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## EIGHTEENTH REPORT

 of the
## LAW REFORM COMMITTEE

of

SOUTH AUSTRALIA
to

THE ATTORNEY-GENERAL

## RELATING TO ILLEGITIMATE CHILDREN

The Law Reform Committee of South Australia was established by Proclamation which appeared in the South Australian Government Gazette of 19th September, 1968. The present members are:

The Honourable Mr. Justice Zelling, C.B.E., Chairman.
B. R. Cox, Q.C., S.-G.
R. G. Matheson, Q.C.
K. P, LYNCH.
J. F. Keeler.

The Secretary of the Committee is Miss J. L. Hill, c/o Supreme Court, Victoria Square, Adelaide, South Australia.

## EIGHTEENTH REPORT OF THE LAW REFORM COMMITTEE OF SOUTH AUSTRALIA RELATING TO ILLEGITIMATE CHILDREN

## To:

The Honourable L. J. King, Q.C., M.P., Attorney-General for South Australia.

Sir,
This matter was referred to us by your predecessor and we now report as follows:-

This matter has already received consideration both at the international and national level and it may be convenient to commence with the former.

When the United Nations Commission on the Status of Women met in Geneva in March and April, 1970 the following resolution was adopted:-
"(a) Maternal filiation should be recognized in law in all cases automatically as a consequence of the fact of birth;
(b) The unmarried mother shall enjoy as a parent the fullest set of rights and duties provided for by law:
(1) if maternal filiation only is established, the surname of the unmarried mother shall be transmitted to her child,
(2) in countries where jus sanguinis is applied, the unmarried mother, as a consequence of the fact of birth, shall transmit her nationality to her child,
(3) the unmarried mother shall be vested in law with full parental control over her child,
(4) maintenance rights and obligations between the unmarried mother and her child should be the same as between a sole parent and a child born in wedlock,
(5) when both paternal and maternal filiations are established the maintenance obligations of the parents should be the same as if they were married,
(6) all possible assistance should be given by the State to the mother to help her (a) to establish paternal filiation, (b) to obtain an enforceable agreement by the father or a decision by the competent authority for the support of the child by the father,
(7) if a father does not fulfil his maintenance obligations or if it is impossible to establish paternity, provision should be made by the government,
(8) there should be no discrimination against persons born out of wedlock in all matters of inheritance."

At the national or State level, the problem has already received detailed attention in a large number of the State jurisdictions of the United States and also in New Zealand. Basically the approaches to this problem take one of two forms. Either:-
(a) to destroy in so far as this is socially and legally possible the distinctive legal consequences of illegitimacy so as to assimilate the rights and the position of an illegitimate child to that of a legitimate one; or
(b) to amend the law so that some at least of the disabilities of illegitimacy do not attach to an illegitimate child.

We think that the first of these two alternatives is socially more desirable although given the present climate of public opinion it is probably impossible of complete fulfilment.

We are aware that there are or may be certain constitutional limitations to the full implementation of these recommendations. We have proceeded on the basis that our recommendations should set out what we regard as socially and legally desirable and the question of constitutional power which is a highly debatable one should be left to the Government and its legal advisers.

We have accordingly in general followed the New Zealand pattern of legislation but with certain modifications, some as matters of recommendation, and others because of the existing pattern of legislation in South Australia. The basic section of the New Zealand legislation is their section 3 which reads as follows:-
' 3 . All children of equal status-(1) For all the purposes of the law of New Zealand the relationship between every person and his father and mother shall be determined irrespective of whether the father and mother are or have been married to each other, and all other relationships shall be determined accordingly.
(2) The rule of construction whereby in any instrument words of relationship signify only legitimate relationship in the absence of a contrary expression of intention is abolished.
(3) For the purpose of construing any instrument, the use, with reference to a relationship, of the words legitimate or lawful shall not of itself prevent the relationship from being determined in accordance with subsection (1) of this section.
(4) This section shall apply in respect of every person, whether born before or after the commencement of this Act, and whether born in New Zealand or not, and whether or not his father or mother has ever been domiciled in New Zealand."

Subparagraph (4) deals with a separate question of private international law and we will return to that problem later in this paper. It may no doubt be desirable for constitutional reasons to add a subsection to the New Zealand section saying that nothing in this section affects any law of the Commonwealth relating to legitimation by subsequent marriage or the deeming of a child which is not a child of the marriage to be a child of the marriage for the purposes of the Matrimonial Causes Act, 1959.

Arizona in its Statute provided for this matter in even shorter form:-
"Every child is the legitimate child of its natural parents and is entitled to his support and education as if born in lawful wedlock except that he is not entitled to the right to dwell or reside with the family of his father if the father is married."
We did not adopt this shorter form of definition which is in many ways a very compact one for the reasons of possible conflict with the Commonwealth legislation enumerated above which would have had the usual consequences under section 109 of the Constitution.

The general words of the New Zealand Act do not deal with a particular situation which is dealt with by the English Family Law Reform Act, 1969, and which we think ought to be included in the new South Australian equivalent to the New Zealand section 3. This is that the English Act reverses the somewhat uncertain rule of public policy prohibiting gifts to future born illegitimate children. We think that a similar provision should be made in our Act.
2. The next problem which arises after enunciation of general principles is the problem of whether the child is to succeed to and have rights against its mother or whether it is also to have them against its natural father. The New Zealand law provides that the child should also have rights against its natural father and we agree that this should be so. A subsidiary problem is: Do his rights exist only against his father, assuming paternity can be proved or in relation to all relatives on both sides. We think the child should be allowed to inherit from his maternal and paternal grandparents and collateral kinsmen but we think that as far as maintenance under the Community Welfare Act. 1972, is concerned the rights should only exist in the cases now provided for in that Act.

The English Family Law Reform Act provides that for the purposes of distribution on intestacy, a rebuttable presumption is introduced that an illegitimate child is not survived by his father. We think that convenience of administration would require that a similar principle should apply to children in cases in which paternity has been established against the father.
3. The next question is that of proof. As against the mother there is practically never any difficulty of proof. Against the father: the New Zealand Act deals with it in sections 7, 8, 9 and 10 of the Act. Section 7 reads as follows:-
"7. Recognition of paternity-(1) The relationship of father and child, and any other relationship traced in any degree through that relationship shail, for any purpose related to succession to property or to the construction of any will or other testamentary disposition or of any instrument creating a trust, or for the purpose of any claim under the Family Protection Act, 1955, be recognized only if-
(a) the father and the mother of the child were married to each other at the time of its conception or at some subsequent time; or
(b) paternity has been admitted (expressly or by implication) by or established against the father in his lifetime (whether by one or more of the types of evidence specified by section 8
of this Act or otherwise) and, if that purpose is for the benefit of the father, paternity has been so admitted or established while the child was living.
(2) In any case where by reason of subsection (1) of this section the relationship of father and child is not recognized for certain purposes at the time the child is born, the occurrence of any act, event, or conduct which enables that relationship, and any other relationship traced in any degree through it, to be recognized shall not affect any estate, right, or interest in any real or personal property to which any person has become absolutely entitled, whether beneficially or otherwise, before the act, event, or conduct occurred."
In order to avoid one of the constitutional problems to which we adverted at the beginning of this paper we would think it wise if subclause ( $a$ ) of subsection (1) of the New Zealand section 7 were re-drawn to conform with sections $89-91$ of the Commonwealth Marriage Act, 1961-1966. We also think that the words "in his lifetime" should be deleted from subclause $(b)$ of this subsection.

## Sections 8-10 read as follows:-

"8. Evidence and proof of paternity-(1) If, pursuant to subsection (1) of section 18 of the Births and Deaths Registration Act, 1951, or to the corresponding provision of any former enactment, the name of the father of the child to whom the entry relates has been entered in the Register of Births (whether before or after the commencement of this Act), a certified copy of the entry made or given and purporting to be signed or sealed in accordance with section 42 of that Act shall be prima facie evidence that the person named as the father is the father of the child.
(2) Any instrument signed by the mother of a child and by any person acknowledging that he is the father of the child shaill, if executed as a deed or by each of those persons in the presence of a solicitor, be prima facie evidence that the person named as the father is the father of the child
(3) A paternity order within the meaning of the Domestic Proceedings Act, 1968, shall be prima facie evidence of paternity in any subsequent proceedings, whether or not between the same parties.
(4) Subject to subsection (1) of section 7 of this Act, a declaration made under section 10 of this Act shall, for all purposes, be conclusive proof of the matters contained in it.
(5) An order made in any country outside New Zealand declaring a person to be the father of a child, being an order to which this subsection applies pursuant to subsection (6) of this section, shall be prima facie evidence that the person declared the father is the father of the child.
(6) The Governer-General may from time to time, by order in Council, declare that subsection (5) of this section applies with respect to orders made by any Court or public authority in any specified country outside New Zealand or by any specified Court or public authority in any such country. For the purposes of this subsection, the Cook Islands, Niue, and the Tokelau Islands shall be deemed to be countries outside New Zealand.
9. Instruments of acknowledgement may be filed with Registrar-General-(1) Any instrument of the kind prescribed in subsection (2) of section 8 of this Act, or a duplicate or attested copy of any such instrument, may in the prescribed manner and on payment of the prescribed fee (if any) be filed in the office of the RegistrarGeneral, but it shall not be necessary to file any such instrument.
(2) The Registrar-General shall cause indexes of all instruments and duplicates and copies of instruments filed with him under subsection (1) of this section to be made and kept in his office, and shall, upon the request of any person who, in the opinion of the Registrar-General, has a proper interest in the matter, cause a search of any index to be made, and shall permit any such person to inspect any such instrument or any such duplicate or copy. In any case of dispute as to a person's interest in the matter, the Registrar-General shall, upon that person's request, submit the matter to a magistrate, whose decision shall be final.
(3) Where the Supreme Court makes a declaration of paternity under section 10 of this Act or where a Magistrate's Court makes a paternity order within the meaning of the Domestic Proceedings Act, 1968, the Registrar of the Court shall forward a copy of the declaration or order, as the case may require, to the Registrar-General for filing in his office under this section, and on receipt of any such copy the Registrar-General shall file it accordingly as if it were an instrument of the kind described in subsection (2) of section 8 of this Act.
(4) For the purposes of this section "Registrar-General" means the person for the time being holding office as Registrar-General under the Births and Deaths Registration Act, 1951; and includes any person for the time being discharging the duties of that office.
10. Declaration as to paternity-(1) Any person who-
(a) being a woman, alleges that any named person is the father of her child; or
(b) alleges that the relationship of father and child exists between himself and any other named person; or
(c) being a person having a proper interest in the result, wishes to have it determined whether the relationship of father and child exists between two named persons,
may apply to the Supreme Court for a declaration of paternity, and if it is proved to the satisfaction of the Court that the relationship exists the Court may make a declaration of paternity, whether or not the father or the child or both of them are living or dead.
(2) Where a declaration of paternity under subsection (1) of this section is made after the death of the father or of the child, the Court may at the same or any subsequent time make a declaration determining, for the purposes of paragraph (b) of subsection (1) of section 7 of this Act, whether any of the requirements of that paragraph have been satisfied.
(3) The provisions of the Declaratory Judgments Act, 1908, shall extend and apply to every application under subsection (1) of this section.

Cf. Matrimonial Causes Act, 1950, (U.K.), s. 17 (1); 1963, No. 71, s. 8 (4)."

We think that in addition to these methods of proof, there should be a section providing for proof of paternity by blood tests in such cases as the blood tests can furnish evidence of paternity, as is now provided for by law in England, New Zealand and in a number of the United States. For the position in England we refer to Part III of the Family Law Feform Act, 1969, and for that in New Zealand to section 50 of the Domestic Procedure Act, No. 62 of 1968.
With regard to the declaration of paternity in section 10, it may well be that welfare authorities or any other appropriate representatives of the child, such as Public Trustee, preferably in agreement with the mother where this is possible, but this may not always be so, should be entitled to bring a paternity action on behalf of any illegitimate child where the action is not brought by the mother and of course the section would need to provide also that the mother could not defeat any such action where a Court was satisfied that it was in the interests of the child that such an action should be brought. If such an action was brought by some representative department or body on behalf of the child then any settlement entered into in relation to the child's maintenance support and other rights would also have to be subject to the approval of that representative. It may be necessary in any event to provide that, as in the case of infant settlements at present, any contemplated settlement which involves the interests of an illegitimate child under this Act requires the sanction of the Court.

The Committee was most fortunate in having the assistance of Dr. Judith Hay and Dr. Manock in relation to the present position and future trends in the field of proof of paternity by genetic and blood tests and expresses its appreciation to both these eminent specialists. A copy of their evidence accompanies this Report.

Having heard them we are of opinion that as this area of research may well in the future produce a substantial increase in the number and quality of tests available as evidence and render obsolete or of less value some of those now used the legislation should not seek to impose a comprehensive scheme setting out which kinds of test may be an issue. In a field in which science is a case in which paternity is which is too rigid or drawn with too much developing any section future prevent the admission of evidence obtained from thay in the today either unknown or too unreliable to be acceptable as which are Legislation should therefore be drafted in general terms and generally permit the use of blood and genetic tests where in the opinion of the Court the evidence so obtained is relevant to the issue before it and the Court is satisfied of its reliability.

To this principle we make one exception. It is now clear that blood tests, properly performed, do provide reliable evidence relevant to the issue of paternity and that they can provide compelling evidence that a particular person cannot be the father of a particular child. The Committee thought it proper to recommend that in any civil proceedings in which paternity is in issue the Court should have power to order the parties to submit to blood tests. The Courts in England and in New Zealand already possess this power, though they deal with refusal to submit to a test ordered by the Court in different ways: the English Family Law Reform Act permits the Court to draw such inferences
from the fact of refusal as seem proper, but the New Zealand provision is more specific (Domestic Procedure Act, No. 62 of 1968, section 50). It provides that if the case is initiated by an application from the mother her application shall stand dismissed on her refusal to supply a blood sample and may stand dismissed if she refuses to consent to a blood sample being taken from the child; if the putative father refuses to supply a blood sample the Court may dispense with the necessity for corroboration of the complainant's testimony. The New Zealand provision applies only to cases in which maintenance is claimed or an affiliation order sought, and not with the wider issues which may arise on an application for a declaration as to paternity (which, if our recommendations are accepted, may be made by the child or by a welfare authority, and which may often be sought for reasons of inheritance rather than of maintenance).

The Committee thinks it proper to recommend that if the mother refuses to supply the blood sample her application shall stand dismissed and if she refuses to give that consent in relation to a blood sample from the child the complaint may stand as dismissed, but no such dismissal shall operate as res judicuta or as an issue estoppel in any later application by or on behalf of the child. If the putative father refuses to supply a blood sample, this will amount to prima facie (but not conclusive) evidence of paternity against him. A majority of the Committee consider that this should operate by way of res judicata or issue estoppel against the father in subsequent proceedings raising this issue.

The Committee further thought it proper to draw your attention to some matters of drafting significance, namely that if these recommendations are adopted it might also be proper to specify the form of report of the result of the blood test (e.g., whether it should include a statement as to whether the man cannot be the father of the child, or, alternatively, the significance of the tests on the issue of paternity; cf. Family Law Reform Act, 1969 (England) section 20 (2)-(6)), and to provide for regulations as to persons who may make the tests, methods of ensuring that the right person is tested, and so on (Family Law Reform Act sections 22 and 24).

We are a little doubtful whether the provisions of section 9 subsection (2) of the New Zealand Act are sufficiently stringent to prevent in practice search of records by persons other than those who should be allowed to have access to the information. We think that records of proceedings to determine paternity and documents relating to it should not be open to public inspection except by direction of a Court. We fear that the New Zealand provision may in the case of an official decision given wrongly, but in good faith, allow people other than those who ought to properly be given such information to have it. This in its turn raises the problem of feeding such evidence into a computer and its distribution, a matter which is of course being dealt with by us in another paper on a general basis, but we draw attention to the problem in relation to this matter and it may well be necessary to provide that it shall be an offence to distribute any such information contained in records stored in a data bank or distributed through a computer-type means of communication without an order being obtained from a Court.
4. Having now dealt with the child's rights against the parent, there are certain questions which arise as to the natural father's rights as against the child. They seem to be as follows:-
(a) he should have a similar right to succeed to the child on intestacy equally with the mother.
Whether the relatives of the father should have such a right is more open to doubt.. On balance we think probably they should but this in the last resort is a question of policy.
(b) If a child's rights as against a father are established his consent to an adoption should be required if he is prepared to take the child himself and the Adoption Court thinks that it is in the best interests of the child to let the father have it rather than to have the child adopted.
(c) At present the mother can by deed poll registered in the office of the Registrar-General of Deeds change the name of an illegitimate child without the father's consent and we think this should be altered if paternity has been established and the father is maintaining the child.
(d) The same observations apply with regard to custody. The rights of the natural parents for custody of the child should be determined on the same principles as apply between the custody of a legitimate child, namely that the over-riding principle is the interest of the child and a Court should be entitled to entertain an application by a natural father and to do what seems best in the interests of the child.
(e) If the natural father is in fact maintaining the child then questions arise as to what say he should have with regard to the child's education, its place of living and generally the control which a natural father would have over a legitimate child.. Again we think that the father should have some rights in this behalf but it may be necessary to provide that in case of dispute the parties shall have the right to go to a Court, presumably under an amendment to the Guardianship of Infants Act, to have such matters decided.
5. It would also be necessary to provide a section in our Administration and Probate Act similar to section 49E of the Administration and Probate Ordinance, 1929-1967, of the Australian Capital Territory, subsections 1-4 of which read as follows:-.
"49E. (1) Where an intestate is survived by an illegitimate child, the child is entitled to take the interest in the intestate estate that the child would be entitled to take if the child were the legitimate child of an intestate.
(2) Where an illegitimate child of an intestate has died before the intestate leaving issue (being issue who are the legitimate issue of the child) who survive the intestate, the issue are entitled to take the interest in the intestate estate that they would have been entitled to take if the child had been the legitimate child of the intestate.
(3) Where an intestate (being an illegitimate person) is survived by a parent or both parents, the parent is or parents are, as the case may be, entitled to take the interest in the intestate estate that the parent or parents would have been entitled to take if the intestate had been the legitimate child of the parent or parents.
(4) For the purposes of this Division and the Sixth Schedule in their application to and in relation to an intestate, relationship may, to such extent only as is necessary to enable effect to be given to the preceding subsections of this section, be traced through or to an illegitimate person as if the person were the legitimate child of his mother and, subject to the next succeeding subsection. of his father."

There are two other subclauses of section 49E of the Australian Capital Territory Ordinance but these deal with matters of proof in relation to the father of the illegitimate child and we have already dealt with this question of proof in this paper.
6. Protection to executors and administrators. New Zealand has provided for this by section 6 of their Act which reads:-
"6. Protection of executors, administrators and trustees-
(1) For the purposes of the administration or distribution of any estate or of any property held upon trust, or of any application under the Family Protection Act, 1955, or for any other purposes, no executor, administrator, or trustee shall be under any obligation to inquire as to the existence of any person who could claim an interest in the estate or the property by reason only of any of the provisions of this Act.
(2) No action shall lie against any executor of the will or administrator or trustee of the estate of any person or the trustee under any instrument, by any person who could claim an interest in the estate or property by reason only of any of the provisions of this Act, to enforce any claim arising by reason of the executor or administrator or trustee having made any distribution of the estate or of property held upon trust or otherwise acted in the administration of the estate or property held on trust disregarding the claims of that person where at the time of making the distribution or otherwise so acting the executor, administrator, or trustee had nn notice of the relationship on which the claim is based."
We think that it would be wise if a similar provision was inserted in our Act, but altering the clause by striking out the words "had no" in the penultimate line and inserting the words "acted in good faith and without". The Committee would also recommend the giving of a power of tracing to the trustee-see the U.K. Act, section 17.
7. One matter which does not appear to be dealt with in the New Zealand Act but is dealt with in a number of the American Statutes is the question of the limitation of time for bringing such actions. The times vary up to four years after the birth of the child. There is much to be said for such a limitation period in that after that time it would be very difficult to adduce the necessary information to prove legitimacy of the child. On the other hand, the New Zealand Act no doubt works on the system that it may be desirable to have the proceedings taken at any time during at least the infancy of the child and the more remote in time the more difficult it will be to induce a Court to act on the evidence so that the provision is in any case self limiting. We are in favour of the New Zealand system of having no time limit imposed.
8. As the law is at present, if an illegitimate person dies intestate, unmarried and without issue the Crown takes by escheat or bona vacantia according to the nature of the property which he leaves (see In re Holliday 19222 Ch. 698) and accordingly it will be necessary to insert a section that the Act binds the Crown.
9. This leaves only one further problem, a problem of private international law which the New Zealand Act has dealt with summarily in subsection (4) of section 3 which reads as follows:-
"This section shall apply in respect of every person, whether born before or after the commencement of this Act, and whether born in New Zealand or not, and whether or not his father or mother has ever been domiciled in New Zealand."

A former member of this Committee, Mr. D. St.L. Kelly, who was a member when this matter was first discussed, pointed out that if section 3 (4) of the New Zealand Act was adopted in South Australia its results would be to require the South Australian Courts to ignore certain provisions of a foreign or intestate lex successionis which is itself applicable by virtue of South Australian choice of law rules and that in many cases where a foreign lex successionis is applicable South Australia has no interest in the outcome in the sense that residents of South Australia will not be affected one way or the other by the Court's decision, and he therefore proposed that the Territorial operation of the Act should be limited to cases where-.
(1) South Australian law is the lex successionis, or
(2) The de cuius was ordinarily resident, or domiciled in South Australia at the relevant date or was born or had his domicile or origin here, or
(3) South Australian interests would otherwise be detrimentally affected.

We can sce arguments both for and against this suggestion. There are certainly profound constructional difficulties about the third of Mr Kelly's points. Clearly there would be confusion as to law if South Ausiraiia were to assert a jurisdiction which was unenforceable as being too wide.. On the other hand, the New Zealand law does provide a general frame of reference in relation to all persons within New Zealand. We think probably that as a matter of law Mr. Kelly's observations are well founded. As a matter of practice we think it wiser to adopt the New Zealand approach as it provides a general frame of reference but we draw the Government's attention to both these matters as a matter of policy
10. The Committee recommends that the rule preventing evidence being given which might tend to bastardize the issue of a marriage usually referred to as the rule in Russell v. Russell 1924 A.C. 687 should be amended in the same way as is done in section 98 of the Commonwealth Matrimonial Causes Act, 1959, and that this amendment should be placed in the Evidence Act so that it is clear that it applies to all proceedings in which the rule may be invoked. The Committee further recommends that the standard of proof in matters relating to illegitimacy
should be identical with that set out in section 96 of the Matrimonial Causes Act so as to obviate any conflict of findings as to illegitimacy, in State and Federal jurisdiction, based on varying standards of proof.
11. There are many Statutes which would require consequential amendment as a result of the implementation of this report. The following does not purport to be an exhaustive list but we believe it gives a reference to most of the important Statutes in this field.

The following Acts mention children or illegitimate children. If the status is to be abolished the word "illegitimate" must be removed from all Acts.

Administration and Probate Act: s. 53 and s. 55 (inheriting from mother).

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\begin{aligned}
& \text { s. } 54 \text { "issue" used.. } \\
& \text { s. } 117 \text { (a) "children". }
\end{aligned}
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Adoption of Children Act: s. 21.
s. 30 (3) saves legitimate child's inheritance rights from dead parent when next spouse of surviving parent adopts it. Should this be extended to cover adoptions by next spouse where parents are not married (or where marriages terminated by divorce instead of death)?

Births, Deaths and Marriages Registration Act.
s. 22 , s. 24 (name changing).
s. 57 . Heirs to take where child would have been legitimated had he survived to parents' marriage. Will need amendment depending on succession amondments.
Education Act. "child".
Emergency Medical Treatment of Children Act. "child".
Father's rights could be extended so that his consent is sufficient for some treatment short of necessary to save life.

Estates Tail Act.
Evidence Act.
s. 34h. "child".

Friendly Societies Act.
s. 7, s.23. "child", benefits, and immediate payments of benefits on death. Should these include illegitimate children?
Gift Duty Act.
Illegitimate children, already pay some rates of duty.

## Hospitals Act.

s. 47. Recovery of hospital charges from relatives. Should include illegitimate relatives with provisions for simple proof of relationship. e.g., for de facto families.

Housing Improvement Act.
s. 44. "children".

Juvenile Courts Act, 1971.
ss. 12 and 15. Reference to Juvenile Court.
s. 14. Powers of panels.
s. 29. Attendance of parents.
ss. 35 and 36. Inform parent of child's right to plead and explanations to parents.
s. 41. Report to parent.
s. 52. Payment of compensation by parent.
ss. 56 and 57. Committal of uncontrolled child or truant child.
s. 66. Appeal from committal order.
s. 74. Punishment of parents.

A father of an illegitimate child should be given these rights and duties.

Law of Property Act.
s. 60. Raising portions for child.
s. 100 . Policies of assurance.

Should these include an illegitimate child.

## Real Property Act.

s. 27. "child".
s. 181. We think that expressions like next-of-kin or heir-at-law should cover illegitimate children, and this should be specially provided for.

Settled Estates Act.
Should an illegitimate child be a tenant in tail or a beneficiary under a settled estate either generally or under existing settlements as well as future settlements?

Community Welfare Act, 1972.
We refer to section 98 and the definition of "near relative" in section 6.

Succession Duties Act, 1929-1970.
s. 63 (a) (3) (b), s. 63 (a) (6) (b). Paying out small estates without duty clearance to ancestors and descendants: should include payments to illegitimate relations.
s. 56 (a) (1), s. $56(a)(1)(a)$. Parents and illegitimate children succeed from each other at rates applicable to legitimate children.
Should other relations pay at the same rates?
s. 55 (b) (3). No illegitimate relationships are included for remission of duty except mother-child, and other children of mother.
s. 55 (c), s. 55 (e). Rebates do not apply to illegitimate relationships.
Inheritance (Family Provision) Act, 1972.
s. 6. Illegitimate children can claim in some circumstances-but this excludes actual maintenance following oral agreement. How far should it be extended?

## Wills Act, 1936.

s. 35. Settled estates question.
s. 36. Does this include illegitimate child at both generation levels?

Workmen's Compensation Act, 1971.
s. 8. Definition of "member of family".

Wrongs Act, 1936.
s.18. Definition excludes illegitimate brothers and sisters, grandchildren and step relations.
s. 20 (2b). Limitations on bringing actions. Appears to cover both parents of illegitimate child.
s. 23 a (4). Father of illegitimate child cannot claim solatium. If this is altered, should there be provision for apportionment between parents?
In any event should there not be provision to cover the case where only one parent sues for notice to be given of the action to the other parent-a problem which would be greatly increased by the amendment proposed. For this general problem see the judgment of Mr. Walters, S.M. (as he then was) in Farrant v. Maczkowiack 1952.

We are grateful for the research done by Mrs. Margaret Hunter, then associate to the Chairman who also drafted this report.

We have the honour to be
Howard Zelling.
B. R. Cox.

John Keeler.
Kevin Lynch.
R. G. Matheson.

The Law Reform Committee of South Australia.

## EIGHTEENTH REPORT OF THE LAW REFORM COMMITTEE OF SOUTH AUSTRALIA RELATING TO ILLEGITIMATE CHILDREN

## Interview with Dr. Manock

Mr. Cox, Q.C., S.G.: Will you tell us your full name, address and occupation?
Dr. Manock: Colin Henry Manock, 54 Cavendish Avenue, Devon Park; Director of Forensic Pathology.

Mr. C.: What are your qualifications?
Dr. M.: M.B., Ch.B., Leeds, 1962.
Mr.C.: I think you have read Dr. Hay's evidence before the Committee on the 8th March last.

Dr. M.: Yes, I have.
Mr. C.: On the aspect of blood grouping and a determination of paternity is there anything which you would like to add?
Dr. M.: I think that from the evidence that Dr. Hay submitted there is very little for me to add or detract. I can find nothing which I would like to add or detract.

Mr.C.: Is there any other field which you see as a useful determinate of paternity?

Dr. M.: There are numerous other characteristics which are inherited from the parents which should be considered, and I feel that little weight is given to, say, the colour of the child's eyes. If a child has brown eyes, the mother has blue eyes and the putative father has blue eyes, then obviously the putative father has been falsely accused. One of the difficulties is that the colour of a child's eyes does not develop immediately at birth and therefore one has to state a time after which the colour is properly formed. In the case of the colouration of the eyes, three years would be a reasonable time. You probably know that all white babies are born with blue eyes: the colour eventually changes within three years.

Dr. M.: Finger prints can be used at the time of birth. There are patterns on the fingers which derive from the patterns of father and mother and this could be tested from birth. The finger prints remain constant throughout life.

Mr. C.: Could we discuss those two?
Dr. M.: Blood grouping is a genetic characteristic in this kind of exercise. It is of the same sort of standing and recognition. No one challenges it.

Mr. C.: Can one say the same of these characteristics such as eye colour and finger prints?

Dr. M.: I think the genetics of finger prints and colouration of eyes are well accepted throughout the world and have been investigated. It is just that it has rarely been applied in this particular field.

Mr. C.: Is this likely to enter the field of certainty or reasonably possible or strong possibility?

Dr. M.: Again, results from genetic characteristics which are inherited are mainly on an exclusionary basis. With finger prints there is a possibility of positive identification of the father but this is most uncommon. It would have to be very infrequent collection of characteristics, but it is an instrument which can be used to widen the search I feel should be applied.

Mr. C.: You say it has been used in Denmark?
Dr. M.: Yes.
Mr. C.: What about bone structure?
Dr. M.: Bone structure. The genetic characteristics determine the underlying bone structure but unfortunately these are not fully formed until after the age of puberty. Age of 15 or 16 years.

## Mr. C.: Can you give us some indication of how it works?

Dr. M.: The width of a person's eye, the length of the jaw, the distribution of the teeth. In fact, there is research going on in Adelaide at the moment as to the structure of the jaw arch. (The Dental Hospital.) So that by a computerized assessment of the shape of person's jaw it would be possible to say whether or not this is a probable result of a union between A and B. The criteria which are used are similar. The same ones as are used by anthropologists.

Mr. C.: That touches on something which is relevant to blood grouping. Are race characteristics different in the case of finger prints or eye colouration or are they universal?

Dr. M.: Eye Colouration is certainly distributed on a racial basis. You never get a person of pure Jewish blood with blue eyes. They all have brown eyes. There are variations about the world which would assist-as information for the serologist. You would be able to say from the colour of the eyes. The proposition that a brown-eyed child cannot be the child of a blue-eyed father. There are not pitfalls with the finger print characteristics, except perhaps finding your expert to do the investigations the person with experience in genetics. I know three people: one in Denmark and two in the United Kingdom who are currently working in this field. They have to be more than tolerably adept at examining finger prints and that is the area in which the Police are expert and doctors generally are not.

Mr. C.: What about eye colour?
Dr. M.: There are some genetically determined features which can only be transmitted through certain parents and subject to qualifications, e.g., a putative father does or does not suffer from a congential disease.

Mr. C.: On all these questions on bone structure or on the eyes, who in Adelaide could give evidence on such a matter?

Dr. M.: A member of the Department of Genetics.
Mr. C.: And you don't know anyone in South Australia or even Australia who is qualified to give evidence as to the finger prints?

Dr. M.: No.

Mr. Matheson: How do the genetic tests compare with the blood group tests on the need to exclude a defendant from being the father of a child?-I'll change the question: Do any of the genetic tests enable a geneticist to include possibly a comparison as to who is the father of a child?

Dr. M.: Yes they do. We have the example of a brown-eyed child who could not possibly be the result of a union of two blue-eyed parents.

Mr. M.: Is that the only example, of the eye colour tests, that could be used in that way?
$\operatorname{Dr}$. M.: There are various shades of brown through hazel and grey which too would be incompatible with the union of two blue-eyed parents.
Mr. M.: And what about the finger print tests?
Dr. M.: The finger printing is more of a statistical test where the probability of a particular feature being noted in a child is the result of a union with parents with different finger print characteristics and then multiply by 20 for each of the digits. More often than not this is exclusionary and you will never get the finger print investigator to say that this putative father is definitely the father of the child, but you will get exclusionary evidence.
I think that the whole picture should be correlated so that instead of having a figure of one in five hundred possibility from blood grouping and considering this as a test for decision one should also take into consideration this child and these possible parents. Even then the odds are normally against that man being the true father. The difficulty from the Court's point of view would be that you really need to be some sort of mathematician to weigh both tests of serologists and the tests of genetics.

You need somebody to look at them, somebody outside the Court to be able to weigh opinions on percentages taking both sets of tests into account.

Mr. C.: Do you know where we can get a copy of the Danish legislation which incorporates genetic tests?

Dr. M.: I would suggest you try Professor Harald Gormsen of the University of Copenhagen (Professor of Forensic Medicine) Frederick 5 Vej, 9 Copenhagen, Denmark

Mr. M.: The English legislation provides in the case of blood tests that the medical man making the test shall state in his report firstly the result of a test, secondly whether the party to whom the report relates is or is not excluded by the results from being the father of the person whose paternity is to be determined and thirdly if that party is not so excluded the value, if any, of the results in determining whether that party is that person's father.

One of the reasons why we are discussing the blood test is that obviously blood test evidence is already used in the Court. Our basic problem is whether or not we should direct that blood samples be given.
Mr. K.: Even assuming that there were in South Australia genetic experts to deal with these problems of bone structure and finger prints and genetic test of diseases, we would have an enormous problem from our privacy aspect in directing that these tests be taken.

Dr. M.: I don't think it is much of a breach of privacy to have one's finger prints taken, certainly hardly akin to assault. One is not taking any risk with the health of a person; least of all the child.

Mr. Keeler: It does seem from what you have said that it would be an advantage if we merely mentioned genetic tests in the legislation as something which the Court should be able to take into account and this would direct people to think about these things.

Dr. M.: I think this would be the easiest way to cover the situation in South Australia because we just do not have the experts at the moment. It is hoped that we will acquire experts in this field eventually and if the way is laid open now I think that is possibly all that can be done.

Mr. M.: As I understand the English provision contained in the Family Law Reform Act and the provisions contained in the South Australian Social Welfare Act, a Court cannot compel the putative father to enable a sample of his blood to be tested.

Dr. M.: If you want genetic tests to be in the legislation the consent of the putative father should always be obtained likewise. In so far as any touching of the putative father is involved, as far as I remember the situation is that a putative father need not necessarily undergo tests but if he does not do so then the opinions of the Court might be influenced by his refusal and if this is the case then I don't see any real need for forcing him to undergo tests.
Mr. K.: The words of the English Act are all drawn as if he does not consent.

Dr. M.: As far as genetic tesis are concerned, there are some practical problems in that the geneticist really needs to see not only the three-the mother, the putative father and the child, but people such as the parents of either or both of the mother and the putative father. A much more full report could be produced in this manner and this would allow a greater number of factors to be considered which, from the parents alone, would be excluded because the possibility of further characteristics being common in both of them. It could even be said that the medical history widens the field even to a much greater extent but this is a problem for the geneticist to face in each individual case providing there is co-operation, and I feel this work is well worth carrying out.
Mr. M.: In this article that we have been given on the English Family Law Reform Act, 1969 by Stephen Cretney published in the New Law Journal appears this statement-if the defendant is not the father there will now be at least a $70 \%$ chance that his innocence will be conclusively established by a blood test. Do you know how the author fixed that percentage?

Dr. M.: I think this is from the distribution of the various blood groups in the United Kingdom. This would be quite different for a different community but I think that with genetic assessments being carried out it is possible to increase that figure to even $90 \%$.

Mr. M.: In estimating possibilities does the geneticist or the serologist choose the followed method in talking about percentages?

Dr. M.: The mathematics used would be a statistical method. There are so many different methods of applied statistics that even with the same figures people could arrive at different percentages. I think it would be wise in each State to standardize the method by which the figures are processed to arrive at a percentage, but I doubt whether that would be possible.

Mr. C.: Could you tell us more about finger prints?
Dr. M.: As I understand it, the use of finger prints as a means of identification is established. No two finger prints are identical. It is a general form of characteristics that is transmitted from parent to child. One does not transmit a complete duplicate print from, say, mother to child. One transmits a print which is a composite of the mother and father's prints from that particular finger so that one would consider in turn the mother's left little finger, the child's left little finger and the putative father's left little finger. There are characteristics which could occur in the mother and putative father but they may also be characteristics present in one only so that the chances of finding some characteristic of value is quite enormous when you have twenty fingers. The patterns also from the palms of the hands are also genetically determinant so that the presence or absence of a particular palm print feature may also be considered so that the number of factors to be considered is increased.

If we take a practical case of a child who is the subject of this investigation and the blood test merely indicates that the child may be the child of the putative father, then you turn to your eye test and again such is negative-the putative father may be the father of the childthen you come to the finger print and palm print so the cumulative effect shows that the child could not be the child of the putative father. Finger print material may give such a result.

Mr. C.: That means that the whole benefit of the test has been established?

Dr. M.: Yes, it assumes that the finger print evidence simply establishes that the child could be the child of the putative father.

Mr. C.: Is it a question of having firstly imposed on those three a judgment which goes beyond the assessment of any one of them achicved?

Dr. M.: I think when considering three different kinds of evidence that one says that the possibility of the putaiive father is, in fact, the true father becomes much nearer to unity as the chances of all these characteristics being present becomes more and more high so that the probability that the man is the father becomes more likely to be established to the Court's satisfaction.

Mr. C.: I think you agree, Doctor Manock, that the third test that we postulated, finger prints, but still returning a negative result, told you more than you had learnt when you simply had done one test of blood grouping and got a similarly negative result. There was a cumulative value from those three negative results which took the result of the test beyond one negative result alone?

## Dr. M.: Yes.

Mr. C.: And I think I put it to you that it would require a skilled and experienced geneticist, I suppose, to make that evaluation and express it in terms of a possibility, probability or a proportion?

Dr. M.: Yes.
Mr. C.: Is there anyone in Adelaide who would be competent to make such an evaluation?

Dr. M.: The University Department of Genetics would be able to furnish such evidence.

Mr. M.: This is a question which troubled me when I was asking you questions before: One expert who is qualified to express an opinion about the result of all those tests would assess the percentage chance of $X$ being the putative father as say $70 \%$, but another expert who is also qualified would assess them all differently and perhaps might say $85 \%$, is that not so?

Dr. M.: I think a lot depends on the parameters one takes in arriving at the percentage. When one considers blood groups alone then one is considering the possibility of this combination of the factors arising from the population at large, but when one is considering genetic factors which are present or not present then one can only take into consideration the factors that have been tested and then express this as a factor of the total number of factors which could have been considered. This would give a more truly pure mathematical expression than one which depends on the type of blood group present in the man in the street and it would be much more useful in assessing the possibility or probability of X being the father of the child.

Mr. M. : Are you really saying that my difficulties are theoretical or are you saying that you assume that two expert witnesses would not be called before the Court that had to decide the question?

Dr. M.: I don't think that one would require two expert witnesses to give you the possibility or probability statistic because the geneticist would be able to incorporate the results of the serologist in his calculations.

Mr. M.: I can see the utility of a geneticist combining all these tests but supposing in a paternity suit the mother called this expert to say that he had done all these tests and express an opinion on the percentage chance that the defendant was the putative father, and supposing that the father called another expert who looked at the same material, is he likely to reach the same percentage on the same material or might things differ?

Dr. M.: No, because the way in which geneticist works are considered results are pretty standard throughout the world so that one geneticist should give you the same answer as another geneticist provided they considered the same factors. However, I feel that it is possible for the Court to ask for an opinion rather than either the defendant or the plaintiff, in which case there can be no colouration of one's opinion, or the expert's opinion.

Mr. Justice Zelling: I don't suppose the percentage difference would matter so much provided they were both on the same side of the probability which the Court had to find. It would only be if they were on different sides of the probability line and that you would think, Doctor Manock, unlikely?

Dr. M.: Most unlikely.
Mr. M.: Much less unlikely where there is more than one genetic test?

Dr. M.: Much less likely where there is more than one genetic test-Yes.

Mr. Power: There is just one thing which I do not quite understand: Did you say the finger print tests were not exclusionary but only suggestive? Can they be absolutely exclusionary?

Dr. M.: In very unusual circumstances-Yes. There is no black and white in these matters at all but I can envisage one set of finger prints on a child being quite impossible to have been produced by one particular father. When one comes to practical considerations and one has actual cases before one, you do not come up against these theoretical possibilities.

Mr. C.: Can you suggest anyone to us at the Genetics Department who could give us a practical run through on this kind of work?

Dr. M.: I am afraid I am not familiar with the members of the staff there.

The Committee thanked Dr. Manock for his attendance and he then retired.

## EIGHTEENTH REPORT OF THE LAW REFORM COMMITTEE OF SOUTH AUSTRALIA RELATING TO ILLEGITIMATE CHILDREN

## Interview with Dr. Hay

Mr. Justice Zelling: Your full name, address and occupation are?
Dr. Hay: Dr. Judith Alison Hay living at Mount Osmond. I am a legally qualified medical practitioner, registered pathologist in the State of South Australia, Director of Serology to the S.A. Red Cross Blood Transfusion Service, Honorary Serologist to the Queen Elizabeth Hospital, Honorary Consultant Serologist to the Royal Adelaide Hospital.
H. H.: With regard to blood groupings for the determination of paternity what is the current practice in this State?

Dr. H.: Might I ask, is this aimed to establish that a man is perhaps not the father of a child or aimed to establish that a child is the child of the father.
H. H.: Basically the second of those, but on the other hand if the evidence excluded him well then it would equally do its work.

Dr. H.: The angle is somewhat different and to the best of my knowledge this second aspect has not been looked at here. All the work that we have done has been in an attempt to exonerate a man from an accusation of paternity. Here to the best of my knowledge it is all done in the Red Cross blood bank in the blood group reference laboratory and we are testing red cell types of the mother and putative father and child in parallel and reporting on these. There is more work which can be done but which we do not happen to do which we could do if this were required.
H. H.: Well, may I take this in two parts. Firstly, with regard to the work which is being done, could you give me a concrete example of how this works in practice. Assume that X , the putative father, is charged and blood tests are taken, what is the way in which the thing is done?

Dr. H.: The three bloods are tested with the same sera, the bloods being of the same age and everything as comparable as possible. We then go through the various blood group systems. There are over a dozen fairly complicated blood group systems applying to red cells and it is only red cells that we are working but this is not all that can be worked. We first go through what we call the ABO system and if the mother and father have different types here the child may show these up. We then go through the Rhesus system in which we get half a dozen cracks. We have say four reagents we can use on $A B O$; half a dozen to eight or ten depending on how the cards fall for the Rhesus system. Then the MN system which has four factors available to us and with this we have rather better than a fifty per cent chance of excluding a man of English background from being falsely charged with fathering a child whose actual father had also an English background. It is real tiger country once you come to change racial groups.
H. H.: Well, you say that there are further tests which can be applied. Are they ever applied in practice in Australia to your knowledge in this type of work?

Dr. H.: Certainly not in South Australia, and I cannot speak for the other States. I do not think the blood transfusion services in the other States will touch the law and I do not know what is done outside their jurisdiction.
H. H.: Would there be publications, doctor, to which we could be referred if necessary to take this aspect of it further in case the Attorney so wished?

Dr. H.: The practice in other States?
H. H.: Yes.

Dr. H.: I do not know. I could quickly write around and ask.
H. H.: Well, I wasn't really wanting to put you to that trouble.
H. H.: I wondered whether from your correspondence, I assumed there was a certain amount of correspondence going on between States as seems to happen in most disciplines, I just wondered if you could tell us where we could get the information. I don't want to put you to the trouble. We could no doubt arrange for it to be done.
Dr. H.: Oh, how kind. I wouldn't even know whom to ask. All I can say is the people whom I know don't do it and I am allowed work in cohouts with the Courts with a strict understanding that it is never mentioned that I am in fact paid by the Red Cross Society.
H. H.: Well now, coming to the other aspect which you say is rather better than a $50 \%$ chance of the coming to a correct answer where they are both English or I take it by English it means European as well, or only English?
Dr. H.: Not necessarily, because all the statistics are based on the frequency of the blood groups in various ethnic groups and as you go through Europe you get pockets with enormously different frequencies. And so the statistics are different. One is still going to find the same difference. The statistics don't affect our work here in so much as you must take your background figures from the background group which is still fortunately predominately a British-English type descent and therefore this does not affect the maths but it can throw the individual case out.
H. H.: Is it likely to be much the same for some as against other European countries? I can't help from my own experience in divorce knowing that quite a number of these contests arise with migrants disproportionately to their present proportion in the community. For example, if the putative father was German would that be likely to follow the English percentage rules or not?

Dr. H.: Very closely, but if you come to, may I take the Lithuanians or Latvians, who would seem to have come from India very long ago and whose blood groups bear this out, you get different proportions. You will not make a mistake but the probability that this man is or is not the father becomes different. You will never say he is not if he is. Bear in mind that with rare exceptions this work can never establish that any man is the father of any child. At best it can only establish that he is not. Very occasionally you can prove fairly conclusively to the probability of one in a couple of million that he is, provided his brothers have got good alibis because this is the instance of this particular blood group in this community, or this combination of blood groups.
H. H.: And is there any age limit below which or above which this varies in relation to the child? In other words does the child's own blood typing alter at all during life or is it the same at any age group?

Dr. H.: No, very much. This is a problem which we solve by simply not testing for those systems in which the blood type is not expressed at birth. This would be a problem if someone came in and just worked through a handful of systems without knowing which ones were not applicable.
H. H.: Well, in drafting legislation, would it be of importance then to say that the tests should not be made under an age of say twelve months or some other period?

Dr. H.: That 1 imagine would certainly be safe. I don't think it would be necessary to go so far because not infrequently you can exclude a man from fathering on some system which is fairly developed at birth.
II. II.: Out of my ignorance no doubt, I understood that this was not invariable, and that there were some systems which you could not be certain of until some time after birth.

Dr. H.: You are absolutely right but no one knowing this field would use those systems.
H. H.: So that from a point of view of evidentiary fact if one was in a disputed case of this kind you would simply exclude those systems in those cases?

Dr. H.: Yes. You might then like to say that this is perhaps suggestive of a difference and you will have to wait $X$ years before you get the answer.
H. H.: Yes. If we are dealing, as I say we quite often are dealing, with non-English descended people, are there sufficient statistics available, if not here, elsewhere, to provide an adequate answer for either Southern European groups or Poles both of whom would be groups to my knowledge where this argument-by Southern Europeans I mean largely Italians and Greeks because there aren't very many Spanish migrants here, or on the other hand Poles.

Dr. H.: Yes, these proportionate percentages of various blood factors are all obtainable some of them are quite different too and this would be readily available.
H. H.: In the case of Italians would it matter if the man was from North Italy or from Southern Italy or Sicily?

Dr. H.: The percentage presence of various factors is quite different from North and South. Then you take the Southern Italian figures and you drop them into Country Durham up in the north of England, of course that was a County Palatinate for so long, and there you find the Italian groups again. But I don't think that is a practical problem. I think it would only come in if you were deciding what were the odds and they were borderline. You would know whether to push them as being more probable or less.
H. $H$.: The odds may be different and this is one of our problems between the answer you are giving if you are trying to compel a man to contribute to the child's support and cases where whilst he does not admit or deny the issue is raised aliunde and this is not infrequently
the case. Do you have other fairly substantial evidence which may be of some importance in say workmen's compensation or claims of other kinds in which illegitimates do have rights? Incidentally do such claims come to you for work or is it only in cases where a man is being charged with non-support of an illegitimate child?
Dr. H.: I have never struck the Workmen's Compensation Act to do with this. No nearly all of the work that I personally do comes in from doctors on the old boy basis, who say "Look there is trouble in this family. Can you settle it down". All the work, which is quite a lot, which comes from the Children's Welfare Department, comes straight through into our reference laboratories where it is done by the Senior staff there and goes straight out but 1 have not struck the Workmen's Compensation Act.
H. H.: This is perhaps a difficult one, Doctor. If you were yourself drafting legislation which had to deal with the ascertainment of paternity, are there any caveats that you would put in it, any special protections that you would think it necessary to write into the use of blood grouping when used by legislation?

Dr. H.: Well from my years in the Courts the thing that seems most important to me is that you get a witness who is secure enough to say "I don't know" instead of always pretending to know. So I think in this respect you would go towards the grey hairs who have given up trying to be clever. I would think that for this State if you wanted this work done to my satisfaction wou would have to confine it to senior people working in the blood group reference laboratory in the Red Cross Blood Bank because to my knowledge there is no one else working in South Australia who has had sufficient use of these reagents to give the answers. I don't think there is any one.

Mr. Cox, Q.C., S-G.: Dr. Hay, I am not quite clear on the relation between the odds you spoke of, something better than $50 \%$, and the tests. The only result that you can reach with tolerable certainty, I gather, for practical certainty, is that a suspect is not the father of the child in question.

Dr. H.: Yes.
Mr. C.: And you achieve that with certainty for practical purposes anyway?

Dr. H.: Yes.
Mr. C.: There is no question of odds in that exercise. The odds come in where the question is: is he possibly in fact the father of the child?

Dr. H.: Yes. The odds that he could be the father of the child.
Mr. C.: Well, that he could be, you can always establish for certainty.
H. H.: That he could not be.

Dr. H.: No, not us. We can only say that he is not.
Mr. C: Well, let's put it not that he is. I am distinguishing "is" from "could be". That he could be the father. You can always establish quite certainly I presume. That he is one of a large number who may be. You establish that general proposition. When you come to the
next question "Well, in fact is he", do I take it that there are cases in which you can establish that with a likelihood of fifty more per cent or so of accuracy?
Dr. H.: No, this figure which I give you of $50+\%$-for us $60 \%$ if we go all the way and do more tests which we don't usually do-is the probability that a man who is falsely accused of paternity will be established not to be so. When you want probabilities from the man being the father you then have to have your background figures for the incidence of these blood groups in the racial groups.

Suppose that we have a group A child and a group O mother. If you take a Southern Italian who is more likely to be a strong group A than anything else and if perhaps there is another man who is a Swede or a Scot or something like that, it is much less probable that the Northern man with his O group is going to be the father than the Southern man with the group A. You haven't proven anything but your probabilities are going to differ.

Mr. C.: Well, that is simply to say isn't it that any group O man may be the father of the child?

Dr. H.: Yes.
Mr. C.: And a Swede is more likely statistically to be group A than an Italian man?

Dr. $H$.: Group 0 .
Mr. C.: Yes, group O, I'm sorry.
Dr.H.: This sort of maths doesn't come into this simple thing that we are discussing now in one system, but once you start compounding systems and you are reporting on say twenty blood factors, then your odds (a mathematical answer) is the only one with meaning.

Mr. C.: I am not very good on scientific things. What I want to get clear is where we are dealing with certainty and where we are dealing with probabilities. We are dealing with certainties when we are excluding a particular person whose blood you have along with the blood of the child.

Dr. H.: Yes.
Mr. C.: You need the mother's blood?
Dr. H.: Definitely.
Mr. C.: So that when you have the blood of the mother and the child you are dealing with certainties when you exclude a suspect whose blood you have got. When the suspect shows up as a person who may have been the father of the child then you get into probabilities of the order of $50 \%$ or more on your present tests when you come to determine whether in fact he was. Is that it?

Dr.H.: No, the $50 \%$ is applying only to the probability that you will be able to exclude him if he is falsely charged. When you come to probabilities of man having fathered a particular child, you can go out into the one in five hundred thousand, a million, two million, five million. These to me become real probabilities so it is possible that this sort of information can be helpful but it all depends on the luck of the toss and the particular blood factors the man happens to have-if he has uncommon ones, or if he has common ones.

Mr. C.: If it is common he is pretty safe?
Dr. H.: Yes.
Mr. C.: You mentioned other tests that you don't use here, and they can raise the probability of the order of $50 \%$ to $60 \%$ ?

Dr. H.: Yes, if you run the whole gamut you can get up, it is claimed, to about $80 \%$. Now this involves a tremendous amount of work which has a high chance of going wrong but anyone who is doing this will control it and quite often he will simply say "I'm sorry, no answer; the work wasn't clean enough". But you come out then to describe all of the groups of blood serum. We in the blood bank confine ourselves very much to the groups of cells. Now when you are coming down to the biochemistry of your proteins in your blood this is a good field. I don't personally think it is good enough for this sort of work yet because not enough is known about it. When we started off with red cells it was thought they were fairly simple. We thought we knew what we had and the more we worked with them the more we realized we didn't know what we had and this is why there are a number of red cells systems which we drop out because there are some which will mask the expression of others. When you come to the serum groups this type of fact is known about a number of them. There is no evidence one way or the other which has come to me about some of them. I think it probably will come up. I don't want to decry them absolutely. I think relatively speaking they are still tiger country.

Mr. C.: You wouldn't recommend pushing the current testing factors in South Australia?

Dr. H.: I think this depends on the person. If I was to do this I would take about a year off just running all of these tests to see how frequently, feeding in known factors, I got different answers because I think this will happen with any novice but we might be fortunate--the man might come to this State who has experience in these things and he will have access to good reagents and then yes, this is a different story. I am sure this will come and if you want literature on this most of it is coming from Germany where so many people are trying to prove that they are bastards so that they can succeed to property and those who do the tests are mostly millionaires now.

Mr. Keeler: There are two problems, just to check that I do have them correct. If you come up with a result that says this person could not be a father in ninety-nine per cent of the cases that would be right, but there are odd cases where it would not be right and your chances of coming up with that answer are better than $50 / 50$ ?
Dr. H.: Yes, it should be right in $99.99 \%$ of cases.
Mr. K: You said, I think, that you do have sufficient evidence of the relative frequency of various things, like ABO groups and RH groups and so on, to be able to produce a certificate which shows that a person has this particular combination of factors. You may have a combination of very rare groups which you could say the probability that he is the father is quite strong. You do have the statistics?

Dr. H.: Yes. One would do the individual probability each time. We have the background information to do it.

Mr. K.: In Britain and New Zealand there is legislation which covers this sort of area and the basis of it is that where the evidence is not exclusionary the serum laboratory is asked to furnish a certificate saying that if the evidence is not exclusionary could you please give us some idea of how useful these certainties are and the Court can then act on that certificate. You have the statistics to be able to do this?

Dr.H.: Oh, yes. They are going to be exactly the same ones.
Mr. K.: The other point is a practical one. You said that any where this new legislation comes in-in fact in Germany people want to prove who their father is in order to inherit-if we were to introduce legislation which would produce a similar sociological factor and if at the same time we were to give a Court power to direct a blood test rather than make it voluntary as they are at the moment, do you have the resources to cope with any extra demand?

Dr. H.: Well, this is always relative and if you snowed us under we would be in trouble. You wouldn't get a person doing this type of work without at least ten years' solid going experience. There are a number of men working in the blood group reference laboratory who would do this very well (only we would prefer someone else) but once you start to enormously increase their rate of work we run out of reagents. This you might say is our problem, and reagents are gained by barter-you just can't go to the shop and buy them.

Mr. K.: It is part of the problem which we want to concern ourselves since you are the only body in the State which does these tests.

Dr. H.: I can't imagine this getting worse than being a darned nuisance. I think we can cope.

Mr. K.: If Courts direct tests to be made somebody has to pay for them. What is the practice in this respect?

Dr. H.: Well, the present practice is that is something is going to be done for nothing, I do it, and if it can be done for a fee someone else does it and the fee is $\$ 50$. I know they don't enforce this. They don't insist on having to get it. They ask the solicitor to get it if he can.

Mr. K.: How great is the value of making people pay $\$ 50$ who have a $50 \%$ chance from excluding themselves from paternity for a certificate which may or may not do that?

Dr. H.: Well, I understand from the men who do it that they asked Children's Welfare to approach it this way and they have cut down the number of tests they are doing at the moment from three a week to one a week where the chap is told it will cost him $\$ 50$ if the social workers consider he has it. If they don't consider he has it, this is not even asked of him. If you wanted these other serum factors you are up for $\$ 200$ if $I$ have to do it.

Mr. K.: We can scarcely ask you to increase the work load just because we want to bring a piece of legislation.

Dr. H.: We are not as unco-operative as all that. If someone were going to be able to use the information we would be happy to tool up and provide it. It is going to take us quite a while to satisfy ourselves that this information is worth having. This is our technical problem but we would do it. Bear in mind the State pays $60 \%$ of our running costs and the Commonwealth $30 \%$.

Mr. K.: I take it this would increase your chances of getting extra results to $60 \%$ and that after any such work, the certificate as evidence would be $8 \%$ more useful.
Dr. H.: Well, it would go up from $50-60 \%$ to $70-80 \%$. There is not much return for an enormous amount more work but if you are the man and you want to be excluded I guess it is worth it.
Mr. Hackett-Jones: Doctor, you mentioned that the blood grouping of people have different characteristics. When you are attempting to establish that a person is the father of a child rather than excluding the possibility that he is the father does this mean that you have to take evidence or have to discover what his ethnic background is or is that already apparent in his blood?
Dr. H.: No, if you are wanting to establish categorically that he is, you simply find every factor you can in his blood and then look at which ones you know he must transmit and here again it is the luck of the toss because most of these factors are paired and there are two alternatives, but a reasonable percentage of people have two of the same and you are looking for these where the factors are paired and they have both factors the same and they have to pass this factor on and the child lacks it. So you say that he cannot belong to that man. There again there are systems where this does not work so we don't use those systems. The man and child must share a rare character to make paternity highly probable.

Mr. H.-J.: So you don't look beyond the particular subjects: you don't look to their ethnic background?

Dr. H.: No, this is only if you want to show what the odds that he could be the father.

Mr. Power: When using the word "systems" are you referring to a method of testing or to something else?

Dr. H.: No. By "system" I mean all of the factors which together make up one particular blood group. In simplest form ABO . It may be $\mathrm{A}, \mathrm{B}, \mathrm{AB}$ or O . Rhesus could be a tremendous variation on six factors.
Mr. Cox: We are contemplating the wisdom of making blood tests for paternity reasons compulsory or at least giving somebody the opportunity of having blood taken and perhaps drawing their own conclusion. Have you come across any cases with people who have what appears to be a genuine conscientious objection to have a blood test for paternity-that is disengaged from apprehensions of guilt?

Dr. H.: This is not mandatory is it?
Mr. C.: No, it is not, but there are provisions for it I think with the opportunity for adverse conclusion.

Dr. H.: I have no personal experience with this but I read many articles in the British Medical Journals about the difference between Scottish and English law: the question of whether or not you may take the blood from the child is hotly debated but I cannot recall anyone bothering particularly about the adults.

The Chairman thanked Dr. Hay in the name of the Committee and Dr. Hay retired.

