Admissibility of expert evidence: Has the basis rule survived s 79 of the Evidence Act?

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Introduction

1. The paper explores the question of whether the common law rule, which requires a party tendering expert evidence to identify the facts upon which the opinion is based and to prove such facts by admissible evidence, remains a requirement of admissibility under s 79 of the Uniform Evidence Legislation. This rule is called the “basis rule”.

2. In *Makita (Australia) Pty Ltd v Sprowles*, Heydon JA, as His Honour then was, held that under s 79 of the Evidence Act 1995 (NSW), the basis rule remained a rule of admissibility. In effect, Heydon JA held that unless a party is required to prove the facts upon which an expert’s opinion is based, it was not possible for a court to decide whether the opinion was based on the expert’s specialised knowledge.

3. Heydon JA’s interpretation of s 79 in *Makita* is in conflict with the view of the Australian Law Reform Commission (ALRC), which conducted the inquiry into the law of evidence that resulted in the Uniform Evidence Legislation. According to the ALRC the basis rule did not form part of the common law and should not be included as a rule of admissibility under the Uniform Evidence Legislation. If a party fails to prove the facts underlying an expert’s opinion, such failure goes to the probative weight of the evidence, not its admissibility.

4. Although Heydon JA’s view received support in those state jurisdictions that adopted the Uniform Evidence Legislation, the Federal Court followed the opposite position as expressed by the ALRC in holding that the basis rule was not a requirement of admissibility under s 79.

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1 (2001) 52 NSWLR 705.
5. The High Court’s decision in Dasreef Pty Ltd v Hawchar\(^3\) did not expressly resolve the difference of opinion between the state courts and the Federal Court; however, the majority did provide some support for Heydon JA’s view in Makita. In a strong dissenting judgment, Heydon J, now sitting as a judge of the High Court, confirmed and expanded on the views he expressed in Makita.

6. This paper will review the some of relevant authorities for and against the view that the basis rule remains a rule of admissibility under s 79, analyse the decisions in Makita and Dasreef and review how judges in subsequent cases have interpreted the decision by the majority in Dasreef.

**What is expert evidence?**

7. Expert evidence is a species of opinion evidence. A common definition of the term “opinion” is “an inference drawn or to be drawn from observed and communicable data”.\(^4\) Generally speaking, evidence of someone’s opinion, as opposed to facts directly observed, is inadmissible.\(^5\) The law therefore draws a distinction between facts and inferences based on facts, although this distinction is not always easy to draw.\(^6\) It is the business of witnesses to state facts, whereas it is the function of the judge or jury to draw inferences based on the facts put in evidence.\(^7\)

8. Expert evidence is a reasoned inference or set of inferences (the opinion) drawn by someone with specialised knowledge from facts that the expert has either observed or assumed. The opinion must be

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\(^3\) (2011) 277 ALR 611.

\(^4\) Dasreef (2011) 277 ALR 611 per Heydon J at [53] quoting from Allstate Life Insurance Co v Australia and New Zealand Banking Group Ltd (No 5) (1996) 64 FCR 73 at 75

\(^5\) s 76 of the Evidence Act 2008 (Vic).

\(^6\) Risk v Northern Territory [2006] FCA 404 at [472]-[473].

\(^7\) JD Heydon, Cross on Evidence (Butterworths, 7th ed, 2004) at 923.
based, at least substantially, on that person’s specialised knowledge.\(^8\)
Expert evidence is admissible as an exception to the general rule that
evidence of an opinion is inadmissible.\(^9\)

9. For example, a qualified medical doctor may, as an expert, express his
or her opinion regarding the probable cause of an illness.\(^10\)

**Admissibility of expert evidence under the common law**

10. For centuries now, English courts have allowed the opinion of expert
witnesses as admissible evidence. In 1782, in the matter of *Folkes v Chadd*,\(^11\) the opinion of Mr Smeaton, an eminent engineer, was called
as evidence regarding whether an embankment was causing the silting
of a harbour. His evidence was objected to on the basis that it did not
relate to facts but to opinion. Lord Mansfield held that the subject of Mr
Smeaton’s evidence was a matter of science and stated: “we are of the
opinion that his judgment, formed on facts, was very proper evidence”.

11. Under the common law, expert evidence, like any other evidence, must
be relevant to be admissible.\(^12\)

12. The basis rule, which is considered part of the common law, is a rule of
admissibility applicable to expert evidence. According to this rule, the
opinion of an expert is admissible only where the premises, that is to
say the facts, upon which the opinion is based are expressly stated.\(^13\)
Not only must such facts be stated; they must be proved by admissible
evidence.\(^14\) Such evidence can come from either the expert, giving
direct evidence about facts he or she observed, or, if the opinion is

\(^9\) s 79 of the *Evidence Act* 2008 (Vic).
\(^11\) (1782) 3 ER 589 at 590 (KB)
based on assumed facts, from other admissible evidence. An expert opinion based only partly on inadmissible material that can be readily ascertained and discarded is still admissible but may be of reduced weight.

13. Another rule that is relevant to the admissibility of expert evidence, which is a common law exception to the hearsay rule, is that an expert is not required to prove the sources of the expert's specialised knowledge. Although the materials and sources the expert witness consulted in order to formulate the opinion should be disclosed, the expert is not required to prove the statements in textbooks, academic papers or informal discussions with other experts in the field upon which he or she relied.

Admissibility of expert evidence under the Uniform Evidence Legislation

14. As is the case under the common law, expert evidence is admissible under the Uniform Evidence Legislation only if it is relevant. Relevance is defined as follows:

The evidence that is relevant in a proceeding is evidence that, if it were accepted, could rationally affect (directly or indirectly) the assessment of the probability of the existence of a fact in issue in the proceeding.

15. Section 76(1) provides that:

Evidence of an opinion is not admissible to prove the existence of a fact about the existence of which the opinion was expressed.

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15 JD Heydon, Cross on Evidence (Butterworths, 7th ed, 2004) at 926.
16 Ibid at 937; Hancock v East Coast Timber Products Pty Ltd [2011] NSWCA 11 at [88].
17 Ibid at 1169 to 1170. Macquarie International Heath Clinic Pty Ltd v Sydney Local Health District (No 5) [2014] NSWSC 1105 at [12]-[13].
18 s 56 of the Evidence Act 2008 (Vic).
19 s 51(1) of the Evidence Act 2008 (Vic).
16. Section 79(1) provides an exception to the rule that evidence of an opinion is not admissible:

If a person has specialised knowledge based on the person’s training, study or experience, the opinion rule does not apply to evidence of an opinion of that person that is wholly or substantially based on that knowledge.

17. Section 80 provides:

Evidence of an opinion is not inadmissible only because it is about
(a) a fact in issue or an ultimate issue; or
(b) a matter of common knowledge.

18. Expert evidence that satisfies the requirements of s 79 may nevertheless be excluded at the trial judge’s discretion under s 135 or s 136 of the Uniform Evidence Legislation. Section 135 provides:

The court may refuse to admit evidence if its probative value is substantially outweighed by the danger that the evidence might –
(a) be unfairly prejudicial to a party; or
(b) be misleading or confusing; or
(c) cause or result in undue waste of time.

19. Section 136 provides:

The court may limit the use to be made of evidence if there is a danger that a particular use of the evidence might –
(a) be unfairly prejudicial to a party; or
(b) be misleading or confusing.

20. Another section of the Uniform Evidence Legislation that is not often referred to, but which may apply to the admission of expert evidence, is s 190(3), which provides:

In a civil proceeding, the court may order that any one or more of the provisions in subsection (1) [which includes s 79] do not apply in relation to evidence if –
(a) the matter to which the evidence relates is not genuinely in dispute; or
(b) the application of those provisions would cause or involve unnecessary expense or delay.

21. It should be noted that the Uniform Evidence Legislation does not refer to the basis rule. The rule is neither referred to as a requirement of admissibility nor expressly abolished.

22. As noted in the introduction, the ALRC was of the view that the basis rule did not form part of the common law and expressed an intention to exclude the rule as a requirement of admissibility in the Uniform Evidence Legislation. In its interim Report No 26, the ALRC stated:

It has been implied in some cases and asserted in some academic writing that there is a rule of evidence that for expert opinion testimony to be admissible it must have as its basis admitted evidence. The better view is that there is no such rule. Were it to exist, it would not be possible to have opinion evidence which had as a significant component the opinions or the statements of others. This would preclude the tendering of evidence whose value is dependent upon material not before the court and, therefore, difficult for it to assess. While this would have its advantages, it would fail in its inflexibility to take account of the normal means by which experts generally form their opinions—by means of reports of technicians and assistants, consultation with colleagues and reliance upon a host of extrinsic material and information that it would be an endless and unfruitful task with which to burden the courts. It is proposed to refrain from including a basis rule in the legislation, thus allowing opinion evidence whose basis is not proved by admitted evidence prima facie to be brought before the court. Under these circumstances the weight to be accorded to it will be left to be determined by the tribunal of fact.\(^{20}\)

(footnotes omitted)

23. The ALRC favoured the view that a failure to prove the facts underlying an expert’s opinion does not render the evidence inadmissible, but may affect its probative weight, and that such evidence will be able to be excluded pursuant to the discretion in s 135. As will be seen below, courts have not been consistent in their interpretation of s 79 in light of the ALRC’s statement.

Judgment by the NSW Court of Appeal in *Makita*

24. Ms Sprowles, an employee of Makita, sued her employer for negligence after she fell down stairs at her workplace. She was awarded substantial damages. Sprowles relied on expert evidence that the tread of the stairs was slippery. The trial judge accepted this evidence. The employer successfully appealed on, amongst others, the grounds that the trial judge erred in accepting the expert evidence. It should be noted that because Makita did not object to the admissibility of the expert evidence at trial, the only issue on appeal was the weight of such evidence.  

25. *Makita* was decided pursuant to s 79 of the Evidence Act 1995 (NSW). In his separate but concurring judgment, Heydon JA, conducted a careful review of the case law regarding the admissibility of expert evidence. According to Heydon JA, a prime duty of experts in giving opinion evidence is to furnish the trier of fact with criteria enabling evaluation of the validity of the expert’s conclusions. Heydon JA cited as authority the Scottish case of *Davie v Lord Provost, Magistrate and Councillors of the City of Edinburgh*. In *Davie*, Lord President Cooper stated:

> [T]he bare *ipse dixit* of a scientist, however eminent, upon the issue in controversy, will normally carry little weight, for it cannot be tested by cross-examination nor independently appraised, and the parties have invoked the decision of a judicial tribunal and not an oracular pronouncement by an expert.

26. One finds the same principle in a dictum by the High Court in *Ramsay v Watson*.

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21 *Makita* (2001) 52 NSWLR 705 at [86].
22 1953 SC 34 at 39-40.
That some medical witness should go into the box and say only that in his opinion something is more probable than not does not conclude the case. A qualified medical practitioner may, as an expert, express his opinion as to the nature and cause, or probable cause, of an ailment. But it is for the jury to weigh and determine the probabilities. In doing so they may be assisted by the medical evidence. But they are not simply to transfer their task to the witnesses. They must ask themselves “Are we on the whole of the evidence satisfied on a balance of probabilities of the fact?”

27. At paragraph 85 of the judgement, Heydon JA sets out what he regards as the test of admissibility under s 79:

[If evidence tendered as expert opinion evidence is to be admissible it must be agreed or demonstrated that there is a field of “specialised knowledge”; there must be an identified aspect of that field in which the witness demonstrates that by reason of specialised training, study or experience, the witness has become an expert; the opinion proffered must be “wholly or substantially based on the witness’s expert knowledge”; so far as the opinion is based on facts “observed” by the expert, they must be identified and admissibly proved by the expert, and so far as the opinion is based on “assumed” or “accepted” facts, they must be identified and proved in some other way; it must be established that the facts on which the opinion is based form a proper foundation for it; and the opinion of an expert requires demonstration of examination of the scientific or other intellectual basis of the conclusions reached: that is, the expert’s evidence must explain how the field of “specialised knowledge” in which the witness is expert by reason of “training study or experience”, and on which the opinion is “wholly or substantially based”, applies to the facts assumed or observed so as to produce the opinion propounded. If all these matters are not made explicit, it is not possible to be sure whether the opinion is based wholly or substantially on the expert’s specialised knowledge.]

(emphasis added)

28. In his judgement, Heydon JA did not refer to the ALRC’s view that the basis rule did not form part of the common law or to its recommendation to refrain from putting a basis rule in the Uniform Evidence Legislation. It is clear, however, that in Justice Heydon’s view, a party tendering an expert’s opinion as evidence can comply with the provisions of s 79 only if that party identifies and proves the facts upon which the opinion is based. This must be done to establish a connection between the ultimate opinion (which has
as its foundation certain facts, observed or assumed) and the expert’s specialised knowledge. It is on this point that Justice Heydon’s view diverges from that of the ALRC.

Acceptance of Heydon JA’s view in other Australian jurisdictions

29. State courts have generally embraced Heydon JA’s approach in *Makita*; however, the Federal Court did not.  

30. In *Sydneywide Distributors v Red Bull Australia*, the Full Federal Court held that the common law rule that the admissibility of expert opinion evidence depends on proper disclosure of the factual basis of the opinion is not reflected in the Evidence Act 1995 (Cth). Branson J stated that Heydon JA’s approach in *Makita* should be understood as a “counsel of perfection”. She referred to the ALRC recommendation against including the basis rule as a precondition to the admissibility of expert opinion. Interestingly, though, Branson J expressed the view that it is the requirement of relevance and not s 79 that makes proof of the facts on which the opinion is based necessary.

31. Weinberg and Dowsett JJ, in a joint judgement, held that the various qualities described by Heydon JA in *Makita* should be assessed in the course of determining the weight to be given to the evidence and not its admissibility.

32. In *Sydneywide*, as in *Makita*, no objection was taken at trial to the admissibility of the expert evidence. Therefore, strictly speaking, the

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27 Branson, Weinberg and Dowsett JJ.


29 At [14].

30 At [87].
only question on appeal was what weight, if any, should be given to the evidence.

33. *Sydneywide* has been followed in a number of Federal Court decisions,\(^{31}\) including French J, as His Honour then was, in *Sampi v Western Australia* [2005] FCA 777, where he held that the failure to establish the factual basis of an anthropologist's opinion with admissible evidence was a matter of weight.\(^{32}\)

34. There are, however, some Full Federal Court judgements that appear to qualify the decision in *Sydneywide*. In *BHP Billition Iron Ore v National Competition Council*,\(^{33}\) Greenwood J stated with respect to s 79 that:

> The normal role of an expert is to give an opinion based on clearly identified facts (*Makita (Australia) Pty Ltd v Sprowles* (2001) 52 NSWLR 705), almost invariably assumed to be the facts, on the footing that those facts provide a proper foundation for an opinion within the demonstrated discipline or field of specialised knowledge of the expert witness. Although s 79 of the Evidence Act seems to operate on the footing that the opinion of a person wholly or substantially based on specialised knowledge is not precluded by s 76(1) in the absence of proven foundation facts (*Sydneywide Distributors Pty Ltd v Red Bull Australia Pty Ltd* (2002) 55 IPR 354 [10]; *Neowarra v Western Australia (No 1)* (2003) 134 FCR 208), little or no weight will be given to such an opinion (*Ramsay v Watson* (1961) 108 CLR 642), although the central point may simply be the question of admissibility, not weight (*HG v R* (1999) 197 CLR 414 at [39]–[44]; *Trade Practices Commission v Arnott’s Ltd (No 5)* (1990) 21 FCR 324 at 327–330). That question does not arise here.

35. Greenwood J’s remarks are clearly obiter, and if it was His Honour’s intention to depart from the decision in *Sydneywide*, one might expect him to expressly state such an intention. However, the remarks do

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\(^{33}\)*(2007) 162 FCR 234 at [185].
support the argument that in the absence of proof of the foundational facts of an expert's opinion, the better view is that the evidence should not be admitted at all. In *Eric Preston Pty Ltd v Euroz Securities Ltd*,\(^\text{34}\) in a joint judgement by Jacobson, Foster and Barker JJ, the following was said:

The proposition that an expert’s opinion based upon certain assumptions which are not ultimately proved in evidence is irrelevant is a fundamental principle of the law: *Ramsay v Watson* (1961) 108 CLR 642; *Paric v John Holland (Constructions) Pty Ltd* (1985) 62 ALR 85.

His Honour’s statement that the opinions were “irrelevant”, or were “to be accorded no weight” was no more than a statement of his conclusion that he could not take Mr McKimm’s evidence into account in light of his finding as to the terms of the retainer.

36. The view expressed by the Court in *Eric Preston* is consistent with Branson J’s statement in *Sydneywide* that failure to prove the factual basis of an expert’s opinion will render the evidence irrelevant and therefore inadmissible pursuant to s 51 of the Uniform Evidence Legislation.

**High Court’s judgment in Dasreef**

37. The respondent, Mr Hawchar, commenced proceedings against Dasreef in the Dust Diseases Tribunal, claiming damages for personal injury, after he was diagnosed with scleroderma in 2004 and with silicosis in 2006. Mr Hawchar worked for Dasreef as a labourer and then as a stonemason between 1999 and 2005. His central allegation was that whilst working for Dasreef, he had been exposed to unsafe levels of silica dust. At the time Mr Hawchar worked for Dasreef, there was an applicable standard prescribing that the maximum permitted exposure to silica dust was a time-weighted average of 0.2mg/m\(^3\) of air over a 40-hour working week.

\(^{34}\) (2011) 274 ALR 705 at [171]-[172].
38. At trial, Mr Hawchar relied on the evidence of an expert, Dr Basden, a chartered chemist, chartered professional engineer and retired senior lecturer at the University of New South Wales. Dr Basden was retained to give evidence regarding the procedures an employer could take to reduce the risk of injury due to exposure to silica dust. At trial his evidence was objected to.

39. Dr Basden identified two procedures that could have been used, but were not, to reduce Mr Hawchar’s exposure to silica dust: wet cutting, in which a jet of water is applied to the junction between the cutting wheel and the stone being cut, and the provision of an exhaust hood close to the source of the dust. He also expressed the view that the breathing masks provided to Mr Hawchar were inadequate. In his report Dr Basden estimated that the dust concentrations generated in Mr Hawchar’s breathing zone when he was operating the cutting wheel were in the order of 1,000 or more times the maximum permitted exposure of the time-weighted average of 0.2mg/m³.

40. During cross-examination, Dr Basden admitted that he could not express a numerical opinion about Mr Hawchar’s exposure to respirable silica and the he could not express an opinion about the time-weighted average of Mr Hawchar’s exposure to silica. He gave no evidence that he had measured directly, or had sought to calculate inferentially, the amount of respirable dust to which Mr Hawchar was exposed. According to Dr Basden, the statement in his report that Mr Hawchar was exposed to dust concentrations at least 1,000 times the permissible limit provided nothing more than a “ballpark” figure based on an estimate.

41. Notwithstanding these concessions by Dr Basden, the trial judge sought to calculate the levels of silica dust to which Mr Hawchar had
been exposed using Dr Dasden’s estimate, in support of a finding that such levels exceeded the prescribed maximum level of exposure.

42. The central question on appeal was whether the trial judge erred in admitting Dr Baden’s evidence regarding the numerical level of respirable silica dust in Mr Hawchar’s breathing zone whilst he worked for Dasreef.

Majority judgment

43. In a joint judgment, the majority\textsuperscript{35} held that Dr Basden’s evidence was not admissible for the purpose of calculating the level of respirable dust to which Mr Hawchar was exposed.

44. The majority stated that in considering the operation of s 79, it is necessary to first identify why the evidence is relevant. That requires identification of the fact that the party tendering the evidence asserts the opinion assists in proving.\textsuperscript{36} To be admissible under s 79(1) the expert opinion must satisfy two criteria: first, the witness who gives the evidence must have specialised knowledge based on his or her training, study or experience; second, the opinion must be wholly or substantially based on that knowledge.\textsuperscript{37}

45. The majority expressed doubt that Dr Basden even sought to express an opinion about the numerical or quantitative level of respirable silica to which Mr Hawchar had been exposed. To render such evidence admissible, it would have been necessary to demonstrate first that Dr Basden had specialised knowledge based on his training, study or experience that enabled him to measure or estimate the amount of respirable silica to which a worker in Mr Hawchar’s circumstances would be exposed, and second that his opinion regarding the level of

\textsuperscript{35} French CJ, Gummow, Hayne, Crennan, Kiefel and Bell JJ.
\textsuperscript{36} At [31].
\textsuperscript{37} At [32].
exposure was wholly or substantially based on that knowledge.\textsuperscript{38} Dr Basden gave evidence of his training, study and experience; he did not, however, assert that his training, study or experience permitted him to provide anything other than a “ballpark” estimate of the amount of silica dust to which Mr Hawchar was exposed. He gave no evidence that he had measured directly, or sought to calculate inferentially, this amount.

46. In the circumstances, there was no footing on which the trial judge could conclude that a numerical or quantitative opinion expressed by Dr Basden was wholly or substantially based on specialised knowledge.

47. With respect to the basis rule, the majority stated the following:

[T]his analysis does not seek to introduce what has been called “the basis rule”: a rule by which opinion evidence is to be excluded unless the factual bases upon which the opinion is proffered are established by other evidence. Whether that rule formed part of the common law of evidence need not be examined. It may be accepted that the Law Reform Commission’s interim report on evidence denied the existence of such a common law rule and expressed the intention to refrain from including a basis rule in the legislation the commission proposed and which was later enacted as the Evidence Act 1995 (Cth) and the Evidence Act 1995 (NSW). What has been called the basis rule is a rule directed to the facts of the particular case about which an expert is asked to proffer an opinion and the facts upon which the expert relies to form the opinion expressed. The point which is now made is a point about connecting the opinion expressed by a witness with the witness’s specialised knowledge based on training, study or experience.\textsuperscript{39}

(footnotes omitted)

48. The majority did refer to Heydon JA’s judgement in \textit{Makita} in the following passage:

It should be unnecessary, but it is none the less important, to emphasise that what was said by Gleeson CJ in \textit{HG} (and later by Heydon JA in the Court of Appeal in \textit{Makita (Australia) Pty Ltd v

\textsuperscript{38} At [35].

\textsuperscript{39} At [41].
Sprowles) is to be read with one basic proposition at the forefront of consideration. The admissibility of opinion evidence is to be determined by application of the requirements of the Evidence Act rather than by any attempt to parse and analyse particular statements in decided cases divorced from the context in which those statements were made. Accepting that to be so, it remains useful to record that it is ordinarily the case, as Heydon JA said in Makita, that “the expert’s evidence must explain how the field of “specialised knowledge” in which the witness is expert by reason of “training, study or experience”, and on which the opinion is “wholly or substantially based”, applies to the facts assumed or observed so as to produce the opinion propounded”. The way in which s 79(1) is drafted necessarily makes the description of these requirements very long. But that is not to say that the requirements cannot be met in many, perhaps most, cases very quickly and easily. That a specialist medical practitioner expressing a diagnostic opinion in his or her relevant field of specialisation is applying “specialised knowledge” based on his or her “training, study or experience”, being an opinion “wholly or substantially based” on that “specialised knowledge”, will require little explicit articulation or amplification once the witness has described his or her qualifications and experience, and has identified the subject matter about which the opinion is proffered. But that was not this case.40

(footnotes omitted)

49. Although the majority held that that Dr Dasden’s evidence was inadmissible for the purpose in which the trial judge used it, they nevertheless dismissed the appeal on the basis of other evidence established that Mr Hawchar’s illness was caused by exposure to silica dust whilst employed by Dasreef.41

Heydon J’s dissent

50. In a dissenting judgment that has been described by Dixon J as an “erudite and practical analysis”,42 Heydon J concurred with the majority that Dr Basden’s evidence was inadmissible, but was of the view that the matter should be remitted to the Court of Appeal.

40 At [37] to [38].
41 At [49].
42 Dura (Aust) Constructions Pty Ltd v Hue Boutique Living Pty Ltd (No 3) [2012] VSC 99 at [97].
51. Heydon J regarded the common law position as relevant to the construction of s 79. According to Heydon J, the basis rule under the common law consisted of three elements: first, the requirement that the expert disclose the facts and assumptions on which the expert’s opinion was founded—the “assumption identification” rule; second, the requirement that the facts and assumptions stated be proved before the expert opinion was admissible—the “proof of assumption” rule; and third, the requirement that there be a statement of reasoning showing how the facts and assumptions related to the opinion, so as to reveal that the opinion was based on the expert’s expertise—the “statement of reasoning” rule. In Heydon J’s view, there was no doubt that each of these rules formed part of the common law.

52. Heydon J rejected the respondent’s argument that none of the three elements of the basis rule formed part of s 79. He analysed each element and concluded that they are interrelated and should be implied in the requirements of s 79. According to Heydon J, there is nothing in s 79 that suggests that the basis rule under the common law has been abolished. Rather, the ordinary meaning of s 79, taking into account its language, its context in the Act, the function of the Act (which is the efficient and rational regulation of trials from an evidentiary point of view) and the unreasonable results that a contrary construction would produce, should be construed as not abolishing the basis rule. The unreasonable results referred to by Heydon J included the following: a court’s inability to assess whether the opinion corresponds with the facts that the court finds at the end of the trial; the court’s inability to assess whether the opinion is one wholly or substantially based on the expert’s knowledge; and the unacceptable difficulties for the cross-examiner, who should not have to tease out in cross-examination all the circumstances the expert witness had in mind in arriving at his or her opinion. According to Heydon J, the ALRC was wrong to doubt the

43 At [63]
44 At [64], [66] and [91].
45 At [130].
existence of the basis rule at common law. A decision not to recommend to the legislature to enact a rule, which the commission thought, did not exist at common law, does not demonstrate an intention on the part of the legislature to abolish a rule that does in fact exist at common law.\textsuperscript{46}

53. In conclusion, Heydon J held as follows\textsuperscript{47}:

[Dr Basden] had some training, study or experience which led him to have some specialised knowledge. He did not, however, explain what elements of his training, study or experience led him to possess specialised knowledge of a kind which enabled him to reach the conclusion that a cloud of silica dust liberated when cutting or grinding stone contained 200mg/m\textsuperscript{3} of respirable silica, or even as much as 1g/m\textsuperscript{3}. He gave evidence of only one casual observation of an angle grinder in operation. He gave no evidence of ever having measured respirable silica dust. He gave no evidence of having measured dust concentrations, or the respirable fractions of those concentrations, arising from the type of work the respondent was doing. He did not explain how he had reasoned from his specialised knowledge, on the basis of lay descriptions of how the respondent worked and photographic records of how that type of work was done, to his estimate of the dust concentrations inhaled by the respondent. Accordingly the evidence was inadmissible.

\textbf{Danger of admitting flawed expert evidence}

54. It is suggested that behind Heydon J’s insistence that the different elements of the basis rule should be implied within the construction of s 79, lies a concern about the risk of injustice that may flow from unsatisfactory expert evidence. According to Heydon J, the stricter the admissibility requirements under s 79, the greater the chance that evidence carrying that danger will be excluded.\textsuperscript{48} The use made by trial judges of expert evidence in both \textit{Makita} and \textit{Dasreef} illustrate this danger.

\textsuperscript{46} At [109].
\textsuperscript{47} At [137].
\textsuperscript{48} \textit{Makita} (2001) 52 NSWLR 705 at [59].
55. Another case that illustrates this principle is *R v Ryan*. In *Ryan*, the accused, who was Aboriginal, was convicted by a jury on charges of aggravated burglary, attempted rape, rape and indecent assault. The prosecution attempted to establish the presence of the accused at the scene of the crime through the evidence of a single witness, namely a forensic scientist providing an expert opinion based on DNA evidence. He calculated that DNA found at the scene was 1.5 billion times more likely to come from the accused than from another Aboriginal person.

56. During the trial, it became clear that the forensic scientist giving the evidence played no part in the collection or examination of any of the material that purportedly contained the DNA of the accused. The witness indicated that his evidence was based entirely upon examination of computer-generated printouts, the value of which was dependent upon a factual substratum of work and investigations about which no evidence was adduced before the jury. Despite objection by the defence, the trial judge ruled the evidence admissible on the basis that the absence of evidence regarding the facts on which the opinion is based goes to weight.

57. Citing *Makita*, the Court of Appeal held that:

> There was simply no evidentiary basis to support the opinion which accordingly should not have been put before the jury. The situation requires no elaborate exposition of the legal principles nor is the extensive citation of authority required with respect to such a basic proposition.

**Subsequent judgments referring to Dasreef**

58. The majority in *Dasreef* decided against expressly resolving the division between the state courts and the Federal Court as to the application of the basis rule in the context of the Uniform Evidence Legislation. However, a

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50 At [9].
number of judges in the Federal Court and the Family Court have interpreted the following statement by the majority as creating a requirement that, generally, experts should set out the facts upon which their opinions are based:

\[\text{It is ordinarily the case, as Heydon JA said in } \textit{Makita}, \text{ that “the expert’s evidence must explain how the field of “specialised knowledge” in which the witness is expert by reason of “training, study or experience”, and on which the opinion is “wholly or substantially based” applies to the facts assumed or observed so as to produce the opinion propounded”.} \]

59. Other Federal Court judges decided to continue to follow \textit{Sydneywide}.\textsuperscript{53}

60. In a recent judgment by Reeves J in the Federal Court,\textsuperscript{54} His Honour held that evidence of an expert witness was inadmissible under s 79 because, amongst other things, the evidence did not explain “why he had reached a particular view, or what facts, assumed or observed, the various views he expressed were based on”.

61. Therefore, it would appear that in the Federal Court, judges have interpreted the High Court’s decision in \textit{Dasreef} as justifying a stricter approach to the admissibility of expert evidence than was the case under \textit{Sydneywide}.

62. Relying on \textit{Dasreef}, appellate courts in both Victoria and New South Wales excluded expert evidence unless the facts it was based on were exposed and it was shown how the expert’s specialised knowledge applied to such facts.\textsuperscript{55}

\textsuperscript{51} See \textit{Ample Source International Ltd v Bonython Metals Group Pty Ltd} (No 6) [2011] FCA 1484; \textit{King v JeStar Airways Pty Ltd} [2011] FCA 1259; \textit{Moss v Moss} [2012] FAMCA 538; \textit{Visy Packaging Holdings Pty Ltd v Commissioner of Taxation} [2012] FCA 1195 at [255].

\textsuperscript{52} \textit{Dasreef} (2011) 277 ALR 611 at [37].

\textsuperscript{53} See \textit{McIlroy v McIlroy} [2011] FAMCA 506 per Trench J.

\textsuperscript{54} \textit{Sherwood v Commonwealth Bank of Australia} (No 4) [2013] FCA 1147 at [114].

\textsuperscript{55} \textit{SLS v R} [2014] VSCA 31 at [212]; \textit{White v Logen Pty Ltd as Trustee for Byrn Family Trust} (2014) NSWCA 159 at [56]; \textit{Warkworth Minning Ltd v Bulga Milbrodale Progress
63. In *Dura (Aust) Constructions Pty Ltd v Hue Boutique Living Pty Ltd (No 3)*, Dixon J expressed the view that since the majority did not consider it necessary to discuss the basis rule, nothing precluded him from “drawing assistance in resolving admissibility questions” under s 79 from Heydon J’s dissenting judgment. Dixon J went on to set out four “rules” that should “usually” be considered when deciding whether s 79(1) renders opinion evidence admissible:

(a) is the opinion relevant (or of sufficient probative value) (the relevance rule);
(b) has the witness properly based “specialised knowledge” (the expertise rule);
(c) is the opinion to be propounded “wholly or substantially based” on specialised knowledge (the expertise basis rule);
(d) is the opinion to be propounded “wholly or substantially based” on facts assumed or observed that have been, or will be, proved, or more specifically (the factual basis rules):

i. are the “facts” and “assumptions” on which the expert’s opinion is founded disclosed (the assumption identification rule);
ii. is there evidence admitted, or to be admitted before the end of the tendering party’s case, capable of proving matters sufficiently similar to the assumptions made by the expert to render the opinion of value (the proof of assumptions rule);
iii. is there a statement of reasoning showing how the “facts” and “assumptions” relate to the opinion stated to reveal that that opinion is based on the expert’s specialised knowledge (the statement of reasoning rule)?

64. It is submitted that there is little substantial difference between the test for admissibility proposed by Dixon J and the test set out by Heydon JA at paragraph [85] of his judgment in *Makita*. The test proposed by Dixon J in *Dura* was referred to with apparent approval by J Forrest J in *Matthews v SPI Electricity Pty Ltd* (No 9) and was followed by Dixon J himself in *Hudspeth v Scholastic Cleaning and Consultancy Association Inc*.

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57 At [97]-[98].
To date, courts in other Australian jurisdictions have not commented on Dixon J’s proposed test for admissibility under s 79.

**Conclusion**

66. Following the majority’s decision in *Dasreef*, for expert evidence to be admissible under s 79, it is necessary that such evidence explain how the field of specialised knowledge in which the witness is expert applies to the facts assumed or observed by the expert in producing his or her opinion. This is consistent with the principle set out by the High Court in *Ramsay v Watson*, which requires the trier of fact, whether it be a judge or jury, to arrive at its own conclusion regarding the facts in issue and which maintains that such a task cannot simply be transferred to an expert witness.

67. Accordingly, expert evidence must establish a nexus between the facts, the specialised knowledge and the opinion. It is difficult to see how this can be achieved without disclosing the facts, whether observed or assumed, underpinning the expert’s opinion. Moreover, if the facts underpinning the expert’s reasoning cannot be proved by admissible evidence, it is difficult to see how such a nexus can be established in a relevant and reasoned way.

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59 [2012] VSC 555 at [9].
60 (1961) 108 CLR 642
61 However, see the qualification to this principle in *Adam Kosian v R* [2013] VSCA 357 at [49] – [50].
63 For a contrary view see Stephen Odgers SC, *Uniform Evidence Law*, vol 1 (Thomson Lawbook Co, looseleaf) at 1-11254. According to Odgers the proposition that assumed facts upon which an opinion is based must be proved for the opinion to be admissible is not good law.
68. The better view may be that the basis rule has not survived as a stand-alone common law exclusionary rule, but that its elements have simply been subsumed into the requirements of s 79.