Admissibility of Expert Evidence: Proving the Basis for an Expert’s Opinion

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Abstract

Does the admissibility of expert opinion require identification of the factual assumptions upon which the opinion is based; that those assumptions be proven by admissible evidence; and that the reasoning process for the expert’s conclusions be exposed? These issues have been the source of litigation in many jurisdictions that have not answered the question uniformly. In particular, the Federal Court of Australia has not followed the Makita approach which supported a ‘basis rule’ for uniform evidence jurisdictions. The status and requirements of the ‘basis rule’ in the common law and under the Uniform Evidence Legislation are controversial. This article focuses on the interpretation of s 79 of the Uniform Evidence Legislation, namely the requirement that an opinion be ‘wholly or substantially based on [specialised] knowledge’. It also analyses the admissibility of expert opinion in light of the High Court’s recent decision in Dasreef Pty Ltd v Hawchar.

I Introduction

An expert’s opinion is a reasoned conclusion drawn from specialised knowledge based on facts which the expert has observed, assumed, or been instructed to assume. This article considers whether the admissibility of expert opinion in Uniform Evidence Legislation jurisdictions requires an expert to identify the factual assumptions upon which the opinion is based; and/or the party calling the expert to

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1 The jurisdictions that have enacted the Uniform Evidence Legislation are: Evidence Act 1995 (Cth); Evidence Act 1995 (NSW); Evidence Act 2001 (Tas); Evidence Act 2004 (NI); Evidence Act 2008 (Vic); Evidence Act 2011 (ACT) (‘Uniform Evidence Legislation’).
prove those factual assumptions with admissible evidence;\(^2\) and/or the expert to expose their reasoning process upon which their opinion is based. It focuses on the interpretation of s 79 of the Uniform Evidence Legislation, namely the requirement that an opinion be ‘wholly or substantially based on [specialised] knowledge’. This issue has great practical significance as objections to the admissibility of expert evidence based on the deficiency of its basis are frequently made in litigation.\(^3\) The basis of an opinion may be difficult to prove due to the operation of the hearsay rule. Freckelton and Selby suggest that objections to expert opinion due to its factual basis are ‘the most controversial and most litigated issue in expert evidence law in modern times’.\(^4\)

The requirements of s 79 were considered by Heydon JA in *Makita (Australia) Pty Ltd v Sprowles*\(^5\) where his Honour interpreted s 79 to require identification and proof of the factual basis of an opinion, and the exposure of the expert’s reasoning process in order to demonstrate that an opinion is ‘based on [specialised] knowledge’.\(^6\) Heydon JA’s interpretation of s 79 is influential as it has been considered across all Australian jurisdictions, though not accepted by all of them. Those jurisdictions that have not followed all of the requirements in *Makita* have ruled that the basis of an opinion is an issue which affects the opinion’s weight rather than its admissibility. In considering the question of whether the factual assumptions and the reasoning process upon which the opinion is based must be identified and/or proven under s 79, this article will first examine the statutory framework for the admissibility of expert evidence and the basis rule in the common law. It will then consider *Makita*’s interpretation of s 79 and the jurisprudence that flows from it. Finally, the article will analyse the High Court’s recent decision in *Dasreef Pty Ltd v Hawchar*\(^7\) and the issues that are likely to emerge in relation to jurisprudence on the admissibility of expert opinion. One of those issues is whether proof of an opinion’s factual basis is necessary for admissibility of the opinion. This article will examine Heydon J’s judgment on that issue, even

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\(^2\) The admissible evidence can be in the form of observations made by the expert or hearsay evidence adduced from the expert. The admissible evidence to prove the facts on which the opinion rests can also be adduced from sources independent of the expert.

\(^3\) For example, in *Hawchar v Dasreef Pty Ltd* [2009] NSWDDT 12 (22 May 2009), Dasreef raised more than 70 objections to the expert evidence. The grounds for the objections were that the opinions were not based on specialised knowledge and that they failed to satisfy the principles in *Makita (Australia) Pty Ltd v Sprowles* (2001) 52 NSWLR 705 (‘*Makita*’). See *Hawchar v Dasreef Pty Ltd* [2009] NSWDDT 12 [59] (Curtis J).


\(^5\) (2001) 52 NSWLR 705.

\(^6\) Ibid 743 [85].

\(^7\) *Dasreef* (2011) 277 ALR 611.
II Admissibility of Expert Evidence under the Uniform Evidence Legislation

The Uniform Evidence Legislation was the result of the Australian Law Reform Commission’s (ALRC) inquiry into the law of evidence. The Commonwealth of Australia was the first to enact the uniform legislation in 1995, followed by New South Wales, Tasmania, Norfolk Island, Victoria and the Australian Capital Territory. The Uniform Evidence Legislation was the subject of a second ALRC inquiry which examined its performance and recommended amendment; however it did not recommend amending the expert evidence provisions.

The statutory framework for the admissibility of expert opinion requires that the opinion must first be relevant; that is, ‘if it were accepted, [the opinion] could rationally affect (directly or indirectly) the assessment of the probability of the existence of a fact in issue in the proceeding’. Under the Uniform Evidence Legislation, the opinion rule excludes evidence of an opinion ‘to prove the existence of a fact about the existence of which the opinion was expressed’. The exception to this exclusionary rule is s 79(1) which provides:

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.

The importance of relevance was highlighted by the plurality in Dasreef, observing that the tendering party is required to identify the fact which the opinion proves or assists in proving because the opinion rule assumes that evidence of an opinion is tendered to ‘prove the existence of a fact’.  

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9 See above n 1.
11 Uniform Evidence Legislation ss 55, 56.
12 Ibid s 76.
Failure to identify the assumptions for the opinion, or prove the factual basis or reasoning used to reach a conclusion, could make an opinion irrelevant and therefore inadmissible. An opinion based on factual assumptions that are not established by evidence could render the opinion irrelevant to assess the existence of a fact in issue in a particular case; for example, an opinion about slipperiness based on the assumption of a wooden surface is clearly irrelevant in a case where the evidence unequivocally establishes that the plaintiff slipped on concrete.

Expert opinion which satisfies s 79 can be excluded at the trial judge’s discretion if its ‘probative value’ is outweighed by the danger that the evidence is ‘unfairly prejudicial’, ‘misleading or confusing’, or might ‘cause or result in undue waste of time’. The lack of a factual or reasoning basis for an expert’s opinion could give rise to the operation of ss 135 or 137. For example, an opinion based on factual assumptions that are not established by evidence could ‘mislead’ the trier of fact. An expert opinion which does not disclose its reasoning process could place the cross-examiner in a position where their task is to impeach the expert’s conclusions without knowing how those conclusions were reached. This could risk the expert validating their opinion in cross-examination and create ‘unfair prejudice’. In New South Wales and Victoria, the unreliability of an expert’s opinion is not considered in assessing the opinion’s ‘probative value’ — the evidence is taken at its highest. For example, the credibility of the expert as a witness is not used to assess the ‘probative value’ of the expert evidence for the purpose of ss 135 and/or 137, although the

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14 See, for example, Eric Preston Pty Ltd v Euroz Securities Ltd (2011) 274 ALR 705, 724 [171] where the assumptions upon which the opinions were based were not established by the evidence and therefore the opinions were irrelevant.

15 Uniform Evidence Legislation s 135, applicable in all proceedings, and s 137, which is applicable in criminal proceedings where the evidence’s ‘probative value is outweighed by the danger of unfair prejudice to the defendant’.

16 See, for example, Assafiri v The Shell Company of Australia [2010] NSWSC 930 (18 August 2010) [5] (McDougall J) where the expert evidence was inadmissible due to the unfair prejudice caused by cross-examining in the dark.

unreliability of an opinion would be a factor used by the trier of fact to assess the opinion. The admissibility of expert reports can also be subject to procedural rules which require that the report be in a particular form. Most courts require that expert reports include the facts and assumptions upon which the opinion is based, and some rules also require the reasons for the opinion.

III The Basis Rule and the Common Law

A Definition

The ‘basis rule’ at common law is defined by the plurality in Dasreef as 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’. This is consistent with the ALRC’s definition. However, some cases have also referred to the identification of the factual assumptions as being a part of the common law basis rule. In addition, Heydon JA’s remarks in Makita have been broadly described as stating the basis rule. Makita has been interpreted as

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18 Unreliable evidence could also give rise to a specific judicial warning under s 165 of the Uniform Evidence Legislation.
19 See, for example, Uniform Civil Procedure Rules 2005 (NSW) r 31.27; Supreme Court (General Civil Procedure) Rules 2005 (Vic) r 44.03; Uniform Civil Procedure Rules 1999 (Qld) r 428; Supreme Court Rules 2000 (Tas) r 516(2); Court Procedures Rules 2006 (ACT) Sch 1 (Expert witness code of conduct); Supreme Court Civil Rules 2006 (SA) s 160(3); Supreme Court Rules 1987 (NT) (Expert witness code of conduct); Federal Court of Australia Practice Note CM 7, Expert witnesses in proceedings in the Federal Court of Australia, 1 August 2011. Note that the court retains discretion to dispense with procedural rules: for example, Civil Procedure Act 2005 (NSW) s 14.
21 ALRC 26, 417 [750]. The Commission referred to it in 2005 as the ‘factual basis rule’: ALRC 102, 293 [9.52].
22 See Branson J in Quick v Stoland Pty Ltd (1998) 87 FCR 371, 373–4 and Sydneywide Distributors Pty Ltd v Red Bull Australia Pty Ltd (2002) 55 IPR 354, 357. Also see Castel Electronics Pty Ltd v Toshiba Singapore Pty Ltd (2011) 277 ALR 116, 146 [217], which did not ‘address the question whether the basis rule applies to the report or evidence of an expert so that the report must identify the assumptions upon which the opinion is based’.
23 Andrew Ligertwood and Gary Edmond, Australian Evidence: A Principled Approach to the Common Law and the Uniform Acts (LexisNexis 5th ed, 2010), 649. The authors state, ‘What Heydon JA emphasises is that to be admissible it must be established that expert opinion evidence is based upon specialised knowledge that can be used to draw inferences from particular facts or assumptions (capable of proof through admissible evidence), and that these inferences are in turn relevant to a determination of the material facts in issue in the case’. His remarks have been described as stating ‘the basis rule’, although, because of the required close relationship between the specialised knowledge and the facts determinative of the case, the exact ambit of the rule has not been without its share of controversy and confusion’ (footnotes omitted).
imposing a basis rule that ‘the expert must provide the facts, assumptions and the reasoning process which contributed to the inference being drawn by the expert’.  

Facts that are the basis of the expert’s ‘specialised knowledge’ are not subjected to the basis rule; for example, knowledge ascertained from journals or textbooks.  

Under the Uniform Evidence Legislation such representations could be admissible under ss 69 or 60. However, the Full Court of the Federal Court of Australia has ruled that the Uniform Evidence Legislation does not displace the common law exception to the hearsay rule which permitted experts to base their opinions on sources.

**B Admissibility or Weight?**

The existence of a basis rule in the common law, as defined by the requirement that the factual basis of an opinion be proved by admissible evidence, has created controversy. Pattenden analysed the basis rule and commented that ‘despite its superficial simplicity this area of the Law of Evidence seems to resemble a minefield’. There are common law cases which support the contention that a basis rule exists as a rule of admissibility. Other cases use language which suggests that the basis rule is a matter relevant to the weight to be

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25 At common law, such representations were admitted as an exception to the hearsay rule: *PQ v Australian Red Cross Society* [1992] 1 VR 19, 36; *R v Abadom* [1983] 1 WLR 126. See also Rosemary Pattenden, ‘Expert Opinion Evidence Based on Hearsay’ [1982] Criminal Law Review 85, 90–1.

26 If a representation is admitted to prove the basis of the opinion then the representation can be used to prove the facts asserted in the representation, however this is subject to the judicial discretion to limit the use of the evidence: Uniform evidence legislation ss 60, 136.

27 *Bodney v Bennell* (2008) 167 FCR 84, [92]–[93] (Finn, Sundberg and Mansfield JJ). In this native title case, the Federal Court held that anthropologists could give evidence based on the writings of nineteenth and twentieth century anthropologists pursuant to the common law exception to the hearsay rule. This application of the common law under the Uniform Evidence Legislation is important to Heydon J’s analysis for the survival of the common law basis rule in *Dasreef : Dasreef* (2011) 277 ALR 611, 644 [110].

28 Pattenden, above n 25, 95.

given to the opinion rather than as a basis for its exclusion.\(^{30}\) Freckelton and Selby comment that the existence of a common law basis rule as an exclusionary rule is not ‘free from doubt’ because the High Court has not dealt with the issue unequivocally.\(^{31}\) The plurality in *Dasreef* declined to examine the common law position while Heydon J concluded that there is ‘no doubt’\(^{32}\) that a basis rule exists at common law and it has not been abolished by the Uniform Evidence Legislation.\(^{33}\) Whether it is part of the basis rule or not, there is authority for the proposition that the identification of the expert’s factual assumptions is a requirement of admissibility in the common law.\(^{34}\) The common law also required the expert to disclose the reasoning used to arrive at their conclusion(s).\(^{35}\)

In recommending the Uniform Evidence Legislation, the ALRC reported that there was uncertainty about whether the common law basis rule operated as a ‘criterion of admissibility or merely of weight’\(^{36}\) and if the ‘correct view is that there is a basis rule, then the law may be criticised’.\(^{37}\) The ALRC concluded that the ‘better view’ is that there is no basis rule which operated as a rule of admissibility.\(^{38}\) The ALRC said:

> 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.\(^{39}\)

The ALRC did not consider that this would make a ‘substantial change to the law as it functions at present’.\(^{40}\) The ALRC rejected the implementation of a basis rule as it would introduce ‘costly, time consuming and cumbersome procedures’.\(^{41}\) In 2005, the ALRC confirmed its earlier view that there was no basis rule at common law,\(^{42}\)

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\(^{30}\) *Paric v John Holland (Constructions) Pty Ltd* [1985] HCA 58; 59 ALJR 844, 846 [8]–[10] (Mason ACJ, Wilson, Brennan, Deane and Dawson JJ); *Milirrpum v Nabalco Pty Ltd* (1971) 17 FLR 141, 162–3 (Blackburn J); *Gordon v The Queen* (1982) 41 ALR 64, 64; *Marinovich v The Queen* (1990) 46 A Crim R 282, 301.

\(^{31}\) *Dasreef* (2011) 277 ALR 611, 622 [66] (Heydon J).

\(^{32}\) Ibid 644 [108] (Heydon J).


\(^{35}\) Ibid 417 [750].

\(^{36}\) Ibid 189 [362].

\(^{37}\) Ibid 417 [750].

\(^{38}\) Ibid 198 [363].

\(^{39}\) Ibid 417 [750].

\(^{40}\) Ibid 417 [751].

\(^{41}\) Ibid 198 [363].

\(^{42}\) ALRC 102, 289–96 [9.52]–[9.84]
which the Commission said means that the provisions of the legislation are ‘not disruptive of the smooth running of trials’.43

The ALRC’s position was the subject of powerful criticism by Heydon J in Dasreef.44 He argued that the ALRC’s interpretation of the common law is wrong. For example, the ALRC doubted that the authorities cited in Phipson on Evidence supported the position that the basis rule determines admissibility. Heydon J disagreed and pointed to the lack of criticism from judges, barristers or other authors of the many editions of Phipson as a ‘significant pointer to the existence of the rule’.45 However, the ALRC was not alone in its criticism of the authorities cited in Phipson in support of the basis rule as requirement of admissibility: the same criticism was made by Julius Stone.46 Freckelton and Selby have also observed that R v Turner,47 the oft-cited authority for whether a basis rule acts as an exclusionary rule, does not actually provide that an opinion is inadmissible if the basis rule is not satisfied48 as the decision refers to the lack of a factual basis resulting in an opinion ‘likely to be valueless’.49 The cases and commentaries demonstrate that there is uncertainty in the common law regarding whether the basis rule is a rule of admissibility or a matter relevant to weight, or both.50

However, if there was controversy in the common law, it has been clarified since ALRC 26 in cases that have clearly recognised the basis rule as a requirement of admissibility.51 In addition, Makita has been applied in the non Uniform Evidence Legislation jurisdictions to require a basis rule.52

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43  Ibid 298 [9.71].
44  Dasreef (2011) 277 ALR 611, 631-637 [71]–[89]. Heydon, above n 29, 1025–31 [29070].
46  Julius Stone and W A N Wells, Evidence: Its History and Policies (Butterworths, 1991) 443–4, although W A N Wells takes a different approach; cited and also observed by Freckelton and Selby, above n 4, 115.
48  Freckelton and Selby, above n 4, 114.
51  See R v Perry (1990) 49 A Crim R 243, 249; R v Aldridge (1990) 20 NSWLR 737, 744; R v Whitebread (1995) 78 A Crim R 452, 456. See also the extensive list of authorities cited by Heydon J in Dasreef (2011) 277 ALR 611, 629 [66]. Freckelton and Selby agree that a basis rule is ‘increasingly recognised’ in the common law but its existence is not ‘free from doubt’: above n 4, 114.
IV The Basis Rule and *Makita v Sprowles*

**A Background**

Ms Sprowles successfully sued her employer for personal injury in relation to falling down stairs at her workplace. The trial judge accepted expert evidence tendered by the plaintiff, without objection from the defendant,\(^{53}\) that the stairs were slippery.\(^{54}\) Each member of the appellate bench took a different path to find the expert’s opinion on slipperiness should not have been accepted.\(^{55}\) Heydon JA concluded that the history of incident-free use of the stairs should be preferred to the expert evidence\(^{56}\) because on examination of the expert’s conclusions ‘it is difficult to be convinced by them’,\(^{57}\) and there was a lack of reasoning in the report\(^{58}\) as there were no identifiable ‘scientific criteria within the report for testing the accuracy of its conclusions’.\(^{59}\)

**B Factual and Reasoning Basis as a Requirement of s 79**

In *Makita*, Heydon JA said that for expert opinion to be admissible, the facts required identification and proof by admissible evidence:

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\text{[T]he 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}
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\(^{53}\) It was also not contradicted by the expert evidence adduced by the defendant: *Makita* (2001) 52 NSWLR 705, 730 [61].

\(^{54}\) Ibid 712 [26] (Heydon JA).

\(^{55}\) Priestly JA did not accept the expert’s opinion because it ‘contradicted uncontradictable facts that showed that the stairs were not slippery’ — there was an accident-free history of the stairs: ibid 707, [4]. Powell JA found that the stairs met the Australian standard for surface friction and it was ‘quite impossible to reconcile’ the expert’s view with the existence of an Australian standard: 711, [20]–[21]. Priestly and Powell JJA did not agree with Heydon JA’s reasoning but they agreed with the orders proposed by Heydon JA. Heydon JA’s reasoning in relation to the expert evidence was not advanced by the defendant on appeal: 752 [110].

\(^{56}\) Ibid 750 [102].

\(^{57}\) Ibid.

\(^{58}\) Ibid 745 [87]; 749 [97]–[98].

\(^{59}\) Ibid 745 [88].
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.  

This is the ‘basal principle’ that requires the facts upon which the opinion is based to be proved by admissible evidence ‘to render the opinion of any value’.  

Heydon JA also said that a condition of admissibility was for the reasoning process to be exposed:

[The opinion of an expert requires demonstration or 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. If the court cannot be sure of that, the evidence is strictly speaking not admissible, and, so far as it is admissible, of diminished weight.]

The expert is required to ‘reveal the whole of the manner’ in which the facts were ‘dealt with in arriving at the formation of the expert’s conclusion’ and the grounds upon which the expert reached their opinion so that the court has criteria to evaluate the opinion. This is to prevent the cross-examiner having to cross-examine in the dark. Heydon JA stated that for the opinion ‘to be useful, it was necessary for it to comply with a prime duty of experts in giving opinion evidence: to furnish the trier of fact with criteria enabling

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60 Ibid 743 [85].  
63 Ibid 743 [85].  
64 Ibid 740 [82].  
65 Ibid 729 [59]-[60].  
66 Ibid 731 [62].
evaluation of the validity of the expert’s conclusions; and cited the Scottish case of Davie v The Lord Provost, Magistrates and Councillors of the City of Edinburgh as authority for that proposition.

In Davie, Lord President Cooper stated that ‘the bare ipse dixit of a scientist, however eminent, upon the issue in controversy, will normally carry little weight’. This suggests that the disclosure of reasoning bears on weight rather than admissibility, which was the outcome in Davie. However, Heydon J noted in Dasreef that the Lord President used the word ‘admitted’ at the beginning of the passage containing the reference to weight.

C The acceptance of Makita in Australian Jurisdictions

Heydon JA’s checklist for the admissibility of expert evidence has been accepted by NSW courts with some amendment. One qualification is that while the expert opinion must disclose the facts and reasoning upon which the opinion is based, the expert does not have to disclose the true factual basis. For example, an expert’s opinion which was originally formed by reference to information that the expert was later instructed to exclude from consideration, was still admissible because it identified a factual basis which the expert asserted to be an adequate basis for the opinion. The opinion did not become inadmissible because it did not disclose the other facts which initially formed the expert’s opinion (which was the true factual basis).

67 Ibid 729 [59].
69 Davie v The Lord Provost, Magistrates and Councillors of the City of Edinburgh 1953 SC 34, 40.
70 Dasreef (2011) 277 ALR 611, 639 [94].
71 Makita (2001) 52 NSWLR 705, 743 [85]. The criteria for admissibility has been accepted in both civil and criminal cases, see Rhoden v Wingate (2002) 36 MVR 499; Adler v Australian Securities & Investments Commission (2003) 179 FLR 1, 138 [631]–[632] (Giles JA); Hannes v Director of Public Prosecutions (Cth) (no 2) (2006) 205 FLR 217, 289 [290]–[292] (Barr and Hall JJ); Keller v R [2006] NSWCCA 204 (26 July 2006) [43] (Studdert J). Cf Hevi Lift (PNG) Ltd v Etherington [2005] NSWCA 42 (4 March 2005) where it was not ‘necessary to consider ...whether Heydon JA’s judgment in Makita set too high a standard for the admissibility of expert opinion evidence’: [57] (Mc Coll JA); and Hancock v East Coast Timber Products Pty Limited [2011] NSWCA 11 (15 February 2011) where it was said ‘strict compliance with each and every feature referred to by Heydon JA in Makita was not required’: [82] (Beazley JA).
basis). Spigelman CJ did not refer to a requirement that the factual basis of an opinion be proven by evidence when he said:

What Heydon JA identified as the expert’s ‘prime duty’ is fully satisfied if the expert identifies the facts and reasoning process which he or she asserts justify the opinion. That is sufficient to enable the tribunal of fact to evaluate the opinions expressed.

Further, in another case, whether an opinion is ‘based on specialised knowledge’ is a question of fact and will depend on the circumstances: for example,

A solicitor shown to have specialised knowledge of conveyancing practice can give opinion evidence of general conveyancing practice without spelling out the links between his training, study and experience and his opinion. The links are apparent from the nature of the specialised knowledge. If an exotic matter of conveyancing practice were in issue, it may be necessary for a satisfactory link to be made apparent.

Further, ‘the need to demonstrate the process by which an inference was drawn is less likely to be insisted upon with strictness in the case of a well-accepted area of expertise, than in other cases’.

In the short history of the Victorian Uniform Evidence Legislation, a judge hearing a claim for negligence in respect of an employer’s duty of care applied ‘the Makita principles, informed by the prior common law principles’ to s 79 to exclude opinion evidence from an educational administrator because it failed to identify the factual basis for the opinion and it did not apply ‘reasoning or criteria to the facts proved in evidence’. The judge found that the opinions were really ‘factual observations which ... do not rely on any specialised knowledge that is based on his training, study or experience’. The Australian Capital Territory has also applied Makita
to read a factual and reasoning basis rule into s 79. See above n 52.

D Divergence from Makita

The Federal Court has not embraced Makita. In Sydneywide Distributors v Red Bull Australia, Branson, Weinberg and Dowsett JJ concluded that s 79 did not require the identification of the assumptions for an opinion, proof of the factual assumptions, or the reasoning process to be exposed. Branson J labelled Heydon JA’s conditions of admissibility as a ‘counsel of perfection’ and repeated observations she had made in Quick v Stoland that the basis rule was intentionally not a requirement of s 79, rather it was for the primary judge to determine the weight to be accorded to the opinion. Weinberg and Dowsett JJ noted Heydon JA’s use of the term ‘strictly speaking’ and that the application of his statement of general principle ‘involve questions of degree, requiring the exercise of judgment’. Further, Weinberg and Dowsett JJ stated that it was undesirable for experts to offer ‘chapter and verse in support of every opinion against the mere possibility that it may be challenged’. Sydneywide has been applied in subsequent decisions of the Federal Court and the Full Bench of the Family Court. The ‘weight’

82 See above n 52.
85 Ibid 356 [7].
87 Sydneywide (2002) 55 IPR 354, 357 [10]. Branson J referred to the basis rule as requiring ‘proper disclosure of the factual basis of the opinion and cited ALRC 26. ALRC 26 defines the basis rule as ‘for expert opinion testimony to be admissible it must have as its basis admitted evidence’: 417 [750].
89 Ibid [89].
approach to the basis rule was applied in *Neowarra v Western Australia*. In *Neowarra*, Sundberg J found that the admissibility of anthropological opinions did not require their factual basis to be proved by admissible evidence. Sundberg J highlighted the ALRC’s decision to not to include a basis rule in its draft bill and concluded that the basis rule does not feature in s 79 nor has the common law basis rule been imported into s 79. While Sundberg J accepted that the factual assumptions for the opinion should be disclosed, his Honour firmly rejected a contention that the factual basis for an opinion be established by admissible evidence in order for the opinion to be ‘based on specialised knowledge’; rather it was a matter of weight. Further, Sundberg J analysed Gleeson CJ’s statement in *HG v R* where the Chief Justice said:

By directing attention to whether an opinion is wholly or substantially based on specialised knowledge based on training, study or experience, the section requires that the opinion is presented in a form which makes it possible to answer that question.

Sundberg J found that *HG* did not support the basis rule and that *Makita* was ‘restoring the basis rule’.

*Neowarra* has been followed in the Federal Court so that the admissibility of expert opinion evidence does not require the factual bases upon which the opinion is proffered to be established by other evidence; rather the lack of evidence to establish the basis of the opinion goes to weight. French J also followed *Neowarra* and found that the failure to establish the factual basis of an anthropologist’s...
opinion with admissible evidence was a matter of weight.\textsuperscript{104} The Federal Court authorities were applied in a Tasmanian case which also found that s 79 did not require proof of the factual basis for an opinion.\textsuperscript{105}

\section*{V Dasreef \textit{v} Hawchar}

\textbf{A Background}

The respondent, Mr Hawchar, recovered in the Dust Diseases Tribunal in respect of silicosis that the Tribunal found was caused when the respondent was employed by the appellant (Dasreef Pty Limited) as a labourer and a stonemason. Mr Hawchar worked for Dasreef between 1999 and 2005. In 2006 he was diagnosed with early stage silicosis. When Mr Hawchar was working for Dasreef there was an applicable standard prescribing the maximum permitted exposure to silica. The exposure standard for respirable silica was a time-weighted average of 0.2mg/m\textsuperscript{3} over a 40-hour working week.\textsuperscript{106}

Mr Hawchar relied on opinion evidence from Dr Basden, a chartered chemist, chartered professional engineer and retired academic, whose evidence was objected to at the trial.\textsuperscript{107} Dr Basden was retained to provide an opinion on the procedures that an employer could utilise to reduce the risk of a silica-related injury.\textsuperscript{108} His report identified two procedures that could have reduced Mr Hawchar’s exposure to dust, but were not: the employment of wet cutting and the provision of an exhaust hood close to the source of dust.\textsuperscript{109} Dr Basden expressed an opinion that the masks provided by Dasreef were inadequate.\textsuperscript{110} His report also considered the level of dust concentration generated in Mr Hawchar’s breathing zone when he was using a cutting wheel, which Dr Basden estimated was a thousand or more times

\begin{footnotes}
\item[106] The relevant standards are summarised by the primary judge: Hawchar \textit{v} Dasreef Pty Ltd [2009] NSWDDT 12 (22 May 2009) [65]–[73] (Curtis J). WorkSafe Australia in 1996 adopted 0.2mg/m\textsuperscript{3} as the maximum time-weighted average to which a person may be exposed in industry to airborne dust containing silica.
\item[107] The primary judge received Dr Basden’s report into evidence and then permitted Dr Basden to give evidence on the voir dire to determine the admissibility of his evidence. It was accepted by Dasreef that the primary judge’s use of Dr Basden’s evidence ‘was an implicit ruling on that evidence and the admission of the evidence on the voir dire as evidence in the proceeding’: Dasreef Pty Limited \textit{v} Hawchar [2010] NSWCA 154 (5 October 2010) [33].
\item[108] Dasreef (2011) 277 ALR 611, 615 [12].
\item[109] Ibid 616 [14].
\item[110] Ibid [15].
\end{footnotes}
greater than 0.2mg/m\(^3\).\(^{111}\) As a consequence, he expressed the opinion that the minimum protection factor required by ANZ Standard 1715 would be a powered air purifying respirator fitted with a filter.\(^{112}\)

The primary judge used Dr Basden’s evidence (his estimate that the level of respirable dust was a thousand or more times greater than 0.2mg/m\(^3\)) as an integer to calculate that the levels of silica dust to which Mr Hawchar had been exposed in the course of working for Dasreef were greater than the prescribed maximum level of exposure.\(^{113}\) The primary judge calculated that the time-weighted average of Hawchar’s exposure to dust while working for Dasreef, assuming he was exposed for 30 minutes on each of five days per week, was 0.25mg/m\(^3\), which exceeded the limit of 0.2mg/m\(^3\) in the relevant Australian standard. The central question before the Court of Appeal was whether the primary judge ‘erred in admitting evidence of Dr Basden as to the numerical level of respirable silica dust in [Mr Hawchar’s] breathing zone’.\(^{114}\)

The Court of Appeal (Allsop P, with Basten and Campbell JJA agreeing) dismissed Dasreef’s appeal on the inadmissibility of Dr Basden’s evidence.\(^{115}\) Allsop P stated that Dr Basden’s cross-examination on the voir dire ‘revealed that his opinion was not based on a precise measurement or a view expressed with precision, but rather an estimate drawn from his experience’.\(^{116}\) Allsop P concluded that Dr Basden’s ‘experience and specialised knowledge allowed him to say that given that dusts have a consistent fraction of respirable content and given that the [respondent] was working in clouds of silica as the evidence revealed, an inexact estimate of the concentration of respirable silica dust was what he said it was—a thousand times the acceptable level of the standard’.\(^{117}\)

**B Argument in the High Court**

The appellant submitted that the principal issue was whether in order for expert opinion to be admissible, it is a requirement of s 79 that

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\(^{111}\) Ibid [16].  
\(^{112}\) Ibid [15].  
\(^{113}\) Ibid 618 [23]. The primary judge also took into account the fact that Mr Hawchar suffered from silicosis and that the Tribunal was a ‘specialist tribunal and I am permitted to take into account my experience that this disease is usually caused very high levels of silica exposure’: *Hawchar v Dasreef Pty Ltd* [2009] NSWDDT 12 (22 May 2009) [87] (Curtis J). Dasreef also succeeded in appealing Curtis J’s use of his experience as a judge of a specialist tribunal.  
\(^{115}\) Ibid [41].  
\(^{116}\) Ibid [42].
‘the expert not only have expertise generally in the area of contention, but that the expert disclose the facts, assumptions and reasoning in a manner sufficient to make it plain to the judge that the opinion is wholly or substantially based on that expertise’. The appellant relied on Heydon JA’s analysis in *Makita* to argue that s 79 ‘requires some rational exposition to how the witness employed “specialist knowledge” to derive the particular opinion from facts, proved or assumed’. The appellant submitted that Dr Basden did not have expertise nor had he demonstrated ‘some exposition of rational reasoning’. Further, the appellant argued that the average concentration of respirable silica in the respondent’s breathing zone was ‘capable of being proved with precision by measurement, or theoretical calculations based on published data’ but Dr Basden had not measured the respirable dust concentration, nor used any calculations to base his opinion.

The respondent submitted that the appellant’s application of *Makita* to the interpretation of s 79 engrafted a basis rule onto the section so that s 79 is read in the following manner:

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 provided the expert disclose the facts, assumptions and reasoning in a manner sufficient to make it plain to the trial judge that the opinion is wholly or substantially based on that expertise.

The respondent relied on the ALRC’s intention to not include a basis rule. Further, the respondent submitted that the failure to identify factual assumptions, or prove the factual basis for the opinion or expose the expert’s reasoning process, were all matters that affected the weight of the opinion rather than its admissibility. The respondent submitted

118 Appellant’s written submissions, filed 29 March 2011 [2]. As noted above n 113, the appellant also appealed the trial judge’s finding of breach of duty based on the judge’s knowledge sitting as a ‘specialist tribunal’.

119 Appellant’s written submissions, filed 29 March 2011 [38].

120 Ibid [23], [28].

121 Appellant’s outline of oral submissions, 6 April 2011 [7]; appellant’s written submissions, filed 29 March 2011 [26].


123 The respondent relied on Gaudron J’s statement in *HG* that the failure to identify factual assumptions, the lack of consistency between the assumptions and the evidence, and the failure to expose the reasoning process were matters bearing on the weight of expert evidence not its admissibility: *HG v R* (1999) 197 CLR 414, 433 [63]. Gummow J agreed generally with Gaudron J on the effect of the opinion rule in that case: 449 [124]. The Federal Court authorities were also used to support the respondent’s submission: *Sydneywide* (2002) 55 IPR 354, *Neowarra* (2003) 134 FCR 208.
that s 79 required the establishment of ‘specialised knowledge’, required that the witness be qualified in the area of specialised knowledge and that the statement of opinion fit within that area.\textsuperscript{124} The respondent submitted that in \textit{HG}, Gleeson CJ considered only the question of specialised knowledge, rather than a requirement of reasoning, made clear by the fact that the Chief Justice referred to \textit{Clark v Ryan}\textsuperscript{125} twice in the same passage.\textsuperscript{126}

\textbf{C Plurality Judgment}

The plurality found that Dr Basden’s evidence was inadmissible to establish that Mr Hawchar’s exposure to silica dust in the course of working for Dasreef was greater than the level prescribed as the maximum permissible level of exposure.\textsuperscript{127} The plurality doubted that Dr Basden sought to express an opinion about the ‘numerical or quantitative level of respirable silica’;\textsuperscript{128} rather his opinion was ‘about what measures could have been taken to prevent Mr Hawchar contracting silicosis if he was exposed to respirable silica at levels as much as 1000 times greater than permissible levels’.\textsuperscript{129} It was ‘not intended to be an assessment which could form the foundation for a calculation of the time weighted average level of exposure of a particular worker’.\textsuperscript{130} In its application of s 79 to Dr Basden’s report, the plurality stated:

\begin{quote}
In order for Dr Basden to proffer an admissible opinion about the numerical or quantitative level of Mr Hawchar’s exposure to silica dust it would have been necessary for the party tendering his evidence to demonstrate first that Dr Basden had specialised knowledge based on his training, study or experience that permitted him to measure or estimate the amount of respirable silica to which a worker undertaking the relevant work would be exposed in the conditions in which the worker was undertaking the work. Secondly, it would have been necessary for the party tendering the evidence to demonstrate that the opinion which Dr Basden expressed about Mr Hawchar’s exposure was wholly or substantially based on that knowledge.\textsuperscript{131}
\end{quote}

\begin{flushright}
\textsuperscript{124} \textit{Dasreef} (2011) 277 ALR 611, 628 [62].
\textsuperscript{125} (1960) 103 CLR 486. This was a case about whether a claimed expert fell within the relevant field of specialist knowledge.
\textsuperscript{126} \textit{HG v The Queen} 197 CLR 414, 427 [39].
\textsuperscript{127} \textit{Dasreef} (2011) 277 ALR 611, 614 [9].
\textsuperscript{128} Ibid 621 [34].
\textsuperscript{129} Ibid (emphasis in original).
\textsuperscript{130} Ibid [33].
\textsuperscript{131} Ibid [35].
\end{flushright}
The plurality found that Dr Basden did not give evidence of how his training, study and experience permitted him to give an opinion about the numerical or quantitative exposure, and therefore there was ‘no footing on which the primary judge could conclude that a numerical or quantitative opinion expressed by Dr Basden was wholly or substantially based on specialised knowledge based on training, study or experience’. There was no evidence that his training, study or experience permitted him to provide anything more than what he called a ‘ballpark figure estimating the amount of respirable silica dust to which a worker using an angle grinder would be exposed if that worker was using it in the manner depicted in the photograph of Mr Hawchar or a video recording Dr Basden was shown’. Dr Basden had seen the use of an angle grinder in this way only once before. Dr Basden gave no evidence that he measured the amount of respirable dust to which such an operator was or would be exposed. Therefore, the plurality found that Dr Basden’s reasoning showed a ‘lack of any sufficient connection between a numerical or quantitative assessment or estimate and relevant specialised knowledge’. This approach meant that the plurality did not need to consider the existence of a basis rule. The plurality concluded that Dr Basden’s evidence was inadmissible for the purpose for which the primary judge used it (to base a calculation to prove unsafe levels of exposure). However, the appeal was dismissed as there was undisputed evidence that Mr Hawchar was suffering from silicosis, that silicosis is a disease caused only by exposure to silica dust and given the disease’s latency, the disease was due to his employment with Dasreef.

D Justice Heydon’s Judgment

Heydon J, in dissent, found that Dr Basden’s evidence was inadmissible and that the matter should be remitted to the Court of Appeal. Heydon J observed that the expression ‘basis rule’ can be used in ‘a variety of senses’. Heydon J referred to the respondent’s argument and labelled the three elements of the basis rule as: first, the...
disclosure of facts and assumptions upon which the opinion is founded (‘assumption identification’ rule); second, the proof of the facts and assumptions before the opinion was admissible (‘proof of the assumption’ rule); and third, the requirement that a statement of reasoning show how the facts and assumptions related to the opinion reveal that the opinion was based on expertise (‘statement of reasoning’ rule). Heydon J found that there is ‘no doubt’ that each of the three rules exists at common law and that the common law position is relevant to the construction of s 79 because of the text of s 79. His Honour found that the common law continues to apply in respect of the second rule, whereas the first and third rules are retained by the text of s 79. The continuation of the common law basis rule is a novel argument and is discussed further below.

(a) Section 79 and the Assumption Identification Rule

Heydon J rejected the respondent’s argument that the terms of s 79 do not expressly require the factual assumptions to be disclosed by an expert. Heydon J reviewed the legal authorities to conclude that, apart from Gaudron J’s view in HG, Branson J’s view that s 79 tends need not comply with an assumption identification rule is not supported by any other authority. Heydon J found that the text of s 79 supports the identification of the factual assumptions, and a construction of s 79 that abolishes the assumption identification rule should be rejected because ‘silence about the factual assumptions being made would have very unsatisfactory consequences’. These consequences are: that the court would not be able to understand the opinion, or whether it corresponds with the facts, or whether it is wholly or substantially based on the expert’s knowledge; the cross-examiner would be performing in the dark and should not be put at a disadvantage in deciding how to meet the evidence; and finally that identification of the factual assumptions would allow the ‘chance of the parties getting to grips, or at least getting to grips quickly’, otherwise proceedings would be slower and more costly.

The respondent’s submission that the plain terms of s 79 did not require the disclosure of the factual assumptions, and that requiring such disclosure was reading a basis rule into s 79 was rejected. Both the plurality and Heydon J found that to satisfy the terms of s 79 (that is, to
show that an opinion is ‘based on [specialised] knowledge’), an expert needs to explain how their field of ‘specialised knowledge’ applies to the ‘facts assumed’ to produce the opinion. Whether the identification of factual assumptions is part of the basis rule was raised as a question (which did not need to be answered) in a recent decision of the Full Federal Court.

(b) Section 79 and the Proof of the Assumption Rule

Heydon J rejected the respondent’s reliance on the absence of any words in s 79 retaining the common law rule and on the Commission’s stated intention to refrain from including a [proof of assumption] rule in the legislation. While the plurality declined to examine the existence of the basis rule at common law, Heydon J found that there was ‘no doubt’ that it exists in the common law and his Honour criticised the ALRC’s reasons for doubting the existence of the rule.

Heydon J dealt with the authorities that conflict with *Makita* by criticising the respondent’s and the various Federal Court judges’ reliance on ALRC 26 without first establishing the reason for permitting ALRC 26 to be taken into account for interpreting s 79. Heydon J construed the ordinary meaning of s 79 as not abolishing the proof of assumption rule. Heydon J found that the ALRC’s error in asserting that the basis rule did not exist ‘has misled both itself and some of its readers’ and that its ‘misapprehension of the common law, and hence of its task, has resulted in a failure to have enacted specific language ensuring that s 79 tenders need not comply with a proof of assumption rule’. Heydon J noted that the Act is not a ‘complete code’ and it ‘assumes the continuance of the common

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150 Ibid 622 [37]. The plurality qualifies this with ‘ordinarily’.
151 *Castel Electronics Pty Ltd v Toshiba Singapore Pty Ltd* (2011) 277 ALR 116, 146 [217] (Keane CJ, Lander and Besanko JJ). The question was raised but did not need to be answered because the Court thought the expert identified the assumptions and it was not asked to reconsider *Quick v Stoland* (1998) 87 FCR 371.
152 *Dasreef* (2011) 277 ALR 611, 644 [107]–[110].
153 Ibid 631–7 [71]–[89].
154 Ibid 642 [103].
156 Ibid 644 [108]. Heydon J found that ‘[t]he ordinary meaning of s 79, taking into account its language, its context in the Act (including ss 55–7), the function of the Act (which is the efficient and rational regulation of trials from an evidentiary point of view), and the unreasonable results which a contrary construction would produce, is that it does not abolish the common law proof of assumption rule. Failure by the tendering party to comply with the proof of assumption rule makes the opinion evidence irrelevant.
157 Ibid [109].
158 Ibid 645 [111]. Specific language was used to abolish the ultimate issue and common knowledge rules: Uniform Evidence Legislation s 80.
law’. He found that while s 79 does not expressly require compliance with the proof of assumption rule, the terms of s 79 have not abolished the common law rule. In support of this approach, Heydon J referred to the ‘the vast bulk of authority [that] holds that that principle applies in relation to tenders under s79’. As explained above, there is authority that follows Makita to require that the factual basis of an opinion be proven by admissible evidence; however there is also authority that takes the contrary view.

Heydon J replied to the ALRC’s criticisms of a basis rule by stating that the ALRC’s argument that evidence about the sources open to experts would be eliminated was unfounded because such evidence would indeed be admissible as an exception to the hearsay rule (as the basis of the expert’s knowledge). In addition, Heydon J criticised both the ALRC’s contention that the basis rule would introduce ‘costly, time consuming and cumbersome procedures’ and Branson J’s analysis that the rule would interrupt the ‘smooth running of trials’. Heydon J said that the requirement is for proof that there is evidence which ‘taken at its highest is capable of supporting the expert’s factual assumptions’ as distinct from the requirement that the evidence ‘actually does support them’. This distinction means that a judge is not required to assess the reliability of evidence supporting the factual basis of an opinion when determining the admissibility of the opinion.

Heydon J concluded that the consequences of not requiring a factual basis rule are that ‘useless’ expert evidence is received which creates ‘countervailing difficulties — costs burdens, unduly long trials, the risk of misleading the trier of fact, and unnecessary appeals’. Therefore, the abolition of the rule would remove a safeguard against useless evidence and the rule could lead to procedural problems. Such difficulties could be remedied by the operation of the judicial discretions, however Heydon J argued that to use discretions to ‘secure the advantages of a proof of assumption rule which s 79 putatively did not introduce is inefficient’.

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159 Dasreef (2011) 277 ALR 611, 644 [110].
160 Ibid.
161 Ibid.
162 Ibid 645 [112]–[115]. They would not be caught as they are facts that form the basis of the expert’s knowledge, see above n 25.
163 Ibid 646 [117].
164 Ibid 647 [118] (emphasis in original). This was also stated by Heydon J in Rhoden v Wingate (2002) 36 MVR 499, 525 [86].
165 Dasreef (2011) 277 ALR 611, 647 [118].
166 Ibid 657 [120].
167 Ibid 648 [121]–[126]. (Such as cross-examining in the dark.)
168 Ibid 647 [119].
(c) Section 79 and the Statement of Reasoning Rule

Justice Heydon found that the language of s 79 supports the continuation of the statement of reasoning rule.169 Heydon J demonstrated the interdependence of the three rules:

In short, the utility of receiving expert opinions rests in what the trier of fact can make of them. If the assumed facts are not stated, no reasoning process can be stated and the opinion will lack utility; if there is no evidence, called or to be called, capable of supporting the assumed facts, no reasoning process, even if stated, will have utility; and even if there are facts both assumed and capable of being supported by the evidence, they will lack utility if no reasoning process is stated. In each instance, a lack of utility results in irrelevance and inadmissibility.170

Heydon J provided another justification for the retention of the factual basis rule: ‘in view of the close interrelationships between the three common law requirements it would be strange if the first and third continued in relation to s 79 tenders, as is almost universally agreed, but not the second’.171

VI Issues relating to the Admissibility of Expert Opinion

A Importance of Relevance

The High Court in Dasreef emphasised the importance of relevance172 through the plurality’s statement that:

[T]he opinion rule is expressed as it is in order to direct attention to why the party tendering the evidence says it is relevant. More particularly, it directs attention to the finding which the tendering party will ask the tribunal of fact to make. In considering the operation of s 79(1) it is thus necessary to identify why the evidence is relevant: why it 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’. That requires identification of the fact in

169 Ibid 650 [130].  
170 Ibid [133].  
171 Ibid 651 [134].  
172 Relevance was also central in Smith v The Queen (2001) 206 CLR 650; Lee v The Queen (1998) 195 CLR 594; Papakosmas v The Queen (1999) 196 CLR 297.
issue that the party tendering the evidence asserts the opinion proves or assists in proving.173

The fact in issue to which Dr Basden’s evidence was relevant (the protective measures available to Dasreef) was not the same as the use to which the primary judge made of it (as an integer to calculate that Mr Hawchar was exposed to greater than the prescribed maximum level of exposure to respirable silica). Put another way, Dr Basden’s opinion was relevant to proving breach of duty; however the trial judge used it to prove causation. The difference between the relevance for which Mr Hawchar tendered the evidence and the use which was made of the evidence highlighted that Dr Basden’s opinion about the numerical or quantitative exposure was not ‘based on specialised knowledge Dr Basden had that was based on his training, study or experience’.174 The form of his opinion did not connect the estimate with his relevant specialised knowledge.175

B Criteria Governing s 79

The plurality in Dasreef interprets s 79 as requiring the satisfaction of two criteria:

The first is that the witness who gives the evidence ‘has specialised knowledge based on the person’s training, study or experience’; the second is that the opinion expressed in evidence by the witness ‘is wholly or substantially based on that knowledge’.176

The first criterion requires a ‘specialised knowledge’ or a field of expertise to exist and that the witness be qualified in the specialised knowledge; and the second criterion requires that the opinion be based on specialised knowledge.177 In applying s 79, courts have not imposed a criteria of evidentiary reliability to determine the admissibility of expert opinion as was imposed in the United States case, Daubert v Merrell Dow Pharmaceuticals Inc.178 Australian law has neither

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173 Dasreef (2011) 277 ALR 611, 620 [31].
174 Ibid 621 [34].
175 Ibid 621 [36], 622 [42].
176 Ibid 620 [32].
177 Heydon J, writing extrajudicially, stated the requirements as follows: ‘First, is the field one in which there is specialised knowledge? Secondly, does the witness have it? Thirdly, is the opinion wholly or substantially based on that knowledge?’: Heydon above n 29, 1059 [29180]. Sundberg J also refers to three requirements in Neowarra (2003) 134 FCR 208 [21].
178 509 US 579 (1993) (‘Daubert’). The Supreme Court named four criteria for a judge to assess evidentiary reliability and determine admissibility of expert opinion: whether a theory or techniques can be or has been tested; whether a theory of technique had been subjected to peer review and publication; the known or potential error rate; and whether the theory or technique has received ‘general acceptance’. Daubert was extended in Kumho Tire Co v Carmichael 526 US 137; 143 L Ed 2d 238; 119 S Ct 1167 (1999) to non-scientific opinion evidence.
followed nor been influenced by the *Daubert* criteria.\(^{179}\) While some members of the High Court have interpreted s 79 in such a way as to generally require expert evidence to meet a standard of reliability to determine whether a ‘specialised knowledge’ — or a field of expertise — exists.\(^{180}\) However, another view is that to adopt an interpretation of s 79 by importing reliability concepts would be to read words into s 79.\(^{181}\) Consistent with that view, in another case, it was said that the ‘focus of attention must be on the meaning of the statutory phrase “specialised knowledge”, rather than by invoking extraneous ideas such as reliability’.\(^{182}\) Edmond has commented on these authorities and observed that ‘the idea of reliability has not been central to common law jurisprudence associated with expert opinion evidence or opinion based on “specialised knowledge”’.\(^{183}\) Requiring disclosure of the reasoning process could potentially cause the court to focus on the reliability of the opinion,\(^{184}\) but as Heydon J points out the court does not have to be satisfied that the reasoning is correct.\(^{185}\)

Another issue is that the admissibility standards for expert evidence (as opposed to the criteria) appear to be applied more strictly in civil cases. Edmond and Roberts have identified the disparity in the application of admissibility standards between civil and criminal proceedings so that the criteria is applied ‘more fastidiously’ to exclude

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179 References to *Daubert* have been made in passing and include: Gleeson CJ’s footnote in *HG* that ‘[i]t is unnecessary for present purposes to enter into issues of the kind considered in *Daubert v Merrell Dow Pharmaceuticals Inc* 509 US 579 (1993). It is the language of s 79 which has to be applied’: *HG v The Queen* (1999) 197 CLR 414, 427 at footnote 37; Spigelman CJ in *Tang* commented that he did ‘not wish to suggest that *Daubert* had anything useful to say about s 79’: *R v Tang* (2006) 65 NSWLR 681, 713 [139]; and Bell J said that the ‘question of whether a field is one of “specialised knowledge” does not require proof of the matters with which the Court was concerned in *Daubert*’: *R v McIntyre* [2001] NSWSC 311 [14].


181 Gleeson CJ made the point that the language of the statute is to be applied: *HG v The Queen* (1999) 197 CLR 414 at footnote 37.


184 For example, in *R v Tang*, the witness failed to identify the protocol used which would reveal her process of reasoning to arrive at her opinion on identification from a technique of facial mapping and body mapping. This led the court to conclude that her opinion failed to demonstrate that it was based on specialised knowledge: (2006) 65 NSWLR 681, 713–4 [141]–[147], 714–5 [152]–[155] (Spigelman CJ).

expert opinion adduced by plaintiffs than to expert evidence adduced by the prosecution. They argue that this implies that admissibility decisions may be not strictly based on the rules but shaped by other factors such as ‘concerns about crime and impressions of civil justice in crisis’.

C Meaning of ‘Based on Specialised Knowledge’ – Connection of the Expertise to the Opinion

The plurality’s analysis in Dasreef emphasised that admissibility is to be determined in accordance with the Uniform Evidence Legislation rather than by ‘any attempt to parse and analyse particular statements in decided cases divorced from the context in which those statements were made’. However, their Honours do cite Makita in a limited way:

[I]t 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 plurality read the above paragraph with ‘one basic proposition at the forefront of consideration’; namely that admissibility of opinion is to be determined by application of the requirements of the Uniform Evidence Legislation rather than statements in decided cases. The plurality apply the terms of s 79 rather than using the words of Makita (and Davie) and do not specifically require that ‘scientific criteria for testing the accuracy’ of the expert’s conclusions be furnished. The plurality state:

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

186 Edmond and Roberts, above n 183, 375.
187 Ibid.
188 Dasreef (2011) 277 ALR 611, 622 [37].
189 Ibid.
190 Ibid.
191 Ibid [37].
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.192

The requirement that an opinion is ‘based wholly or substantially’ on specialised knowledge necessitates the expert demonstrating that their expertise is connected to the opinion.193 This is a matter of ‘form’ and the expert is required to present their opinion in a way that can explain that the opinion is based on training, study or experience.194 This will also ‘ordinarily’ require identification of the factual assumptions for the opinion.195 The demonstration that an opinion is based on specialised knowledge will not require lengthy explicit reasoning where the opinion expressed by the witness is connected with the witness’s specialised knowledge based on training, study or experience.196 This interpretation means that expert reports will need to identify the factual assumptions upon which the opinion is based and may need to explain how the expert’s conclusion is connected to their specialised knowledge.197

While Heydon J speaks of the need for the expert to ‘state the criteria necessary to enable the trier of fact to evaluate that the expert’s conclusions are valid’,198 the plurality judgment’s focus is on whether the expert gives evidence of their training, study or experience to provide a connection to their opinion. (Dr Basden’s training, study and experience were not connected to the numerical assessment to show that it was based on his specialised knowledge.) The plurality do not say that the purpose of this requirement is to validate the expert’s conclusions.

192 Ibid [37].
193 Ibid [41].
195 (2011) 277 ALR 611, 622 [37] (extracted above n 191).
196 Ibid [41]. This is consistent with Allsop J’s statement in a Federal Court decision that he did not determine admissibility by the ‘quality of the reasoning underpinning its expression’ but rather admissibility is determined by ‘coming to the view whether the opinions are based on the relevant specialised knowledge’: Gambro Pty Ltd v Fresenius Medical Care Australia Pty Ltd (2007) 245 ALR 15, 27 [43].
197 See Gunnersen & Anor v Henwood & Anor [2011] VSC 440 (7 September 2011) [63]–[64] (Dixon J).
While the plurality stated that an expert must ‘ordinarily’ identify the factual assumptions upon which their opinion is based, they did not examine whether the assumptions require proof in order for the opinion to be admissible under s 79. \(^{199}\) However, the plurality’s interpretation of s 79 suggests that a basis rule is not incorporated in s 79 as they explicitly refer to the identification of the ‘facts assumed or observed’ as a requirement of s 79 and do not refer to a requirement that the facts be proved by admissible evidence. \(^{200}\) However, the plurality does not consider whether the common law proof of assumption rule continues to apply — in addition to the requirements in s 79 — to expert evidence tendered under s 79. Unfortunately, the conflict between the Federal Court and \textit{Makita} jurisprudence has not been authoritatively settled. Similarly, prior to \textit{Dasreef}, there was no agreement among commentators on the law of evidence about whether the basis rule was a requirement under the Uniform Evidence Legislation. \(^{201}\)

Heydon J’s argument in \textit{Dasreef} is based on his analysis that the Federal Court approach is flawed as it placed ‘determinative significance’ \(^{202}\) on ALRC 26 without establishing the basis for its use \(^{203}\) and that the ALRC’s incorrect view of the common law resulted in Parliament’s failure to enact specific legislation to abolish the common law basis rule. As submitted by the respondent in \textit{Dasreef}, the legislation was passed with the specific purpose of excluding a basis rule which means that whether the ALRC was right in its view is now irrelevant. While s 79, as enacted, is the law, whether or not there ever was a basis rule in Australia, and whether or not the ALRC was

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199  Ibid 622 [37], [41].
200  Ibid [37].
201  Freckelton states that the effect of the Uniform Evidence Legislation is to remove the formal requirement of the factual basis rule: Freckelton and Selby, above n 4, 191; Gans and Palmer also state that no such rule appears in the statute: Jeremy Gans and Andrew Palmer, \textit{Uniform Evidence} (Oxford University Press, 2010) 145. Gans and Palmer also doubt that Heydon JA’s reasoning rule operates as a rule of admissibility: 147–8. Odgers places discussion of \textit{Makita} under the heading ‘the basis rule’ and refers to the lack of factual and reasoning basis as bearing on the question of relevance or discretionary exclusion. He does not state that the factual basis rule is a requirement of s 79 or continues to apply as a common law rule, but he does say the reasoning basis is a requirement of s 79: Stephen Odgers, above n 29, 338, 342–4 and 337–41. Andrew Ligertwood and Gary Edmond endorse the approach of Heydon J: Ligertwood and Edmond, above n 23, 648.
202  \textit{Dasreef} (2011) 277 ALR 611, 643 [105].
correct in its analysis of the common law, an issue remains as to whether the common law basis rule has survived. Heydon J was in dissent and his views on this point canvassed a matter the plurality found it unnecessary to consider. Heydon J’s conclusion that the basis rule survives under the Uniform Evidence Legislation is contrary to the Commission’s clear intention not to make such a rule a condition of admissibility. An issue for resolution is whether Heydon J’s analysis is correct. Further investigation is required as to whether, having regard to ALRC 26 and its use by Parliament, the common law basis rule survives under the Uniform Evidence Legislation. If the basis rule is a requirement under the Uniform Evidence Legislation then further examination will assist in clarifying the ambit of the exception to the hearsay rule for facts that form the basis of the expert’s ‘specialised knowledge’. Requiring clarification, for example, is the extent to which the ‘technical data’ and ‘knowledge’ referred to by an expert can form part of this hearsay exception in the common law.

E Survival of Common Law Rules

Heydon J’s argument for the survival of the basis rule is that the legislature has not expressly abolished the common law requirement that the factual basis of an opinion be established by admissible evidence. His Honour’s analysis does not consider a line of authority that provides that the rules relating to admissibility of evidence are codified. These authorities rely on s 56 of the Uniform Evidence Legislation which provides ‘except as otherwise provided by this Act, evidence that is relevant in a proceeding is admissible in the proceeding’. The effect of s 56 has been interpreted as a ‘clear intention that all issues of admissibility are to be governed by the Evidence Act’. However, this approach has not been followed in cases that have applied the common law doctrine in O’Leary v The King to admit evidence that forms part of the res gestae, so that

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204 In a recent application of Dasreef, a judge found that expert opinion that rested on assumptions not established on the evidence was ‘not strictly admissible’ but the judge gave them ‘no weight’: Smith v Brambles [2011] NSWSC 963 (26 August 2011) [77] (Schmidt J).
205 See above n 25.
206 McNeill v The Queen (2008) 168 FCR 198, 209 [60]–[62]. This position is also set out in ALRC 102, 52–2 [2.6]–[2.9].
208 (1946) 73 CLR 566.
209 Ibid 577. Dixon J said ‘Without [the evidence in question] the transaction of which the alleged murder formed an integral part could not be truly understood and, isolated from it, could only be presented as an unreal and not very intelligible event.
O’Leary continues to provide a basis for the admissibility of evidence (and is not subject to the tendency and coincidence provisions) under the Uniform Evidence Legislation.

Heydon J’s analysis could mean that in the absence of specific abolition, common law rules regulating the conditions for admissibility co-exist with the Uniform Evidence Legislation; for example the recent complaint doctrine for the admissibility of sexual assault complaints. It is noted that in Papakosmas v The Queen, the High Court rejected the contention that the common law recent complaint doctrine governed the admissibility of complaint evidence admitted for a hearsay use because it would be ‘an unacceptable attempt to constrain the legislative policy underlying the statute by reference to common law rules and distinctions which the legislature has discarded’. The application of common law doctrines to determine the admissibility of evidence is distinguished from common law concepts that are fitted within the terms of the Uniform Evidence Legislation, for example, the ‘ad hoc expert’ has been found to fit within the broad terms of s 79.

**F Procedure after Objections to Evidence**

In Dasreef, both judgments were critical of the primary judge’s failure to deliver a ruling after the voir dire. Dasreef now makes it difficult for trial judges to defer ruling on admissibility until the point when facts are being determined. The plurality states that the ‘general rule’ is that trial judges should ‘rule upon …objections as soon as possible’. Admissibility rulings should be delivered after the objection is made and argued. A recent case has applied Dasreef to

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The prisoner’s generally violent and hostile conduct might well serve to explain his mind and attitude, and therefore to implicate him in the resulting homicide.

210 Uniform Evidence Legislation ss 97, 98 and 101.


212 See R v Lilyman [1896] 2 QB 167; Kilby v The Queen (1973) 129 CLR 460.

213 As stated by Gleeson CJ and Hayne J in Papakosmas v The Queen (1999) 196 CLR 297, 310 [39].

214 R v Leung (1999) 47 NSWLR 405, 413 [40]. This has been criticised as a misinterpretation of s 79: Gary Edmond and Mehera San Roque, ‘Quasi-Justice: Ad Hoc Expertise and Identification Evidence’ (2009) 33 Criminal Law Journal 8.


216 Ibid [18]–[20].
state that the practice of provisionally admitting evidence subject to relevance or weight should be eschewed.217

While the plurality do not decide whether expert evidence is subject to the basis rule, a significant implication of the decision is that objections may ‘interrupt the smooth running of trials’ by the ‘need to explore in detail, in the context of admissibility, matters more properly considered at the end of the trial in the context of the weight to be attributed to the evidence’.218 This may have the effect of lengthening proceedings due to voir dire proceedings and the need for lengthy expert reports and may impact on both private and public costs of litigation. However, it should be remembered that as stated by Heydon J in respect of the factual basis for an opinion, the court need only be satisfied that there is evidence to establish the factual basis. It does not have to assess whether the evidence actually proves the facts. This means that, in determining the factual basis for an opinion, a judge takes the evidence at its highest which means that the court does not evaluate its reliability. It is arguable that Heydon J’s statement does not reflect the usual manner in which voir dires are conducted. They are extensive in jury trials as they can result in the exclusion of evidence, and in judge-alone trials the judge will often decide the whole question on the voir dire.

VII Conclusion

The terms of s 79 require that an ‘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’.219 This requires a nexus between the opinion and the witness’s specialised knowledge.220 This connection will usually require explanation of how the specialised knowledge applies to the facts or assumptions.221 The plurality in Dasreef envisages this requirement being met in most cases ‘very quickly and easily’.222 The disclosure of the expert’s reasoning and assumptions to establish this connection is a question which governs admissibility not weight. An important question that remains is whether proof of the factual assumptions has survived as a common law exclusionary rule.

217 Dasreef was applied in Director-General, Department of Environment and Climate Change v Walker Corporation Pty Limited (No 4) to make that point: [2011] NSWLEC 119 (11 July 2011) [42] (Pepper J).
220 Ibid 622 [41].
221 Ibid [37].
222 Ibid.