the scope of the principle for which the judgment of Barwick C.J. is authority. His Honour was emphasizing the independent assessment by the appellate court of evidence including evidence not given at the trial in order to determine whether any "miscarriage of justice" has occurred - one kind of miscarriage being a conviction where the appellant is shown to be innocent or where a reasonable jury should entertain a reasonable doubt as to his guilt. In such cases, it would be wrong to allow the conviction to stand and it would be pointless to order a new trial, for a reasonable jury could not convict upon the whole of the evidence that has become available. The function of evaluating evidence not given at the trial and of deciding whether a verdict should be set aside and whether a verdict of acquittal should be entered or a new trial ordered is a function which falls in all its aspects upon a Court of Criminal Appeal. Ratten establishes that when the court itself must evaluate evidence not given at the trial, particularly in deciding whether a verdict of acquittal should be entered, it is of no practical consequence whether the doubt about the appellant's guilt is expressed as a doubt entertained by the court itself, or a doubt that any reasonable jury ought to entertain. In that context, the reasons of Barwick C.J. were concurred in by a majority of the Court (McTiernan, Stephen and Jacobs JJ.), Stephen J. expressly limiting his concurrence to that context. (at p603)

46. If Ratten were to be taken as requiring a Court of Criminal Appeal to set aside a conviction whenever the evidence given at the trial leaves that court with a reasonable doubt about the appellant's guilt, the function of returning the effective verdict would be transferred from the jury to the court - a course which would at once erode public confidence in the administration of criminal justice and impose upon the court the impossible burden of retrying every appeal case on the papers. The passage cited from the judgment of Barwick C.J. in Ratten seems to attribute to a Court of Criminal Appeal the function of deciding whether it entertains, upon the evidence given at the trial, not merely a reasonable doubt but such a reasonable doubt "that the verdict of guilty should not be allowed to stand". This passage has to be understood in the light of what his Honour earlier said, namely, that the notion of "miscarriage of justice" in the common form statute had been fairly worked out in the decided cases. (at p603)

47. The decided cases do not require or permit a Court of Criminal Appeal to find a miscarriage of justice in any case in which the court itself happens to entertain a reasonable doubt about the appellant's guilt. If the "miscarriage of justice" ground (which I shall hereafter refer to as the "other miscarriage ground") were intended to be so broadly understood, it would have been unnecessary to specify, as the primary ground for setting aside a verdict, the ground that the verdict is unreasonable or cannot be supported on the evidence. The other miscarriage ground, however, confers on the court a power, to be exercised with discrimination and caution, to set aside some verdicts which the court could not otherwise set aside as unreasonable or not supportable having regard to the evidence (Raspor v. The Queen (1958) 99 CLR 346). This is, in the words of Barwick C.J., "a function of independent

judgment on the facts of the case which a court of appeal hearing an appeal from the verdict of a jury ordinarily does not have" (1974) 131 CLR, at p 515 . (at p604)

48. The difficulty lies in identifying criteria for exercising the extraordinary power while preserving the general principle that a Court of Criminal Appeal does not usurp the functions of the jury by setting aside the jury's verdict in any case where the court, considering the evidence presented before the jury at the trial and that evidence alone, entertains a reasonable doubt about the appellant's guilt. There must be some special character in the evidence upon which the jury has acted in finding the facts against the appellant which permits the court to intervene though the verdict is not unreasonable or it can be supported having regard to that evidence. Long curial experience has satisfied Courts of Criminal Appeal that some categories of evidence which a reasonable jury might act upon in returning a guilty verdict are frequently unsafe, and should be acted on (if at all) only after the jury has been warned of the danger of acting on them. Those categories of evidence, as the court's experience shows, have a special character: apparently safe to act upon, but frequently unsafe in fact. Acting under the extraordinary power in the common form statute, the court has given effect to its superior experience of these categories of evidence and has set aside verdicts which would otherwise have been allowed to stand. Thus, in Hargan v. The King (1919) 27 CLR 13 where a prosecutrix alleged that a sexual offence had been committed on her, the Court quashed a conviction because of an omission to warn the jury that they should scrutinize such evidence with very special care. Evidence of identification is also regarded as falling into a special category, and the other miscarriage ground is established in the circumstances described in Davies and Cody v. The King (1937) 57 CLR 170, at p 182 :

> "We think the view accepted in England and, as far as we know, elsewhere in the Dominions where the provisions of the Criminal Appeal Act have been adopted, should be applied in Victoria. That view, as we understand it, is that, if a witness whose previous knowledge of the accused man has not made him familiar with his appearance has been shown the accused alone as a suspect and has on that occasion first identified him, the liability to mistake is so increased as to make it unsafe to convict the accused unless his identity is further proved by other evidence direct or circumstantial." (at p605)

49. The cases are necessarily few where a verdict will be set aside because the direct evidence of a fact on which a jury has acted in returning a guilty verdict belongs to a special category. The court, taking account of any instruction which the trial judge has given the jury, must be satisfied that its experience in assessing the safety of such evidence is superior to the experience of the jury. Only in the light of the court's superior experience can it be said that there is a miscarriage of justice in a verdict that is otherwise reasonable and supportable having regard to the evidence. (at p605)

50. Where a guilty verdict depends upon the drawing of an inference from the facts established by direct evidence, a Court of Criminal Appeal may sometimes find a miscarriage of justice in the drawing of the guilty inference though a reasonable jury, employing their critical judgment of men and affairs, could have been satisfied that the inference of guilt was the only inference to be drawn on the facts found by them. The existence of the power to find such a miscarriage of justice was asserted by Dixon C.J. with the concurrence of at least Kitto and Taylor JJ. in Plomp v. The Queen (1963) 110 CLR 234, at p 244 :

> "If the Court of Criminal Appeal had thought that it was dangerous to

> convict Plomp in all the circumstances it would have been within the province of that Court to interfere. At the time when Peacock's Case (1911) 13 CLR 619 was decided, the Criminal Appeal Act had not been passed in Victoria. It was decided on a case stated by the judge at the trial. Some of the expressions used by Barton J. and O'Connor J. tending to the view that the Court might not interfere if there was some sufficient evidence to support a verdict of guilty, however unsafe or unsatisfying it might be, probably are not correct under the provisions of the Criminal Appeal Act, as incorporated in Queensland Criminal Code, see particularly s. 668E; and see Raspor v. The Queen (1958) 99 CLR 346, esp at pp 350, 351, 352 ."

The occasions when a verdict is set aside because it is unsafe to rely upon an inference of guilt must be rare indeed. If a jury could reasonably draw that inference from the primary facts as they are entitled to find them and, exercising their critical judgment of men and affairs, could conclude that no other hypothesis was reasonably open on those facts (that is, if the verdict could not be said to be unreasonable or not supportable having regard to the evidence) it would be an exceptional case where the court would hold that it was unsafe to draw and act upon the inference. Yet circumstances can occur which evoke the exercise of the power. In Hayes v. The Queen (1973) 47 ALJR 603, at pp 604-605 , Barwick C.J. with the concurrence of the other members of the Court said:

> "In considering the matter, I have not taken the view that, so long as there is some evidence on which reasonable jurymen might be entitled to convict, there is no responsibility in a Court of Criminal Appeal in any case to consider whether none the less it would be dangerous in all the circumstances to allow the verdict of guilty to stand. I agree with what was said in the joint judgment of Dixon C.J., Fullagar J. and Taylor J. in Raspor v. The Queen (1958) 99 CLR 346, at pp 350-352 , and what was said by Sir Owen Dixon in Plomp v. The Queen (1963) 110 CLR 234, at p 244 . These expressions of opinion were made in relation to courts of criminal appeal constituted under statutory provisions containing the formula 'if it thinks that the verdict should be set aside on the ground that it is unreasonable or cannot be supported having regard to the evidence'. In exercising its powers under such a formula, the court of criminal appeal must, of course, act on that view of the facts which in its opinion the jury were entitled to take, having seen and heard the witnesses. . . .
>
> Occasions when a verdict can be set aside upon such considerations as I have mentioned will no doubt be relatively rare. But, in my opinion, the court of criminal appeal under the formula in the Criminal Appeals Acts or provisions obtaining in Australia has the responsibility to which I have referred, taking the facts to be as the jury were entitled to accept them, that is to say, of satisfying itself on the facts as so found that in the administration of justice in criminal matters it would not be dangerous to allow the verdict to stand." (at p606)

51. The power to set aside a guilty verdict when a Court of Criminal Appeal forms the opinion that it is unsafe to draw the inference on which the verdict depends is an important check upon too ready a rejection of competing innocent inferences. Whether the jury has too readily rejected innocent inferences is not demonstrable in a case where a jury, impartially applying its critical judgment of men and affairs, could have drawn the guilty inference. The verdict is opaque: the processes which actually lead the jury to return the verdict cannot be ascertained, and the possibility of improper prejudice in the drawing of a guilty inference cannot usually be detected. However, when something appears either from the evidence itself or from the conduct of the trial which leads the court to regard the drawing of the inference upon which

the verdict depends as unsafe the verdict may be set aside as a miscarriage of justice, though the court is unable to say that a reasonable jury could not have drawn the guilty inference beyond reasonable doubt. Curial sensitivity to the limit which is placed on the drawing of guilty inferences by the requirement of proof beyond reasonable doubt is a real, albeit inexpressible, touchstone for deciding whether the instant inference had been safely drawn upon the primary facts as they are taken to have been accepted by the jury. (at p607)

52. In every case where a verdict is set aside because of some defect or weakness in the evidence to support the verdict given at the trial, whether upon the ground that the verdict is unreasonable or not supportable having regard to the evidence or upon the ground that there was some other miscarriage of justice, the Court of Criminal Appeal must come to the conclusion that it was not open to the jury to be satisfied of the appellant's guilt beyond a reasonable doubt. Apart from some observations in Ratten, the application of which should be confined, in my respectful opinion, to cases where there is new evidence to evaluate, it has not been decided in this Court that a Court of Criminal Appeal should set aside a verdict merely because the members of that court entertain a doubt about the appellant's guilt. The question is always whether it was open to the jury to find the guilty verdict. (at p607)

53. In Whitehorn v. The Queen (1983) 152 CLR, at p 660 , Gibbs C.J. and I stated the question for the appellate court in this way:

> "In our opinion a court of criminal appeal, acting under a statute in the form of s. 353 of the Criminal Law Consolidation Act 1935 (S.A.), as amended, which, as our brother Dawson has pointed out, is a common form in Australia, should allow an appeal if having regard to all the evidence it concludes that it would be unsafe, unjust or dangerous to allow a verdict of guilty to stand. If the court reaches such a conclusion in a particular case, that means that it thinks that it was not open to the jury to be satisfied beyond reasonable doubt of the guilt of the accused in that case. We agree with what our brother Dawson has said on this aspect of the matter."

Dawson J. said (1983) 152 CLR, at p 686 :

> "To describe a verdict which ought to be set aside because it is unreasonable or cannot be supported having regard to the evidence as being an unsafe, unjust or dangerous verdict is, no doubt, to emphasize that the power of a court of criminal appeal to substitute another view of what the evidence will support for that of the jury is not be exercised lightly. As was said by the Court in Raspor v. The Queen (1958) 99 CLR, at p 352 , 'Verdicts of course ought not to be, and are not in practice, set aside except upon very substantial grounds'. But they are descriptions which, useful as they are, tend to restate the question rather than answer it. For the question must in the end be, to use the words of Menzies J., whether the appellate court thinks that upon the whole of the evidence it was open to the jury to be satisfied beyond reasonable doubt that the accused was guilty. If the appellate court is unable to reach that conclusion, then it would be unsafe or dangerous or unjust to allow the verdict to stand." (at p608)

54. The question for the Court of Criminal Appeal is whether it was open to the jury to be satisfied of the appellant's guilt, not whether the court is satisfied. The distinction between the two propositions must be constantly borne in mind lest the function of the court under the common form statute, wide though it be, is unduly extended and that court usurps the functions of

the jury. (at p608)

55. In the present case there was no category of evidence which might be regarded as being the subject of special curial experience. Scientific evidence is not such a category. Moreover, the jury were warned against the rejection of the attacks made by experts called for the defence upon the expert evidence called for the Crown. The jury were entitled to find at least the primary facts which I have earlier mentioned. There is nothing in the evidence or in the circumstances of the trial to suggest that on those primary facts it was unsafe for the jury to draw the inference that Mrs. Chamberlain murdered Azaria. It follows that, had the Federal Court been exercising criminal appellate jurisdiction under a common form statute, the appeal would be dismissed. (at p608)

56. The Federal Court was exercising its jurisdiction under ss. 24, 27 and 28(1)(e) and (f) of the Federal Court of Australia Act. For reasons which McGregor and Lockhart JJ. and I expressed in Duff v. The Queen (1979) 39 FLR 315; 28 ALR 663 , the functions of the Full Court of the Federal Court in criminal appeals where the findings made on direct evidence are impugned are more limited than the functions of an appellate court exercising the powers conferred by common form statute. The fact in contest in Duff which gave rise to the discussion of that Court's functions was the identity of the offender - a matter which attracted the operation of the other miscarriage ground in the common form statute in Davies and Cody (1937) 57 CLR 170 . The extended notion of miscarriage which has been judicially attributed to the other miscarriage ground in the common form statute finds no corresponding foundation in the text of the Federal Court of Australia Act. The other miscarriage ground, expressed cumulatively with the grounds earlier stated in the common form statute, alone confers on Courts of Criminal Appeal a function which permits them to give some effect to curial experience of certain categories of evidence and to the court's own view of what inference can safely be drawn against an accused. No similar provision is to be found in the Federal Court of Australia Act, and no rule of construction has been suggested which would import the provisions of the common form statute into the construction of the sections conferring appellate functions on the Federal Court. Parliament did not see fit to enact the common form statute, though the statute was familiar and had long been judicially construed. (at p609)

57. In default of statutory precept, the principles which govern the exercise of the common law power to set aside a verdict should be held to govern the exercise of the analogous statutory power. At common law the grounds upon which verdicts might be set aside were worked out in applications for new trials. Those grounds were not narrowly confined; they afforded a remedy for miscarriages of justice occurring at the trial, although the courts allowed themselves a wider discretion when the complaint related to an application for a new trial on the ground that the verdict was against the weight of evidence than when the complaint related to a wrongful rejection or reception of evidence or a misdirection of law in the trial (per Windeyer J. in Balenzuela v. De Gail (1959) 101 CLR 226, at pp 243-244). There are cases which express the new trial grounds in terms familiar in Courts of Criminal Appeal. A verdict is set aside if it is not such a verdict as reasonable men might find (per Lord Halsbury in Metropolitan Railway Co. v. Wright (1886) 11 AppCas 152, at p 156) or if it is so unsatisfactory having regard to the evidence that it ought not to stand (per Lord Blackburn in South Eastern Railway Co. v. Smitherman (1883) 47 JP 773, at p 775). Where the new trial grounds stop short of the grounds available under the common form statute is at the point where the court would allow its experience of a particular category of evidence or its view of the available inferences to override the findings made by the jury. "An appellate court", said Lord Wright in Mechanical and General Inventions Co. and Lehwess v. Austin and the Austin Motor Co. (1935) AC 346, at p 375 , "must always be on guard against the tendency to set aside a

verdict because the Court feels it would have come to a different conclusion". (at p610)

58. Although I would respectfully disagree with the view of Barwick C.J. in Ratten that a court of criminal appeal has a general function of independent judgment on the facts of a case when there is no new evidence to be evaluated, I would agree that, to the extent that the court has any function of independent judgment in such a case, that function is given by the phrase "miscarriage of justice" in its context in the common form statute. It is not a function given to the Federal Court. If the analogy of the common law principles governing the setting aside of a verdict be rejected, what limits can be imposed upon the exercise of the Court's powers under s. 28(1)(e) and (f)? I see none save the exercise of an unfettered judicial discretion, and that is an unsatisfactory foundation for the exercise of the Court's appellate powers in criminal cases. It follows that the powers conferred upon the Federal Court by s. 28(1)(e) and (f) are not as extensive as those conferred on a Court of Criminal Appeal by the common form statute. However, the difference is of no present relevance. (at p610)

59. In my opinion the verdicts against Mr. and Mrs. Chamberlain could not have been set aside by the Federal Court whether its function be assimilated to the function of a Court of Criminal Appeal under a common form statute or whether its function be as stated in Duff. This case is not to be determined by deciding whether the majority of the Full Court of the Federal Court unduly restricted its functions. Though I would answer that question in the negative, adhering to what was said in Duff, I would decide this case on the ground that the evidence was of sufficient strength comfortably to support the verdicts. It would therefore be appropriate to refuse special leave to appeal. However, if special leave be granted, I would dismiss the appeal. (at p610)

60. Some subsidiary grounds of appeal should be mentioned. The trial judge's direction as to the standard of proof was criticized. It is sufficient to say that in its context, the direction clearly brought home to the jury that they were bound to acquit an accused if they entertained a reasonable doubt about his or her guilt. Some other criticisms of the summing up, which was conspicuously fair to the applicants, related to passages of minor significance that were unlikely to have affected the verdicts. The applicants also sought to tender some further evidence challenging the reliability of the tests which showed the samples of deposits taken from the car and its contents to contain foetal haemoglobin. The evidence is not "fresh evidence" (see Ratten (1974) 131 CLR, at pp 516-518), and it does not lead me to entertain "such a doubt that the verdict of guilty cannot stand". None of the subsidiary grounds warrants the grant of special leave to appeal. (at p611)
JUDGE4
DEANE J.

Introductory. (at p611)

2. At the threshold of these applications there lie two questions of some general importance. The first is whether the grounds available on an appeal to the Federal Court of Australia against a conviction on indictment before the Supreme Court of the Northern Territory include the common statutory ground that "on any ground there was a miscarriage of justice". The second question arises only if the first be answered in the affirmative. It is whether the ground that "there was a miscarriage of justice" is made out if it appears to the appellate court that, on its own assessment of the evidence, the guilt of the accused was not established beyond reasonable doubt. An affirmative answer to that second question will mean that a majority of the Federal Court adopted an unduly restricted view of that Court's jurisdiction on the hearing of the appeals to it by the present applicants. It will not, however, necessarily

lead to a decision that the order of the Federal Court dismissing each applicant's appeal from conviction should be set aside since it may appear that the appeal to the Federal Court should, in any event, have been dismissed.
The Jurisdiction of the Federal Court. (at p611)

3. The jurisdiction of the Federal Court to hear appeals from the Supreme Court of a Territory was created and conferred in general terms by s. 24(1) of the Federal Court of Australia Act 1976 (Cth) ("the Act") without express mention of the grounds or principles upon which such appeals are to be determined. Under that subsection, the Federal Court's appellate jurisdiction is identified as being "to hear and determine - (a) appeals from judgments of the (Federal) Court constituted by a single Judge; (b) appeals from judgments of the Supreme Court of a Territory; and (c) in such cases as are provided by any other Act, appeals from judgments of a court of a State, other than a Full Court of the Supreme Court of a State, exercising federal jurisdiction". That grant of jurisdiction must be read in the context of those provisions of the Act which confer express appellate powers upon the Federal Court and, at least in the case of appeals from a Supreme Court of a Territory, in the context of the relevant appellate structure both before and after the enactment of the Act. (at p612)

4. Sections 27 and 28 detail a variety of powers which are exercisable by the Federal Court in the course of its appellate jurisdiction. Those powers include the "power to draw inferences of fact and, in its discretion, to receive further evidence" (s. 27); the power to "give such judgment, or make such order, as, in all the circumstances, it thinks fit" (s. 28(1)(b)); the power to "set aside the judgment appealed from, in whole or in part, and remit the proceeding to the court from which the appeal was brought for further hearing and determination" (s. 28(1)(c)); the power to "set aside the verdict and judgment in a trial on indictment and order a verdict of not guilty or other appropriate verdict to be entered" (s. 28(1)(e)); and the power to "grant a new trial in any case in which there has been a trial, either with or without a jury, on any ground upon which it is appropriate to grant a new trial" (s. 28(1)(f)). The content of those appellate powers is of assistance in defining the nature and scope of the jurisdiction of the Federal Court on an appeal from the Supreme Court of a Territory. In particular, the appellate power to "set aside the verdict and judgment in a trial on indictment and order a verdict of not guilty or other appropriate verdict to be entered" confirms that the general grant of jurisdiction to hear and determine appeals from judgments of the Supreme Court of a Territory was intended to confer jurisdiction to entertain an appeal from a judgment of conviction entered upon the verdict of a jury in a criminal trial. The appellate powers "to draw inferences of fact" and "to receive further evidence" make clear that the jurisdiction is not confined to an appeal in the strict sense, that is to say, an appeal on which the appellate court is limited to determining whether the court of first instance fell into error on the material before it and on which it is no part of the function of the appellate court to hear evidence for itself or to examine the evidence to reach its own conclusion. Quite apart from those particular matters, the scope and generality of the express appellate powers conferred upon the Federal Court support the conclusion that the appellate jurisdiction was intended, where it exists, to be as full and complete as the general words in which it was granted would prima facie indicate. (at p612)

5. Reference to a full and complete appellate jurisdiction is, however, meaningful only in the context of established principles relating to the nature of an appeal, to the circumstances in which an appeal ordinarily lies and to the locus to institute an appeal. The grant of appellate jurisdiction to hear and determine appeals from the Supreme Court of a Territory clearly

did not, for example, confer jurisdiction on the Federal Court to set aside a decision on its own motion or to entertain an appeal by a stranger to the litigation. More importantly for present purposes, the grant of appellate jurisdiction did not carry with it an unfettered jurisdiction to set aside a judgment on every ground, however arbitrary or capricious, which might appear persuasive to the Federal Court. The grounds and principles upon and according to which the jurisdiction may be invoked and exercised must be determined by reference to the recognized grounds upon which an appellate court may interfere with the decision of a lower court and the established legal principles according to which appellate jurisdiction may properly be exercised. Since an appeal is largely a creature of statute (see Commissioner for Railways (N.S.W.) v. Cavanough (1935) 53 CLR 220, at p 225 ; Builders Licensing Board v. Sperway Constructions (Syd.) Pty. Ltd. (1976) 135 CLR 616, at p 619), any such recognized grounds will, to no small extent, have a statutory basis. (at p613)

6. At the time when the Act was enacted, an appeal lay against a judgment of conviction on indictment before any of the Supreme Courts of the States and Territories. An appeal lay against a conviction before a State Supreme Court to a Full Court of the Supreme Court described as a "Court of Criminal Appeal". The grounds upon which such an appeal could be brought were the grounds which had been set out in s. 4(1) of the Criminal Appeal Act 1907 (U.K.). That sub-section had, by 1924, been followed in all the Australian States. It provided:

> "The Court of Criminal Appeal on any such appeal against conviction shall allow the appeal if they think that the verdict of the jury should be set aside on the ground that it is unreasonable or cannot be supported having regard to the evidence, or that the judgment of the court before whom the appellant was convicted should be set aside on the ground of a wrong decision of any question of law or that on any ground there was a miscarriage of justice, and in any other case shall dismiss the appeal:
> Provided that the Court may, notwithstanding that they are of opinion that the point raised in the appeal might be decided in favour of the appellant, dismiss the appeal if they consider that no substantial miscarriage of justice has actually occurred." (at p613)

7. An appeal from a conviction on indictment before any of the Supreme Courts of the Australian Territories lay - in some cases by leave - to the High Court. In no case did the statutory provisions creating or regulating such appeals particularize specific grounds upon which such an appeal could be brought. Appeals from the Supreme Court of the Territory of Cocos (Keeling) Islands and from the Supreme Court of Christmas Island were in a special category by reason of past associations with Singapore and the Straits Settlements and the continuation of some Singapore laws including provisions of the Criminal Procedure Code 1955 (Singapore). They may be put to one side. Otherwise, the grounds upon which an appeal could be brought from a conviction on indictment before a Supreme Court of an Australian Territory were classified rather than identified in the relevant Commonwealth Acts and Ordinance: (i) any ground of appeal that involves a question of law alone", (ii) with the leave of the Territory Supreme Court (or a judge thereof) or of the High Court, "any ground of appeal that involves a question of fact alone or a question of mixed law and fact", and (iii) with the leave of the Full Court of the High Court, "any other ground that appears to the High Court to be a sufficient ground of appeal" (see Northern Territory Supreme Court Act 1961-1976, s. 47; Australian Capital Territory Supreme Court Act 1933-1973, s. 52; Supreme Court Ordinance 1960 (Norfolk Island), s. 33). Those general descriptions did not identify specific grounds of appeal; the legislative intent was, plainly enough, to leave that identification to this Court. The breadth of the descriptions - particularly "any ground that appears to the

Full Court of the High Court to be a sufficient ground of appeal" - is, however, such as to warrant the conclusion that the available grounds of appeal were intended to be at least as ample as the statutory grounds which had, since 1924, been available in the State Courts of Criminal Appeal. In particular, and subject to one qualification, those available grounds of appeal were sufficiently wide to encompass the established ground that "there was a miscarriage of justice". The qualification arises by virtue of the proviso that existed in the State Acts that the Court of Criminal Appeal may dismiss an appeal if it considers "that no substantial miscarriage of justice has actually occurred" (emphasis added). There was no corresponding provision in any of the relevant Commonwealth legislation. While varying view have been expressed in this Court on the question (see, e.g., Stokes v. The Queen (1960) 105 CLR 279, at pp 284-285 ; Da Costa v. The Queen (1968) 118 CLR 186, at pp 197, 216-218 and Pemble v. The Queen (1971) 124 CLR 107, at p 125), the better view appears to me to be that accepted and applied in Stokes, namely, that, under the relevant Commonwealth legislation, this Court was empowered to dismiss an appeal notwithstanding that a particular ground of appeal had been made good if it appeared that "no substantial miscarriage of justice (had) actually occurred" in the sense in which those words are used in the proviso in the State legislation (see Mraz v. The Queen (1955) 93 CLR 493, at p 514 ; Duff v. The Queen (1979) 39 FLR 315, at p 328; 28 ALR 663, at p 673): "the general rule that if an error of law or a misdirection or the like occurring at the trial is of such a nature that it could not reasonably be supposed to have influenced the result a new trial need not be ordered" (per Dixon C.J., Fullagar and Kitto JJ., Stokes (1960) 105 CLR, at pp 284-285). Subject to the effect of that "general rule", an appeal lay, at the time when the Act was enacted, from the Supreme Court of every Australian State and mainland Territory and from the Supreme Court of Norfolk Island on the ground that there had been a miscarriage of justice. In that context, one would prima facie expect that a general grant of jurisdiction to the Federal Court to hear and determine appeals from judgments of the Supreme Court of a Territory was intended to include the jurisdiction to set aside a judgment of conviction on the ground that there was a miscarriage of justice subject to the overriding power to dismiss the appeal in any case where it appeared to the Federal Court that, notwithstanding that a point raised in the appeal might be decided in favour of the appellant, no "substantial" miscarriage of justice had actually occurred. (at p615)

8. Examination of the other provisions of the Act confirms that the appellate jurisdiction conferred upon the Federal Court by s. 24(1) was intended to include jurisdiction to hear and determine appeals against a judgment of conviction in the Supreme Court of a Territory upon any of the established grounds and principles upon which such an appeal could, at the time when the Act was enacted, have been brought, either as of right or by leave, to the High Court. Thus, s. 24(2) of the Act preserved appeals to the High Court from a judgment of the Supreme Court of a Territory in accordance with special leave given by the High Court. It is unlikely that it was the legislative intent either to have different grounds and principles applicable according to whether the initial appeal was brought to the Federal Court or to the High Court or impliedly to limit the grounds of appeal available on an appeal to the High Court. Section 24(4) of the Act provides that, in certain circumstances, a prior right to appeal or to seek leave or special leave to appeal to the High Court from a judgment of a Supreme Court of a Territory shall be converted into a corresponding right of appeal, or to seek leave or special leave to appeal, to the Federal Court. It is unlikely that it was the legislative intent either that the applicable grounds should be narrower on such a converted appeal than they would have been on the original appeal or that the applicable grounds or principles in the Federal Court should, without any express provision in that regard, vary according to whether the right of appeal arose before or after the commencement of the Act. (at p616)

9. In Duff, it was held by a unanimous Full Court of the Federal Court (Brennan, McGregor and Lockhart JJ.) that the available grounds on an appeal against a conviction in the Supreme Court of the Australian Capital Territory after a trial by jury did not include that "on any ground there was a miscarriage of justice" and that, that being so, "it would not avail (an) appellant to persuade (the Federal Court) to a view that it is unsafe or unsatisfying to allow a verdict of guilty to stand on the evidence . . ." (1979) 39 FLR, at p 330; 28 ALR, at p 675 . For the reasons which I have indicated, I respectfully disagree with that conclusion of the Full Court of the Federal Court. In my view, the proper inference to be drawn from the provisions of s. 24(1)(b), in the light of the other provisions of the Act and the appellate structure existing both before and after its enactment, is that the available grounds of appeal to the Federal Court against a conviction on indictment before the Supreme Courts of the Australian Capital Territory, the Northern Territory and Norfolk Island, correspond with the grounds upon which such an appeal lay to the High Court from such a conviction at the time when the Act was enacted. Those grounds include the general ground that there has been a miscarriage of justice. Once that conclusion is reached, the fact that, by reason of the limited definition of "judgment" contained in the Act, an appeal does not lie direct from a jury's verdict of guilty presents no real difficulty. If the ground that there has been a miscarriage of justice is made good in an appeal against the judgment of conviction, the Federal Court is entitled to exercise any of the appellate powers conferred by s. 28(1) of the Act including the express power to "set aside the verdict and judgment in a trial on indictment and order a verdict of not guilty or other appropriate verdict to be entered".

Was the Federal Court Entitled to Review the Evidence for Itself? (at p617)

10. Two relevant principles permeate the administration of justice in this country. The first is that no person should be adjudged guilty of a serious crime except by the verdict of a jury given upon the evidence against him or her. The second is that no person should be found guilty of any crime unless the evidence adduced against him or her establishes his or her guilt beyond reasonable doubt. The first of those principles has been eroded by the increasing number of offences, some of a serious character, which Commonwealth and State Parliaments have decided should, in the interests of the efficient administration of justice, be dealt with summarily. It has been said that its full vigour has been sapped by recent judicial decisions (see Lord Devlin, The Judge (1979), pp. 148ff.). Its significance in the Australian Constitution (s. 80) has been said to have been downgraded, by decisions of this Court, to the status of a "mere procedural provision" (see Spratt v. Hermes (1965) 114 CLR 226, at p 244). Its appropriateness to deal with certain types of crime, particularly what has been called "white collar crime", is currently under question. The second principle has been eroded by statutory provisions which impose heavy pecuniary punishments for the doing of particular acts and provide that the punishment may be recovered by civil action (see e.g., Trade Practices Act 1974 (Cth), ss. 76 and 77). Both principles remain, however, of fundamental general importance to the protection of the ordinary citizen against injustice and tyranny. (at p617)

11. The principle that no person should be convicted of a serious crime except by a jury on the evidence has no corollary requiring that every person who is found guilty by a jury's verdict should remain so convicted. The safeguard provided by trial by jury is not dependent upon any assumption of the infallibility of the verdict of a jury. It would be foolish to deny that a jury may be prejudiced, perverse or wrong. Any notion that a jury's verdict of guilty should be given the degree of finality which the principle against double jeopardy requires to be accorded to a verdict of acquittal has long been rejected: it is, for example, quite inconsistent with the existence of the "common form" ground of appeal that the verdict of the jury "is

unreasonable or cannot be supported having regard to the evidence". Nor is the cause of the continued acceptance of trial by jury likely to be served by treating a jury's verdict of guilty as unchallengeable or unexaminable. To the contrary, so to treat a jury's verdict of guilty could sap and undermine the institution of trial by jury in that it would, in the context of modern views of what is desirable in the administration of criminal justice, be liable to be seen as a potential instrument of entrenched injustice. (at p618)

12. If the evidence which is led against a person fails to establish guilt beyond reasonable doubt, there is a miscarriage of justice if that person is adjudged guilty on that evidence. That is not the same thing as saying that the person has been found guilty when he was in fact innocent. It is to say no more than that the person who has been found guilty has not been proved to be guilty according to the standard demanded by a fundamental principle of the administration of criminal justice. The verdict of guilty is, to use words that have been used in cases in this Court, "dangerous" (see, e.g., Plomp v. The Queen (1963) 110 CLR 234, at p 244), "dangerous in the administration of justice" (see Hayes v. The Queen (1973) 47 ALJR 603, at p 604), "unsatisfactory" (see, e.g., R. v. Wilkes (1948) 77 CLR 511, at p 517) and "unsafe" (Whitehorn v. The Queen (1983) 152 CLR 657) or, to use the combination of words which is frequently adopted in Australian Courts, "unsafe and unsatisfactory" (see, e.g., Hill v. The Queen (1981) 3 ACrimR 397, at p 401). When the trial is by jury and there is evidence which is reasonably capable of being seen as establishing guilt beyond reasonable doubt, the question whether it does so is a question for the jury. So much is clear. The present question is whether, where there is such evidence, a finding of guilt by the jury must stand notwithstanding that an appellate court is persuaded that, on its assessment of the evidence before the jury and notwithstanding the jury's verdict of guilty, there remains a real doubt about the guilt of the accused. (at p618)

13. Until comparatively recently, there was a surprising uncertainty about the appropriate question for an appellate court in considering whether a verdict of guilty should be set aside on the ground that it was unsafe and unsatisfactory. On the one hand, there has been the approach adopted in this Court in Ross v. The King (1922) 30 CLR 246, at pp 255-256 , that, if there be evidence on which reasonable men could find a verdict of guilty, the determination of the guilt or innocence of an accused is a matter for the jury "and with their decision based on such evidence no Court or Judge has any right or power to intervene". On the other hand, there has been the approach that the appropriate question for the appellate court is not whether the appellate court can say that no reasonable jury could properly have reached a finding that the accused was guilty but whether the appellate court is persuaded that the verdict of guilty is unsafe and unsatisfactory or "dangerous in the administration of justice" for the reason that there is a significant and not fanciful possibility that an innocent person has been convicted in that, notwithstanding that the jury which saw and heard the witnesses give their evidence was persuaded of guilt beyond reasonable doubt, it appears to the appellate court that the evidence did not establish the guilt of the accused to that standard of proof. In a series of cases in this Court, the latter approach emerged, at first dimly (see, e.g., Plomp (1963) 110 CLR, at p 244; but cf at pp 245-247 ; Hayes (1973) 47 ALJR, at p 604) and subsequently with clarity (see Ratten v. The Queen (1974) 131 CLR 510), as the approach to be adopted by appellate courts in this country. (at p619)

14. In Ratten (1974) 131 CLR, at p 516 Barwick C.J. identified the two competing approaches and laid down that the approach to be adopted by an appellate court in determining whether there has been a miscarriage of justice is that the court should assess and review the evidence for itself. His Honour said:

> "Miscarriage is not defined in the legislation but is significance is fairly worked out in the decided cases. There is a miscarriage if on the material before the court of criminal appeal, which where no new evidence is produced will consist of the evidence given at the trial, the appellant is shown to be innocent, or if the court is of the opinion that there exists such a doubt as to his guilt that the verdict of guilty should not be allowed to stand. It is the reasonable doubt in the mind of the court which is the operative factor. It is of no practical consequence whether this is expressed as a doubt entertained by the court itself, or as a doubt which the court decides that any reasonable jury ought to entertain. If the court has a doubt, a reasonable jury should be of a like mind. But I see no need for any circumlocution; as I have said it is the doubt in the court's mind upon its review and assessment of the evidence which is the operative consideration" (emphasis added).

McTiernan J. and Jacobs J. expressed unqualified agreement with the reasons for judgment of Barwick C.J. in Ratten and the above statement of law, which was central to the reasoning underlying Barwick C.J.'s judgment, was properly to be seen and acted upon as an authoritative statement of the law by this Court. It has been so accepted and acted upon in the Supreme Courts of the various States (see e.g., Reg. v. Smith (1979) 2 NSWLR 304, at p 309 ; Hill v. The Queen (1981) 3 ACrimR, at p 401 ; Coolwell v. The Queen (1982) 7 ACrimR 368, at pp 373-374 ; Reg. v. McKittrick (1982) VR 637, at p 646 ; and see Glass J.A., "The Insufficiency of Evidence to Raise A Case to Answer", Australian Law Journal, vol. 55 (1981) 842, at p. 844). The mischief which would be involved if this Court were now to reverse that plain and recent statement of law is well illustrated by reference to four Western Australian decisions: Jackman v. The King (1914) 16 WALR 8 ; Armanasco v. The King (1914) 16 WALR 174 ; Reg. v. Privitera (1966) WAR 12 and Conroy v. The Queen (1976) WAR 91 . (at p620)

15. In Jackman and Armanasco, the Western Australian Court of Criminal Appeal expressed and acted upon the view that it was obliged, under the common form statute, to examine the evidence for itself for the purpose of determining whether the verdict in question was or was not satisfactory. In Jackman (1914) 16 WALR, at p 10 McMillan C.J., in a judgment in which Burnside and Rooth JJ. concurred, summarized the position in words which were subsequently adopted in the judgment of Burnside A.C.J., with whose judgment Rooth and Northmore JJ. agreed, in Armanasco:

> "The expression 'satisfactory' is perhaps somewhat wanting in preciseness, but I think its elasticity is an advantage. It is quite clear that we have on the one hand to guard against the danger of substituting trials in this court for trial by jury, but on the other hand, we must no shirk the responsibility which has been placed on us by the legislature. I think, therefore, that the duty of this court is in every case in which there is an appeal on the facts to give the most careful consideration to those facts, and then to ask itself whether it is prepared to say the verdict of the jury is or is not a satisfactory one." (at p620)

16. In Privitera, the Western Australian Court of Criminal Appeal returned to the question in the light of the decision of this Court in Ross (1922) 30 CLR 246 and the decision of the Privy Council in Aladesuru v. The Queen (1956) AC 49 . In obedience to what they understood to have been said by this Court and by the Privy Council in those cases, the members of the Full Court abandoned the approach which had been laid down as appropriate for Western Australia in Jackman and Armanasco. The proper test was stated to be "whether the appellant has satisfied the court that no reasonable jury, properly directed, could have found the prisoner guilty on the evidence before it, had it applied itself to its task in a proper manner . . . " (1966) WAR, at p 13 . (at p620)

17. In Conroy, the Court of Criminal Appeal returned yet again to the question. The members of the Court referred to Hayes and Ratten. It was held that, "(i)n the light of the recent High Court judgments, the test . . . as stated in Reg. v. Privitera . . . is no longer a correct statement of the law and is no longer to be taken as authoritive in this Court" (1976) WAR, at p 94 . On the basis of what had been said in Hayes and Ratten, the Court of Criminal Appeal reverted to the law as laid down in Jackman and Armanasco. (at p621)

18. In these circumstances, I consider that it would need to be demonstrated that the clear statement of the law contained in the above passage from the judgment of Barwick C.J. in Ratten was vitiated by some manifest error of fundamental principle before the Court would be justified in again re-opening the question. No such error of principle has been shown to exist. There is no principle which requires a jury's verdict of guilty in a criminal proceeding to be treated as beyond examination in an appellate court. There is no principle which precludes the approach that an appellate court should hold that there has been a miscarriage of justice if a person has been convicted on evidence which, in the opinion of the appellate court, fails to establish his guilt beyond reasonable doubt. Nor is there any principle of law which requires an appellate court, in determining whether a verdict of guilty involves such a miscarriage of justice, to refrain from itself reviewing and assessing the evidence. The conclusion that, in determining whether there has been a miscarriage of justice by reason of the existence of a reasonable doubt as to the guilt of an accused, it is "the reasonable doubt in the mind of the court which is the operative factor" does not mean that an appellate court is entitled to disregard or discount either the consideration that the jury is the body entrusted with the primary responsibility of determining guilt or innocence or the consideration that the jury has had the benefit of having seen and heard the witnesses: to the contrary, the appellate court must pay "full regard" to those considerations (see per Campbell C.J., Coolwell (1982) 7 ACrimR, at p 375). On all but "rare occasions" (see per Street C.J., Smith (1979) 2 NSWLR, at p 310), those considerations will make it impossible for an appellate court to conclude that the verdict of a jury that the guilt of an accused has been proved beyond reasonable doubt is unsafe or unsatisfactory. If, however, the appellate court, in examining the evidence for itself, is positively persuaded that, notwithstanding those considerations, there remains a reasonable doubt about whether the accused is guilty, the appellate court will be persuaded that there has been a miscarriage of justice for the reason that the evidence did not, in the appellate court's view of it, establish the guilt of the accused to the requisite standard of proof. (at p621)

19. It should be mentioned that, in the leading judgment in Whitehorn, Dawson J. indicated disagreement with Barwick C.J.'s insistence, in Ratten, that "(i)t is the reasonable doubt in the mind of the (appellate) court which is the operative factor". That precise question was not, however, argued in Whitehorn and I am not persuaded that it was adverted to in the judgments of other members of the Court. For the reasons above, I consider that Barwick C.J.'s view, which was the view of the Court, should be accepted and followed. I do, however, respectfully agree with Dawson J.'s rejection of any suggestion that the difference between the alternative approaches is not a significant one. It is true that it will be only in a rare case that the diference will be decisive and that an appellate court will not be persuaded that a jury's verdict that there was no reasonable doubt is unreasonable unless it is itself persuaded that there was such a doubt. Even in an age where there is a common tendency to characterize the genuine viewpoints and conclusions of others as unreasonable however, there remains a clear and significant difference between a decision by an appellate court that, on the appellate court's own assessment of the evidence and notwithstanding the jury's verdict, the guilt of the accused was not established beyond reasonable doubt and a decision by an

appellate court that, even though there was evidence to support it, a jury's verdict of guilty was unreasonable. (at p622)

20. On the hearing of the appeal to the Federal Court by the present applicants, Bowen C.J. and Forster J. understandably regarded themselves as constrained to follow the previous Federal Court decision in Duff. Accordingly, they refrained from considering whether, notwithstanding the jury's verdict, they were persuaded that there was a reasonable doubt about the guilt of the applicants. Jenkinson J. found it unnecessary to consider whether Duff should be followed since his Honour came to the conclusion that, whatever be the correct approach, the applicants' appeals to the Federal Court should be dismissed. In the circumstances, I consider that it is appropriate that special leave to appeal be granted in the case of each application and that the preferable course to be followed at this stage is that this Court consider the evidence for itself for the purpose of determining whether the jury's verdict of guilty is, in respect of either applicant, unsafe and unsatisfactory.
The Evidence. (at p622)

21. The evidence has been canvassed in the judgments of the members of the Federal Court and in other judgments in this Court. I shall refrain from repeating more of it than is necessary for meaningful discussion. The Crown's case that Mrs. Chamberlain murdered her baby and that Mr. Chamberlain was an accessory after the fact to her crime is based upon circumstantial evidence largely provided by the testimony of expert witnesses. The Chamberlains' defence, which has taken the form of a positive assertion that the baby was attacked and taken by a dingo, is based primarily on the direct evidence of themselves and a number of independent witnesses but is supported by, or consistent with, a body of circumstantial evidence including evidence of the nature, habits and abilities of dingoes, of the presence of dingoes and dingo lairs in the vicinity of Ayers Rock and of the finding of tracks and impressions in the sand after the baby was gone from the Chamberlains' tent. It has been common ground throughout that, if the baby was killed by human act, the person responsible must have been Mrs. Chamberlain. (at p623)

22. In general and subject to what is said below, I am in agreement with the analysis of the expert evidence which is contained in the judgment of Jenkinson J. in the Federal Court. The most important effects of that expert evidence, viewed discretely, can be shortly stated for present purposes. It indicated that, as a matter of opinion rather than scientific demonstration, the blood that soaked the baby's jumpsuit around the neckline had probably flowed from a wound or wounds inflicted to the baby's neck by a sharp instrument. It established that scientific tests, which were carried out long after the baby's death and whose reliability is probable but open to reasonable doubt, showed the presence of foetal haemoglobin in a number of places in the Chamberlains' car including a spray pattern under the dashboard. It established that rents in the jumpsuit were caused not by a dingo's teeth but by cutting and stabbing with a sharp-edged and pointed instrument or instruments, such as a pair of scissors, and that such cutting and stabbing had occurred after the jumpsuit had been removed from the baby or her body. It indicated that the jumpsuit had been buried and rubbed in vegetation. The obvious inference from the expert evidence about the jumpsuit is that the damage to the jumpsuit resulted from some human action between the time when the baby was attacked and the time when the baby's clothing was discovered. It arguably follows from the above and other uncompelling evidence relating to the condition of the baby's clothing when and after it was found that, if, as the applicants asserted, the baby had been attacked and carried away by a dingo, the animal caused no discernible damage to the clothing and left no remaining hair in or on it. (at p623)

23. Mrs. Chamberlain's own evidence of her observations in the moment or moments before, without having reached the tent, she cried out that "That dog has got my baby" reads unconvincingly and contains what seem to me to be elements of striking improbability. The same can be said of the evidence of Mr. Chamberlain. There are some inconsistencies in detail between Mrs. Chamberlain's evidence on the trial and statements which she had previously made. If there had been no more to the case than the expert evidence and the evidence of Mr. and Mrs. Chamberlain, it would be difficult to see real force in the argument that the jury's finding that Mrs. Chamberlain had killed her child was unsafe and unsatisfactory. There is, however, independent and direct evidence of the circumstances surrounding the period of between five and ten minutes in which the Crown alleges that Mrs. Chamberlain murdered the baby. The most important of that evidence is that of Mr. and Mrs. Lowe who had first met Mr. and Mrs. Chamberlain less than an hour before the time of the alleged murder. They had had no previous association with the Chamberlains. Their credit was impunged by neither side. Their evidence, supported in some respects by the evidence of Mr. and Mrs. Whittacker, provides a basic factual context which is largely not in dispute. (at p624)

24. Mr. and Mrs. Lowe met the Chamberlains in a barbecue area in the vicinity of Ayers Rock around 7 p.m. on Sunday, 17 August 1980. Mrs. Chamberlain was nursing the baby, Azaria, whom she was trying to put to sleep. There was nothing in her demeanour to indicate that she was other than the loving mother of a normal child. Indeed, Mrs. Lowe, who appears to have observed her closely, gave evidence that "she sort of had a new mum glow about her". Around 7.50 p.m., Mrs. Chamberlain left the barbecue area carrying the sleeping baby. She was accompanied by the Chamberlain's son, Aiden, who was then six years old. She walked to the Chamberlains' small tent which had been pitched, alongside their car, some 20 metres away. If murder was committed, it was in the few minutes which followed. Mrs. Chamberlain gave evidence that she tucked Azaria in her bassinet at the back of the tent, that Aiden told her that he was still hungry, that she went to the car and obtained a tin of baked beans, and that she then returned to the barbecue area having a racing game with Aiden for the first few metres of the way. The Crown alleges that she took Azaria to the front passenger seat of the car and there cut her throat, wearing the bottom half of a tracksuit which was subsequently found by Mrs. Chamberlain to be spotted with blood. It is common ground that Mrs. Chamberlain in fact returned to the barbecue area between five and ten minutes after she left it. If Mrs. Chamberlain had murdered her baby, Mr. and Mrs. Lowe saw nothing to suggest it. In one hand, Mrs. Chamberlain carried the can of baked beans. She wore the same floral dress that she had worn when she left some few minutes earlier. The Lowes saw neither sign of blood on her or her clothes nor anything else unusual about her or her demeanour. At about 8 p.m., Mr. Chamberlain is said to have made a comment about hearing the baby cry. Mrs. Chamberlain walked towards the tent. It was as she drew near to it that she cried out that "that dog has got my baby". According to Mrs. Chamberlain, she had seen a dingo shaking its head as if it had something in its mouth at the entrance of the tent and had observed the empty bassinet within the tent. According to the Crown, her cry was the beginning of a facade of deceit, erected by Mrs. Chamberlain with the subsequent help of her husband, to conceal Azaria's murder. (at p625)

25. It is conceded by the Crown that it is an essential part of its case that, at the time Mr. Chamberlain is said to have made a comment about hearing the baby cry, Azaria had already been killed. If, in fact, a cry from Azaria was heard at that time, the Crown concedes that its case against the Chamberlains breaks down. Mrs. Chamberlain's evidence was that she herself did not hear a cry: she "was rattling the things" at the fire place in the barbecue area and had not heard anything until Mr. Chamberlain said "that he thought he heard Azaria crying or something to that effect". Mr. Chamberlain's evidence was that he thought he heard Azaria cry and said to Mrs. Chamberlain:

"Is that Azaria?" His description of the cry is perhaps too tailored to the circumstances to be likely to excite confidence in its veracity: "It was an urgent cry, not loud. It cut off. It almost seemed as if the baby was being squeezed." Another of the four witnesses to give evidence about a baby's cry was Mr. Lowe. He said that he and Mr. Chamberlain "were heavily involved in conversation" when Mr. Chamberlain made some comment to his wife to the effect: "Was that the baby?" He himself did not hear any baby's cry. The other evidence is that of Mrs. Lowe. (at p625)

26. Mrs. Lowe comes from what she describes "as a family of nine and they always seem to be having children". At the time she herself had an eighteen months old child. She obviously had had considerable experience with babies. Her evidence as to what occurred after Mrs. Chamberlain had returned to the barbecue area with "a can of something in her hand" is clear and unqualified:

> "I heard the baby cry, quite a serious cry but not being my child I didn't sort of say anything. Aiden said: 'I think that's bubby crying', or something similar. Mike said to Lindy: 'Yes, that was the baby.'"

Under further questioning, Mrs. Lowe gave evidence that she was "positive" that the sound she heard was the cry of a baby and that she was also "positive" that the cry "definitely came from the (Chamberlains') tent". As has been said the Chamberlains' tent was only about 20 metres away from the barbecue area. The Crown does not suggest that she could have heard the cry of some other baby. Unless Mrs. Lowe's clear and definite evidence that she heard the cry of a baby is rejected as mistaken, the Crown's case against the Chamberlains must fail. (at p626)

27. The jury in Darwin had the benefit of seeing and hearing Mrs. Lowe and the other witnesses give their evidence. This Court has not enjoyed that benefit. It may be that they formed a view that Mrs. Lowe was an unreliable witness. Perhaps they found support for such an assessment in the fact that Mrs. Lowe gave evidence about seeing a blood-stain in the Chamberlains' tent which conflicted with other evidence. On the other hand, conflicts in evidence about blood-stains in a small tent which was not high enough to permit an adult to stand erect and which was being entered by a number of people in a kneeling and crouching position are not surprising. Perhaps the members of the jury were influenced by the fact that Mrs. Lowe alone claimed to have heard Aiden make a comment about hearing the baby cry. One would, however, question the significance that could be placed upon a failure by Mr. and Mrs. Chamberlain and Mr. Lowe to remember, looking back over the events of that night, the comment of a six-year-old child. Speculation as to what the jury may or may not have thought is not inappropriate however in that it underlines the fact that a starting point of the inquiry whether this Court is of the view that the evidence failed to establish beyond reasonable doubt that Mrs. Chamberlain murdered her baby must be that the jury which was entrusted by the law with the determination of that question and which heard and saw the witnesses give their evidence decided that it did.
Proof of Intermediate Facts. (at p626)

28. There was some discussion in the course of argument as to whether a jury is precluded from taking account of, or drawing an inference from, a fact unless that fact is established beyond reasonable doubt. In the view I take, it is impossible to give a general theoretical answer to that question. There is certainly no requirement of the law that the members of a jury must examine separately each item of evidence adduced by the prosecution and reject it unless they are satisfied beyond reasonable doubt that it is correct. Nor is it the law that a jury is in all circumstances precluded from drawing an inference from a primary fact unless that fact is proved beyond reasonable doubt. If a primary fact constitutes an essential element of the crime

charged, a juror must be persuaded that that fact has been proved beyond reasonable doubt before he or she can properly join in a verdict of guilty. Whether or not a juror must be satisfied that a particular fact has been proved beyond reasonable doubt will, however, otherwise depend not only on the nature of the fact but on the process by which an individual juryman sees fit to reach his conclusion on the ultimate question of guilt or innocence. If, for example, the case against an accused is contingent upon each of four matters being proved against him, it is obvious that each of those matters must be proved beyond reasonable doubt. Indeed, it would be appropriate for the presiding judge to emphasize to the jury in such a case that even a minimal doubt about the existence of each of those matters would be greatly magnified in the combination of all. On the other hand, if the guilt of an accused would be established by, or a particular inference against an accused could be drawn from, the existence of any one of two hundred different matters, each of which had been proved on the balance of probabilities, it would be absurd to require that a jury should disregard each of them unless satisfied, either in isolation or in the context of all of the facts, that any particular one of those matters had been proved beyond reasonable doubt. (at p627)

29. The circumstantial evidence upon which the Crown relied in the present case fell into three main groups: (i) the evidence of foetal haemoglobin in the car and camera case; (ii) the evidence of likely bleeding if a dingo had seized the baby's head and of the absence of large quantities of blood in the tent; and (iii) the evidence of the condition of the jumpsuit and singlet and the arrangement of the baby's clothes when they were found. Those bodies of evidence were cumulative. The jury was entitled to pay regard to all of them even if unpersuaded that any or all of them was proved beyond reasonable doubt. Thus, a conclusion that the evidence directed to showing the presence of foetal haemoglobin in the car was persuasive only to the extent of balance of probability does not mean that the conclusion and the evidence should be rejected as irrelevant. Even though that evidence, viewed discretely, does no more than establish the presence of foetal haemoglobin on the balance of probabilities, it remains part of the totality of the admissible and relevant evidence in the context of which the ultimate question whether Mrs. Chamberlain's guilt was established beyond reasonable doubt fell and falls to be determined.
Conclusion. (at p627)

30. I have found the question whether the evidence failed to establish beyond reasonable doubt that Mrs. Chamberlain murdered Azaria a difficult one. As the judgments in the Federal Court demonstrate, the circumstantial evidence against her was strong. There is much about the defence story of a dingo that strikes me as far-fetched. The Crown case against Mrs. Chamberlain was, however, neither comprehensive nor, in itself, impregnable. The body of the alleged victim was never found. The evidence established no motive for the alleged murder; to the contrary, it was to the effect that Mrs. Chamberlain was the loving mother of a normal child. Indeed, it would seem fair to comment that the Crown case was, perhaps of necessity resulting from the absence of both the baby's body and direct evidence against Mrs. Chamberlain, directed more to destroying Mrs. Chamberlain's defence of the dingo than to positively establishing her guilt. Much of the material upon which the Crown relied - camera bag, scissors, blood-stains on the tracksuit pants - was directly or indirectly volunteered by the Chamberlains. The evidence led by the Crown supported much of the Chamberlains' own account of the context in which the attack on Azaria occurred: it established that Mrs. Chamberlain was engaged in conversation at the barbecue area; that she was nursing Azaria "with a new mum glow about her"; that she left the area to put a sleeping Azaria to bed; that, within minutes, she returned to the barbecue area showing no sign of distress; that when she left and when she returned she was accompanied by Aiden, who

was, apparently, also behaving quite normally; that when she returned she had a can of food in her hand for Aiden; that Mr. Chamberlain - who is not suggested to have been other than an accessory after the fact - made a comment about Azaria crying; that Aiden, in subsequent conversations that evening, indicated that he believed his mother's assertion that Azaria had been taken by a dingo. In that context, the Crown case (that, within the five to ten minutes while she and Aiden were together absent from the barbecue area, Mrs. Chamberlain put on tracksuit pants in preparation for her crime; took her baby to the front seat of the family car; there cut the baby's throat; and afterwards hid the body) strikes me as being, in its own less spectacular way, almost as unlikely as is the story of the dingo. And there remains the clear evidence that the baby was heard to cry after, according to the Crown case, she was dead. (at p628)

31. The expert evidence called by the Crown was contradicted at almost every point by expert evidence called by the defence. On one important and disputed matter, namely, that the damage to the jumpsuit was the result of cutting with a sharp instrument such as a pair of scissors after the jumpsuit had been removed from the baby's body, I consider that the Crown evidence was compelling notwithstanding expert evidence called by the defence. On other important questions, it was left to the jury to attempt to resolve disputes between well qualified experts. Those questions included whether the tests showing the presence of foetal haemoglobin in the Chamberlains' car were reliable, whether the blood-stains on the jumpsuit established that there had been wounds to the baby's throat, and whether there was a likelihood that the teeth of a dingo seizing the baby's head might have occluded any wounds so as to explain the absence of evidence of profuse bleeding in the tent. It is scarcely feasible that a compelling answer to any of those questions was to be found in observing and hearing the expert witnesses as they gave their evidence. It is certainly not, in my view, to be found in a careful examination of the transcript of evidence. (at p629)

32. In the Federal Court, Jenkinson J. examined the evidence relating to the damage to the jumpsuit and concluded that the clear inference was that the damage was the result of human action after the baby's death. As I have indicated, I agree with his Honour in that regard. Jenkinson J. went on to conclude that no hypothesis of an unexplained intervention by any person other than the Chamberlains was within the realm of the reasonably possible. While I am conscious of the force of the reasoning which led his Honour to that conclusion, it is a conclusion that I find myself unable to share. There is an obvious element of the bizarre in any suggestion that the damage to the jumpsuit may have been caused by the unexplained intervention of some unknown person in the days that elapsed between the attack on Azaria and the finding of her clothes in the desert lands around Uluru. In this case of the bizarre however, I am unpersuaded that it is plain beyond reasonable doubt that that damage was not caused by some such unexplained intervention. The unlikeliness of such intervention is a factor, and an important cumulative factor, to be taken into account in deciding whether the evidence established Mrs. Chamberlain's guilt beyond reasonable doubt. It is not, in my view, decisive of that question. (at p629)

33. At the end of the day, the issue whether the evidence established guilt beyond reasonable doubt resolves itself, to no small extent, into questions of the overall effect of conflicting expert evidence, of the inferences to be drawn from the expert and other circumstantial evidence and of weighing circumstantial evidence and the inferences to be drawn from it with and against the direct evidence of the Chamberlains and Mrs. Lowe. In examining the evidence at the appellate level, those questions must be approached on the basis that the jury, whose function it was to determine whether guilt was proved beyond reasonable doubt, decided, after hearing the evidence, that it was. Involved in the jury's verdict was a rejection of the evidence of the

Chamberlains and of the evidence that Azaria was heard to cry after the Crown alleges she was dead. Doing the best that I can, I have finally come to a firm view that, notwithstanding the jury's verdict of guilty, the evidence did not establish beyond reasonable doubt that Mrs. Chamberlain killed Azaria. That being so, the verdict that she was guilty of murdering her child is unsafe and unsatisfactory and constituted a miscarriage of justice. It necessarily follows that the evidence failed to establish beyond reasonable doubt that Mr. Chamberlain was guilty of the crime of which he was convicted.
Orders. (at p630)

34. I would, in the case of each application, grant special leave to appeal, allow the appeal, set aside the judgment and orders of the Federal Court and in lieu thereof order that the verdict of guilty be set aside and the conviction quashed. (at p630)
ORDER
Applications for special leave to appeal granted.

Appeals dismissed.