

Admissibility and probative value of expert evidence of tracker dog scent identification

Abstract

The admissibility during criminal trials of expert evidence in relation to tracker dog behaviour and the accuracy of their identifications can be far from straightforward, in particular if sufficient bases are not established for it to be open to the decision-maker to invest trust in the accuracy of the dog's identification of an individual or of an object associated with an individual. This article highlights the limitations of such evidence, including the risks of the dog becoming distracted and providing a false-positive identification. The article also examines what is required for tracker dog identifications to be admissible and to have probative value. It also scrutinises major lines of international judicial authority in respect of expert evidence about dog tracker identification.

Keywords: tracker dogs, identification, dog handlers, police evidence, admissibility, expert evidence, probative value

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Introduction

The role of trained tracker dogs to identify scents¹ and to pursue traces of them is an important aspect of criminal investigation by police.²⁻⁴ However, such evidence is only as strong as the evidence which establishes the reliability of a tracker dog's skills and established patterns of performance.⁵ This article chronicles leading international judicial authorities in relation to the admissibility of such evidence and highlights the limitations and perils of tracker dog identification evidence, as well as the checks and balances to guard against false-positive identifications by tracker dogs.

Dog tracker evidence

A fundamental issue that attaches to expert evidence⁶ in relation to tracker dog behaviour in purporting to follow a scent accurately is the impossibility of knowing what constitute the dog's thought processes when appearing to pursue its quarry: "A dog has no way of qualifying his 'evidence'. He cannot tell us whether he is acting on a balance of probabilities or on a preponderance of probabilities, still less whether he is merely playing a joke".^{7,8} Concern about such evidence continues to raise concerns about the risks attaching to convictions substantially dependent upon such evidence.⁹

Early judicial decisions¹⁰ expressed the fear that to draw inferences from the behaviour of a tracker dog was to undertake the dangerous exercise of entering "a region of conjecture and uncertainty".¹¹ In *The People v Pfanschmidt* (1914), a robust position was taken: "the trailing of either a man or an animal by a bloodhound should never be admitted in any case", while in *Brott v The State* (1903, at 396)¹² Judge Stull concluded:

The bloodhound has, of course, a great reputation for sagacity, and there is a prevalent belief that, in the pursuit and discovery of fugitive criminals, he is practically infallible. It is a commonly accepted notion that he will start from the place where a crime has been committed, follow for miles the track upon which he has been set, find the culprit, confront him, and, mirabile dictum, by accusing

bay and mien, declare, "Thou art the man." This strange misbelief is with some people apparently incorrigible. It is a delusion which abundant actual experience has failed to dissipate. It lives on from generation to generation. It has still the attractiveness of a fresh creation. "Time writes no wrinkle on its brow." But it is, nevertheless, a delusion, an evident and obvious delusion. The sleuthhound of fiction is a marvellous dog, but Ave find nothing quite like him in real life. We repudiate utterly the suggestion that there is any common knowledge of the bloodhound's capacity for trailing, which would justify us in accepting his conclusions as trustworthy under circumstances like those disclosed by the present record.

He explained:

The bloodhound is endowed with a remarkably keen scent. He has great ability for differentiating smells. His method of trailing is simple and well understood. Particles of waste matter given off by a particular individual fall to the ground and, while undergoing chemical change, come in contact with the olfactory nerves of the dog, and produce an impression which he is able to recognize, as distinct and different from all other impressions. Hence, for a short time, a man may be easily trailed in the woods, or in the open country, by the effluvia in his wake. But in a city, and after the lapse of considerable time, the trailing is obviously more difficult and often, manifestly, impossible. But difficulties do not deter the bloodhound from pursuing his business. He trails as best he can. He always follows some scent, and he goes somewhere. Undoubtedly, nice and delicate questions are time and again presented to him for decision. But the considerations that induce him, in a particular case, to adopt one conclusion rather than another cannot go to the jury.

These authorities attest eloquently to the judicial concern of the potential unreliability in the interpretation of a tracker dog's behaviour in identifying a scent, even in fact when it is the dog's handler who is undertaking the exercise of interpretation: see McCormack.¹³

It has also been asserted that the status of tracker dog evidence, its apparently scientific character, may result in excessive deference: “a jury may accord to canine evidence an importance out of proportion to its evidential value”: McCormack.¹³ However, it has been held that if a deliberate attempt is made by a suspect to mislead a sniffer or tracker dog, that may result in an adverse inference.¹⁴

A telling articulation of the various sources of judicial anxiety in respect of tracker dog evidence is that of Innes CJ in *R v Trupedo* (1920, at 63)¹¹:

Not only is there the possibility that the dog may fail to distinguish between one scent and another, or may desert one for the other; but also there is the possibility of a misunderstanding between the animal and his keeper. And finally, the inability to cross-examine the dog has led some to assert the accused not to have been confronted by his accuser – an infringement of the hearsay rule is asserted.

In the early Canadian case of *R v White* (1926),¹⁵ Macdonald JA seemed to equate the position obtaining with dogs with that of Red Indian trackers who died before they could be cross-examined. However, in more modern times a body of case law has evolved in relation to the conduct of detection dogs, sniffer dogs and tracker dogs.

Judicial authorities

A series of judicial decisions in England, New Zealand, Australia, Canada, Scotland, Northern Ireland, South Africa, India and the United States has had occasion to consider the admissibility and probative value of evidence provided by the handlers of tracker dogs when the dogs have located, or failed to locate, items for which they have been sent to search. The general tenor of the modern authorities has been to acknowledge that while the evidence has the potential to be misinterpreted, it should be admitted, provided that a sufficient evidential basis has been established, and provided that a warning of its limitations is given to jury members.

English authority

One of the most extensive analyses of the various international decisions on the admissibility of tracker dog evidence is that of the English Court of Appeal in *Pieterse and Holloway* (1995)¹⁶ (see also *R v Sykes* (1997))¹⁷ where it was argued by the appellant that evidence regarding a tracker dog following a trail and arriving at an identifying strap in an alleyway should not have been admitted. It was asserted that the evidence with regard to what a tracker dog had done was analogous to hearsay evidence because there was only the handler’s evidence of the actions and reactions of the dog, which could not realistically be the subject of cross-examination. This was an argument that had previously been rejected in a number of jurisdictions such as South Africa and Canada. Alternatively, it was submitted to the Court of Appeal that evidence in relation to the behaviour of a tracker dog was intrinsically unreliable and so should be excluded. This, too, was a matter which had previously been canvassed in other jurisdictions, including Canada and New Zealand. It was argued that a dog has a will of its own and that it may act mischievously, or at any rate in a way which is not consistent with the Pavlovian reaction sought to be induced in the dog by its training.

The Court of Appeal was referred to the statement of Innes CJ in the South African case of *R v Trupedo* (1920),¹¹ where his Honour found:

We have no scientific knowledge as to the faculty by which dogs of certain breeds are said to be able to follow the scent of one human being, rejecting the scent of all others ... [T]here is too much uncertainty as to the constancy of his behaviour and as to the extent of the factor of error involved to allow us in drawing legal inferences therefrom.

The court noted the existence of a number of New Zealand decisions on the subject, including that of *R v Lindsay* (1970),¹⁸ as well as Canadian, Scottish, Northern Ireland and United States decisions. Lord Taylor, speaking for the Court of Appeal, followed the approach of the New Zealand, Northern Ireland and Maryland jurisdictions, expressly declining to follow the South African authority (at 16): “In our judgment, if a dog handler can establish that a dog has been properly trained and that over a period of time the dog’s reactions indicate that it is a reliable pointer to the existence of a scent from a particular individual, then the evidence should properly be admitted.”¹⁹ However, the Court of Appeal (at 16) emphasised two safeguards:

First, the proper foundation must be laid by detailed evidence establishing the reliability of the dog in question. Secondly, the learned judge must, in giving his directions to the jury, alert them to the care that they need to take and to look with circumspection at the evidence of tracker dogs, having regard to the fact that the dog may not always be reliable and cannot be cross-examined.

On the facts of the case, the court found that the trial judge had adequately warned the jurors about the care that they would need to take with the tracker dog evidence, but a more significant question arose in the context of the sufficiency of the evidence about the training and reliability of the dog. The statement tendered to the court (at 17) was in short form:

I have been a dog handler in the Thames Valley Police since June 1985. I have worked with police dog, Ben, for 18 months following the departure of Ben’s previous handler and the death of my previous police dog. Ben is a German Shepherd and will be eight years old in December 1993. He commenced his training at one year old in the Thames Valley Police Force and had six-and-a-half years’ experience of the work required from him in May 1983.

The court found the statement to be insufficient on the basis that it failed to give any account of the nature of the training provided to the dog, or the reliability of the dog on any tests carried out in controlled conditions to determine whether the training has produced a reliable response (at 17). Accordingly, “bearing in mind the scrupulous care ... necessary before such evidence can properly be adduced”, the court found that the foundation had not properly been laid for the admission of the evidence, although in the circumstances of the case the failure was not such as to amount to a mistrial.

Scottish authority

Tracker dog evidence was permitted in Scotland in *Patterson v Nixon* (1960)²⁰ which involved a charge of housebreaking with intent to steal. The dog was an Alsatian which had been trained at the training school of the London Metropolitan Police Force. Evidence established the length of the dog’s training and the fact that it had been tested and passed fit and up to a high standard for its purpose. Moreover, it was shown that the dog had been kept in rigorous training to maintain it at a high standard of proficiency in the tracking of human beings and in

differentiating between one human scent and another. The court was told that it was worked by only the one handler and, when scenting and tracking, was put on a 40-foot lead with a harness and shoulder strap running from the back of its neck and allowed to run free. The handler was permitted to give evidence that, while in his opinion the dog was not infallible, so far as he could discern the dog had never made a mistake in picking up the wrong scent or in distinguishing between scents. Two other experienced officers gave evidence that they were satisfied from the prior behaviour of the dog that it was reliable, and of an occasion where they had been wrong in respect of an offender's identity but the dog had been right (at 222). Thus, the groundwork evidence in respect of the reliability and capacity of the dog in distinguishing scents was carefully and substantially laid.

The dog had tracked the accused and had also participated in a test of a range of shoes in which it had picked out the shoe of the accused the first time. Thomson LJ-C found the tracker dog evidence to be impressive and that the animal was a "skilful and reliable tracker" (at 224). He conceded that no evidence had been adduced to prove that people had different scents but said (at 224): "I suppose it is common knowledge that people do have different scents and dogs are able to discriminate between one person's scent and another." He declined (at 224) to lay down any general rule in relation to tracker dog evidence: "Its value and significance is bound to be a question of circumstances in each particular case and the evidence given as to what the dog did and as to its skill and reliability has to be weighed just like any other evidence."

Northern Ireland authority

In *R v Montgomery* (1966)²¹ the Northern Ireland Court of Criminal Appeal found that tracker dog evidence had been properly admitted against three accused men charged with larceny. The three accused males had been tracked by an Alsatian named "Rocky II", which had undertaken training and refresher courses in tracking. Its handler had given evidence that the dog had efficiently tracked persons on average four or five times a month and was classified as a "good tracker". He agreed that it was possible that the dog could make a mistake but said that he had never known it to do so. Curran LJ noted (at 126) that it would be:

unrealistic to close one's eyes to the fact that it has been known for a long time that dogs can follow human scent. It is also common knowledge that dogs can be trained to obey commands. We see no reason to doubt that a dog can be trained to obey a command which tells him that he is to look for a scent and to follow it.

He found (at 126):

The tracker dog might be aptly described as a tracking instrument guided by a trail of human scent, and its handler as an expert trained to set it on a trail by the appropriate word of command and to observe whether it is tracking and whether at any point it has lost the scent it was following. As an expert the handler gives the evidence of the tracking operation and is subject to cross examination.

Australian authority

Although tracker dog evidence is occasionally adduced in Australian courts,^{22,23} only passing analysis of the admissibility of tracker dog evidence has occurred in Australian cases.

In an early authority, *Saccu v The Queen* (1980)²³ Starke J accepted (without deciding) that where the tracker dog and its master are "properly qualified by evidence", evidence of identification by the dog is admissible. However, on the facts, he found that it was unfair to allow such evidence where the dog simply followed a scent which might have been created pursuant to an innocent explanation or pursuant to an explanation consistent with the Crown case.

At one point in following the scent, the dog had stopped. The place at which it paused had the potential to be where the accused men had climbed over a fence in the course of a burglary. Starke J was loath to draw an adverse inference from the conduct of the dog and identified what he regarded as a significant limitation to the proper drawing of inferences from tracker dog behaviour (at p 9): To found an inference of guilt on the fact that a tracking dog which is snuffling and sniffing along the ground stops at a fence, to say that that means, and to say it without doubt, to say that establishes the applicant got over the fence there in my opinion is fanciful and I put it aside.

Anderson J agreed and commented that care needed to be taken when evidence of a tracking dog is led that no more is given, in effect, than the behaviour of the dog in the particular circumstances (at pp 11–12): It seems to me that in most cases it would be undesirable that a witness should give evidence of inferences that are to be drawn from the behaviour of the dog, because the dog cannot communicate what its thoughts are or what it is determining by the actions which it engages in.

Fullagar J disagreed, holding that evidence from an expert dog handler could be given about how a dog's tracking behaviour could be interpreted. He expressly purported to follow previous authority on the subject from Northern Ireland, Scotland and Canada. The most significant Australian authority on the admissibility of tracker dog evidence is the decision of the New South Wales Court of Criminal Appeal in *R v Barnes* (1988)²⁴ One of the grounds of appeal by the appellant in respect of a conviction for sexual penetration related to the warning given by the trial judge in respect of the activity of a tracker dog. The trial judge had warned that the jury needed to bear in mind that the dog was not able to be subject to cross-examination and that jurors needed to avoid overestimating the reliability of the operation of the dog's senses, so that they avoided too rapidly arriving at the conclusion which the Crown pressed upon them in respect of the dog's tracking activities. Speaking for the court, Gleeson CJ held that the warning given by the trial judge had been adequate.

In a further decision of the New South Wales Court of Criminal Appeal, further doubt was cast upon the utility of tracker dog evidence: *R v Benecke* (1999).²⁵ About an hour after a service station robbery, a dog handler arrived with his dog. The dog indicated human scent on a garden bed at the northern end of the station and followed it into a car park and through various garden beds. The dog's handler maintained that the dog could detect scent about an hour and 40 minutes old. He testified that human scent is most detectable if fresh and left on a soft surface. However, he said that scent is not difficult for a dog to detect on a hard surface like bitumen or concrete, especially if it is within an hour of the person having passed. The dog followed the scent intermittently, picking it up on soft surfaces and losing it on hard surfaces until it stopped at a fence where the handler testified that it behaved as though the scent continued over the fence. The accused had previously lived at the house.

At trial and on appeal, it was argued that the evidence leading the police to the house inside the fence was of little or no probative value. The court accepted the submission. First, Barr J, giving the decision for the court, noted that the scent had been picked up at a garden bed rather than inside the service station. Second, there was no evidence about whether the trail approached the place of the robbery or emerged from it. There was no evidence of whether the dog picked up the scent at its end or at its beginning or at some other point. Barr J also found that the scent may have been that of more than one person, and there was no evidence that the dog handler would have been able to discern if that had been so.

The Court of Appeal found that the potential for unfair prejudice was great and noted that the evidence of the behaviour of tracker dogs has been regarded as potentially unreliable: “the danger has been recognised that juries may place too much weight on the untested and untestable ability of a dog to track a scent” (at 284). In short, there was evidence which could not easily be tested by cross-examination and which might possibly show that the robber jumped the fence into the house at whose gate the dog stopped, but other inferences were equally open (at 284):

[F]or example, that there was more than one scent; that the person whose scent it was did not go into the premises ... but came out of them; that that person had nothing to do with the robbery, and that the scent or scents had been left by a police officer or police officers.

Taken at its highest and putting aside all its weaknesses, the evidence was capable only of showing that a person had been in the vicinity at about the time of the robbery. There was a risk that if the evidence about the behaviour of [the] dog were admitted, the jury might misuse it by combining it with a speculation that the appellant had returned to his old residence that night, and falsely concluded that the scent must therefore have been his. Because of the risks attendant upon the evidence, the court held that it should have been excluded. The decision of *R v Benecke* was relied upon to argue that the evidence of a police dog handler should not have been admitted in *Sever v The Queen* (2007).⁽²⁶⁾ The dog, Ellie, had been trained to detect accelerants and her responses were used as a screening tool to point forensic police to places from which samples might usefully be gathered, later to be analysed. The New South Wales Court of Appeal observed that it was the analysis of the accelerant that was probative, not any action undertaken by Ellie which was no more than part of a chain of events which led to the selection of locations at which samples were taken. It was held to be appropriate for the Crown to have called the evidence but in fact it did not matter whether the sampling was random or as a result of Ellie’s detection.

In *Muldoon v The Queen* (2008),²⁷ in spite of objection, evidence was permitted at trial by Senior Constable Wright in relation to the training received by the dog Haas, which he described as a proficient tracker and as never having failed accreditation tests, although it had required “remedial training” for gaming issues – picking up the scent of animals and becoming distracted – and had scored marks that had required it to be relegated to novice level. Senior Constable Wright gave evidence (at [15]–[17]) that the majority of the scent that can be picked up by a trained dog which comes off a freshly laid track is not human scent, but rather ground scent (eg, crushed vegetation):

Each individual also has a scent which falls down. This combines with the ground scent. Concrete and hard surfaces do not contain much scent other than that of the person laying the track, and the scent will dissipate depending on

the weather conditions, especially if it is hot. With grass or scrubland there is a lot more vegetation to contain and hold human scent, so the track will stay available for the dog to track for a lot longer; lush grass was ideal for tracking.

Wind can blow an individual scent a few metres off the true track, depending on its strength. It is up to the handler to stop the dog if the dog moves towards the individual scent. The handler needs to get an indication of the location of the true track. This is done by putting pressure on the lead. The dog then comes back and indicates the track along the ground again. Wright explained that there was a change in body language when a dog was not following the true track; a handler must consider factors such as wind direction and the lay of the land and use pressure on the tracking line to gauge the dog’s intent and bring the dog back to the true track.

In cross-examination Wright said that it was possible that a dog would indicate the presence of other people nearby, though experienced operational dogs would be well aware of the differences in scents when compared with the scent they were initially encouraged to follow. He added that humans smelt differently but agreed that he had no qualifications in biochemistry or in animal behaviour other than his operational experience and the courses he’d undertaken.

He gave evidence that Haas was taken to an area of lush grass and commanded to search for a track, of its locating clothing in a tree and then two males in lantana. Objection was taken to Senior Constable Wright’s evidence concerning the activities of the tracker dog on the basis that the prosecution had failed to establish Haas’ reliability or, alternatively, that the evidence was more prejudicial than probative.

The New South Wales Court of Appeal found that Senior Constable Wright’s training and experience were sufficient to qualify him to interpret the behaviour of the tracker dog in terms of indications that it was following human scent, the recency of the scent, and that its behaviour indicated human scent off the track that it was tracking. The court concluded (at [39]–[40]) that the training and experience of the witness

did qualify him to interpret the behaviour of the tracker-dog in terms of indications that it was following human scent, and the recency of that scent, and that its behaviour indicated human scent off the track that it was tracking. His ability to draw these inferences was sufficiently established by his evidence about his training and experience, and his extensive experience with the particular dog. It is true that the evidence did not make wholly transparent the process of reasoning giving rise to these interpretations; but in my opinion inferences of that kind are not such as could reasonably be expected to be supported wholly by explicit inferential steps.

The mark that the dog received for soft surface tracking in 2005 and 2006 did not make the evidence inadmissible. Senior Constable Wright gave evidence as to his experience of the reliability of the dog and of certain limitations in the dog’s performance. This evidence was not shown to be in any way unsatisfactory, by any detailed exploration of deficiencies that may have been disclosed by the particular marks in question.

The court found that criticism of the reliability of the evidence was adequately addressed during cross-examination and by the directions of the trial judge. In *R v Tamatea* (2013),²⁸ a decision of the Queensland

Court of Appeal, no error was identified with the reception at trial of expert evidence from a police sergeant about a police dog, “Jack”, having followed a scent and located the defendant. A sophisticated amalgam of evidence was given about Jack’s skills. An experienced dog squad instructor gave evidence as an expert that police dogs are trained to, and do, “scent discriminate” and that if the scent track is temporarily lost, when recast, the dog will track the same scent, not the freshest scent. The dog handler gave evidence of having trained Jack and ranking him in the top 10% of dogs he had trained. A previous handler of Jack gave evidence of training with Jack over distances considerably greater than the tracking loop in the present case. He was very confident of Jack’s ability to track human scent, both in a training environment and in an occupational environment. He said he had done over a thousand tracks with Jack, and that if Jack lost a scent he always went back to the original scent, and not a secondary one. He said it did not take an experienced police dog handler very long at all to learn the idiosyncrasies of a particular animal. No error was found on appeal with the reception of the evidence: “It was open to the jury to find that the tracking evidence was accurate and reliable, and it was open to them to be satisfied that the person tracked was the offender” (at [87]). See too *R v Lowe*.²⁹

New Zealand authority

In *R v Lindsay* (1970),¹⁸ the New Zealand Court of Appeal was called upon to determine whether the conviction of a man on a charge of breaking and entering into a factory was justified in light of the fact that the conviction was substantially dependent upon the evidence of a police constable as to the tracking activities of his dog. Turner J found the qualifying evidence from the handler in relation to himself and his dog to be satisfactory. It was contended on behalf of the appellant that evidence from the handler of a tracker dog should be held to be inadmissible on the basis that it was hearsay or worse.

It had previously been held that it is impermissible for the person giving the evidence to give evidence about what the dog was thinking at the material time: *R v Te Whiu* (1964).³⁰ Provided the handler “is in a position to describe the training of the dog and the behaviour of dogs generally in regard to the tracking of persons ... , then in my view he can simply state what happened on the occasion in question. In doing so he should not translate what he observed into terms, for example, of the dog following some person’s scent or track but I take the view that if Mr S succeeds in qualifying him as expert in regard to the characteristics of tracking dogs, and he succeeds in showing that this dog Duke was such a dog, then he can go on to give the evidence sought to be adduced as to what happened on this occasion” (at 748 per Woodhouse J).

In *R v Lindsay* (1970),¹⁸ it was also contended that even though it might be shown that the dog was highly trained and likely to lead to the person whose scent it had picked up, it might still make mistakes and the fact that it was impossible to cross-examine the dog might result in the mistakes remaining undetected. This, in general terms, appears to have been an argument that the trial judge should have used his discretion to exclude the evidence as more prejudicial than probative. Taylor J rejected the submission and found the evidence to be admissible, provided that there were suitable safeguards in place. He distinguished tracker dog evidence from standard scientific evidence (at 1005):

The two are widely different, because the dog being a creature with some faculty of choice, its actions must be clearly distinguishable from the result of the mechanical

impact of one inanimate object or substance upon another. The dog may conceivably be mistaken or wilful, in what it does.

This is an important concession in that it characterises tracker dog evidence as inherently fallible in a way in which much laboratory evidence is not. However, Taylor J determined (at 1005–1006):

Once the dog-handler has properly qualified himself and his dog (and this should be done with scrupulous thoroughness before the evidence can be thought acceptable), his evidence as to what the dog did in following a scent is material and relevant evidence, much more likely to lead to a true than to an erroneous conclusion, though ... some limitations and safeguards should be prescribed ... The weight of the evidence should always be carefully examined by the trial judge in his direction to the jury.

What would constitute a sufficient direction to the jury was not enunciated by Turner J, but he found (at 1006) that it was the duty of the trial judge to “draw attention to such matters as the nature of the conclusion to which the jury is asked to come on the evidence, and the dangers and risks of too readily arriving at the conclusion from evidentiary material which has not to pass the acid test of cross-examination”.

Turner J also made a point of stressing that dog tracker evidence should not be permitted to “expand beyond fairly strict limits”. He emphasised (at 1006) that qualification will include a description of the course which the dog took in following the scent – where it started and where it went: “But when the witness has gone so far, the possible danger which follows from allowing him to go further becomes immediately apparent. Care must be exercised lest any over-readiness to permit peripheral testimony should result in unfairness to accused persons.”

In *R v McCartney* (1976)³¹, the crucial evidence against the accused men who were charged with dishonesty offences was evidence that a tracker dog had followed the scent of McCartney from a point where he had been seen to the place where shotguns and other objects had previously been found and removed by police. He appealed on the basis that the trial judge had not directed the jury as required in *R v Lindsay*.¹⁸ McCarthy P for the court acknowledged the risks of tracker dog evidence as set out by Turner J in *Lindsay* and conceded that a jury might draw greater inferences from the actions of the dog than were truly justified and that a jury “might be misled into giving excessive credit to the evidence of the dog’s itinerary because of a superstitious faith in the inerrant inspiration of dogs, induced by ‘the mysteriously accurate operation of the dogs’ senses’” (citing *Wigmore on Evidence* (3rd ed), Vol 1, para 177). In the particular case, the police constable had given evidence, based on the behaviour of the dog, the freshness of the scent, and the habit of tracker dogs to follow the most recent human scent. McCarthy P held (at 478):

Although we appreciate that *Lindsay*¹⁸ ... acknowledges that the extent to which a judge must deal with the weight of the tracker dog evidence in each particular case must vary according to the extent that the reliability of the dog’s tracking ability is supported by other evidence, nevertheless we cannot interpret the judgment otherwise than as laying down a rule that in every case where such evidence is relied on by the Crown the judge must at least draw the attention of the jury to (a) the nature of the conclusion to which they are asked to come on the tracker dog evidence and (b) the

risks of arriving at that conclusion from evidentiary material which has yet to pass the acid test of cross-examination.

Canadian authority

In the early British Columbian case of *R v White* (1926),¹⁵ evidence regarding the behaviour of tracker dogs was held inadmissible on the basis of its potential unreliability. However, the contrary position was authoritatively taken by the Court of Appeal of British Columbia in *R v Haas* (1962),³² where it was determined that once the qualifications of a tracking dog to follow a scent and the qualifications of the dog's trainer to handle the dog are established, evidence of the tracking of a person by a dog by means of a scent from the scene of a crime is admissible. The only question is the probative value which should be ascribed to the evidence. The court declined to articulate specific guidelines in relation to such evidence, but Davey JA noted that it was clear "that the jury will have to be properly instructed on the value and weight of such evidence and on the safeguards to prevent injustice resulting from its admission" (at 175).

In *Haas*, the Crown, though, failed to tender any evidence of the breed of the dog – a German shepherd – and the nature and extent of its training and skill in tracking. Davey JA held (at 174; see also at 176 per Wilson JA):

The evidence tendered should not be admitted unless the Crown first establishes the qualifications of the dog and its trainer. It is the dog's propensities and skills that make the evidence of what the dog did admissible, just as it is a witness's qualifications and training that establishes him as an expert and makes his opinion admissible. The qualifications of the dog, like those of an expert, must be proved.

Wilson JA held that it would be improper to take judicial notice of the propensities and skills of particular breeds of dogs, but was prepared to take judicial notice that some dogs have the ability to track people (at 175).

Similarly, it has been affirmed that evidence that a properly trained tracking dog followed a scent is admissible if relevant to a fact in issue: *R v Holmes* (2002, at 357)³³. In *R v Klymchuk* (2005)³⁴, the Ontario Court of Appeal dealt with the admissibility of evidence from the prosecution that the fact that a tracking dog did not pick up any scent at a murder crime scene was consistent with the proposition that a break-in had been staged. The Court of Appeal (at [70]) held that "evidence that the dog may have missed a scent that was there, or may not have detected a scent for a variety of other reasons, went to the weight to be given to the failure to pick up a scent". It held that a warning by the trial judge about the dangers of the tracker dog evidence was sufficient and that there was not an appealable error in reception of the evidence.

Indian authority

Indian authority about dog tracker evidence has been disuniform. In *Dafedar v State of Maharashtra* (1969 at [11])³⁵ it was noted that:

There are three objections which are usually advanced against the reception of [dog tracking evidence]. First, since it is manifest that the dog cannot go into the box and give his evidence on oath, and consequently submit himself to cross-examination, the dog's human companion must go into the box and report the dog's evidence, and this is clearly hearsay. Secondly, there is the feeling that in criminal cases the life

and liberty of a human being should not be dependent on canine inferences.

It was further observed that:

The tracker dog's evidence cannot be likened to the type of evidence accepted from scientific experts describing chemical reactions, blood tests and the actions of bacilli, because the behaviour of chemicals, blood corpuscles and bacilli contains no element of conscious volition or deliberate choice. Dogs are intelligent animals with many thought processes similar to the thought process of human beings and wherever there are thought processes there is always the risk of error, deception and even self-deception. For these reasons we are of the opinion that in the present state of scientific knowledge of dog tracking, even if admissible, is not ordinarily of much weight.

However in 1993 in *Shaikh v State of Maharashtra* (1969)³⁶ where a tracker dog, Kumar, located the bag and clothes of a suspect, and led police to the house of the suspect, the admissibility of such evidence was scrutinised and a more receptive approach to the evidence was forthcoming.

The Bombay High Court was prepared in principle to receive the evidence:

That a tracker dog cannot be influenced is something strongly in its favour and what lends this class of evidence a special blend of acceptability. On the question of margin of error, experience has shown that the special skills of a tracker dog outclass all other forms of detection, even sophisticated gadgetry. It is now universally acknowledged that in detecting drugs, where every other form of human ingenuity and gadgets are capable of being eluded, that it is virtually impossible to avoid detection when a trained tracker-dog is used, explaining why this mode is found to be the most reliable and fool-proof. Similar has been the experience in cases of robbery, murder and the like where the scent is fresh and the area not too crowded. Statistics have shown that in many cases dogs have been unsuccessful in detection due to limiting factors, but that wherever they have tracked down an object or a culprit that the dog was never wrong. Such evidence will, therefore, have to be categorised as being of the highest order and reliability.(at [2])

The court reviewed international authorities and held that the following guidelines must be borne in mind in determining whether to admit the evidence:

- (a) That there must be a reliable and complete record of the exact manner in which the tracking was done and to this extent, therefore, in this country, a panchnama in respect of the dog tracking evidence will have to be clear and complete. It will have to be properly proved and will have to be supported by the evidence of the handler.
- (b) It will be essential that there are no discrepancies between the version as recorded in the panchnama and the evidence of the handler as deposited to before the Court.
- (c) The evidence of the handler will have to independently pass the test of cross-examination.

- (d) Material will have to be placed before the Court by the handler, such as the type of training imparted to the dog, its past performance, achievements, reliability, etc., supported, if possible and available, by documents. (at [8]).

Ultimately, it concluded that: It is scientifically accepted that dogs are rated as extremely intelligent animals and that some of their sensibilities are very highly developed and are extremely reliable. It is also to be noted that there are some breeds of dogs and some strains which are specially utilised for hunting and tracking because of their abnormally high talents. If the dog belongs to one of these categories and if it is shown to the Court that it has been specially trained for purposes of detection, not only would the dog-tracking evidence will be admissible, but it will have to be relied upon as being evidence of a very high calibre. (at [9]).

However, by 2001 there was a reversion by the Supreme Court of India to earlier authority. In *Ramesh v State of Assam* (2001, at 2006)³⁷ it was observed by the Supreme Court that:

There are inherent frailties in the evidence based on sniffer or tracker dogs. The possibility of an error on the part of the dog or its master is the first among them. ... The possibility of a misrepresentation of a wrong inference from the behaviour of the dog could not be ruled out. Last, but not the least, is the fact that from a scientific point of view, there is little knowledge and much uncertainty as to the precise faculties which enable police dogs to track and identify criminals. ... Investigating exercises can afford to make attempts or forays with the help of canine faculties but judicial exercise can ill-afford them.

Similarly, following *Dafedar* and *Ramesh*, in *Borthakur v State of Assam* (2008)³⁸ the Supreme Court held that: “The law in this behalf, therefore, is settled that while the services of a sniffer dog may be taken for the purpose of an investigation, its faculties cannot be taken as evidence for the purpose of establishing the guilt of an accused.”^{39,40}

United States authority

After the early mistrust of tracker dog evidence (see above), the majority of United States jurisdictions that have addressed the issue have held that evidence of the tracking by dogs of the scent of a suspected criminal is admissible to prove the identity of an accused provided that a proper foundation has been laid for the reception of the evidence: see eg *State v Wilson* (1980)⁴¹ at 935; *Roberts v Maryland* (1983)⁴² at 446. The Kentucky Supreme Court enunciated the basic principles that remain applicable (*Pedigo v Commonwealth* (1896), at 145; followed in *Terrell v State of Maryland* (1968).⁴³

It may be safely laid down that, in order to make such testimony competent, even when it is shown that the dog is of pure blood, and of a stock characterised by acuteness of scent and power of discrimination, it must also be established that the dog in question is possessed of these qualities, and has been trained or tested in their exercise in the tracking of human beings, and that these facts must appear from the testimony of some person who has personal knowledge thereof. We think it must also appear that the dog so trained and tested was laid on the trail, whether visible or not, concerning which the testimony has been admitted, at a point where the circumstances tend clearly to show that the guilty party had been, or upon a track which such circumstances indicated to have been made by him. When so

indicated, testimony as to trailing by a bloodhound may be permitted to go before a jury for what it is worth, as one of the circumstances which may tend to connect the defendant with the crime of which he is accused.

A further subtlety was analysed in *Roberts v Maryland* (1983)⁴², where a “dog line-up” took place with the accused standing in the middle of a line of four officers.^{44,45} The dog, Sniffer, already knew all four police officers. Evidence established that Sniffer was a purebred bloodhound, trained according to the manual of the National Police Bloodhound Association. The dog had a 99% success rate in practice trailing and only once had been temporarily distracted from the scent he had been commanded to trail. He had been used in 20 previous cases with a success rate of 85%, the rate being defined in terms of the dog following the trail to the end of the scent, as determined by other facts in the investigation, or finding what it was scenting. Sniffer’s trainer testified, in respect of the important matters, that in his experience the dog was not distracted by people, noise, dogs or guns. The court found that the line-up was properly conducted as it was the scent, not the familiarity, which guided the dog’s nose and the evidence, was held to have been properly admitted against the accused.

In 2013, in *Florida v Jardines* (2013),⁴⁶ the United States Supreme Court, by majority, concluded that the use by the government of trained police dogs to investigate the home and its immediate surrounds constituted a search within the meaning of the Fourth Amendment to the Constitution, whose “very core” protects “the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion”. This decision will limit to some degree the use that can be made of the skills of both sniffer and tracker dogs in the United States.

Conclusion

Tracker dog evidence can be highly influential in criminal prosecutions but, if not carefully scrutinised for the strength of its bases, it can be more prejudicial than it is probative. While initially courts expressed serious reservations about the reception of such evidence, in the modern era, other than in India (see above), courts have become considerably more receptive to it, provided that the necessary underpinnings of the dog handler evidence are properly established.

With the exception of India and possibly South Africa,⁴⁷ there is now a relatively uniform position internationally with respect to the circumstances in which tracker dog evidence can be admitted against an accused person. First, the qualifications of the dog handler must be properly established, in general, and then evidence must be given in relation to the behaviour and skills of the particular tracker dog.⁴⁸ There must be detailed basis evidence about the reliability of the dog breed, and about the skills and reliability of the individual dog as a tracker, before evidence can properly be adduced from a dog-handler about the particular tracking of a scent by a specific dog.⁴⁹⁻⁵⁵

Courts need to be informed about the dog’s training (which in Australia and New Zealand tends to be modelled on English Home Office guidelines), about its success rates in detection and its susceptibility to distraction, such as by irrelevant scents, cats, or other dogs. The handler needs to be in a position to give detailed evidence about the process, sequence and outcome of the tracking, preferably supported by contemporaneously or near contemporaneously compiled notes. It should be made apparent where the dog picked up a scent and there needs, in effect, to be continuity in the dog’s pursuit

of the scent. Information should also be available about the kinds of surfaces over which the dog apparently pursued the scent. The trial judge needs to administer to a jury, where there is one, a warning that such evidence should be evaluated in terms of the facts of the particular case, and that it falls into the category of evidence in respect of which special care needs to be exercised because, as identified in *Dafedar v State of Maharashtra* (1969, at [11]),³⁵ the ultimate source of the evidence, the dog, is not able to be made subject to the usual check and balance of the court system—cross-examination.

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Conflicts of interest

The author declares he has no conflict of interest.

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