Article –

The polygraph and Luke Mitchell – gimmick or overlooked forensic tool?

Admissiblity of evidence of lie detector tests:

1. A polygraph examination undertaken by Luke Mitchell in April 2012 – now posted online – is being considered by the Scottish Criminal Cases Review Commission. [1] A further polygraph, of Mitchell's mother, has also been submitted. There is no Scottish precedent and the SCCRC has never considered polygraph evidence in any prior cases. What is most surprising is that while this is not the first convicted accused to consider such a last throw of the dice, no one seems to have gone quite so far down this route before in Scotland – voluntarily taking a test to substantiate his defence.

2. Compulsory polygraph tests might soon be countenanced in contexts far removed from the Jeremy Kyle Show. One growth area might be the risk assessment and post-conviction supervision of sex offenders released on license. [2] Though deployed for employment vetting or screening in sensitive areas – such as the intelligence services (where concerns about their imperfections are tempered by their perceived deterrent value) – there has been little enthusiasm in the criminal trial process.

3. The difficulty is that our Courts have never previously recognised that the operators of such machines are properly qualified expert witnesses. They have admitted fingerprinting and DNA evidence and other scientific advances where a reasonable degree of certainty has been reached. This may well reflect concerns in the scientific community about the 'pseudo-science' of polygraphy. [3]

Lie detector testing:

4. The principle is that lying makes people anxious – and that anxiety can be quantitatively measured. A polygraph (commonly referred to as a lie detector) is an instrument, which measures and records several physiological responses caused by the sypathetic nervous system during questioning – such as pulse, blood pressure, respiration, skin conductivity – sometimes voice and eye movements – on the basis that false answers will produce distinctive measurements. A specific physiological lie response has never been demonstrated and is unlikely to exist. The purpose is to establish a psychological set in the examinee, which will

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[1] Published online on 12 January 2012: http://www.youtube.com/watch?v=boKXAggpHoQ

[2] Hertfordshire Police are operating a pilot scheme on sex offender suspects (31 December 2011) *BBC*:

http://www.bbc.co.uk/news/uk-16371043

See also: Lie-test plan for sex offenders" (1 December 2006) *BBC*: "Polygraph conditions for certain offenders released on licence" *Office of Public Sector Information*

The difficulty is that post-conviction testing might be perceived as coercive, rendering informed consent illusory – see British Psychological Society: *A Review of the Current Scientific Status and Fields of Application of Polygraphic Deception Detection.* Report (26/05/04) from the BPS Working Party at:
http://www.bps.org.uk Accessed September 10, 2010

[3] *United States v. Henderson*, May 23 2005; Iacono, W.G., Forensic 'lie detection': Procedures without scientific basis' *Journal of Forensic Psychology Practice*, Vol. 1 (2001), No. 1, pp. 75 – 86.

But see Don Grubin, MD, Newcastle University, *The Polygraph and Forensic Psychiatry*, at:

http://www.jaapl.org/content/38/4/446.full

increase the likelihood that any observed arousal to specific questions is the result of deceptive responses. The responses it measures are not unique to deception – nor are they always engendered by it. Several other technologies are also used in the field of lie detection, but the polygraph is the most notorious.

5. The difficulty with this underlying hypothesis is that lying often makes some people slightly anxious. And anxiety can sometimes be correlated with things that can be inaccurately measured.

6. The science has been around for a long time. But has never been investigated sufficiently to be either accepted in the way that DNA has been – or rejected, as phrenology; the XYY chromosome; or the administration of 'truth drugs' has been. Systematic, extensive, objective normative data may exist – but seems to be lacking. So, if this is the position, it may be that the science is untested – rather than being flawed or disgraced. It is clearly not hard science – but, then again, neither is psychology.

7. It is not immediately apparent what qualifications are needed to be a polygraph examiner. In practice such machines are frequently operated by persons, who though no doubt expert in their use, have no psychiatric or other medical expertise – thus placing their evidence outside the ambit of existing authorities on the admission of evidence of state of mind. [4] [5]

8. Historically, there has been an aversion to their use in this country because of their perceived lack of reliability. Problematically, they have been perceived not to work on psychopaths or sociopaths – adept at lying, they have the 'advantage' of being able to control the physiological response to their emotions (having generally low arousal levels) and 'beat' the polygraph. But what evidence there is indicates that psychopathy does not necessarily provide 'protection' – and that they respond in a similar manner to other individuals. [6]

9. It remains moot whether the mentally ill can make useful subjects. And when you consider the number of serving prisoners with mental disorders of some form – very possibly undetected – general application would appear to be futile.

Countermeasures:

10. Polygraph tests measure agitation under questioning – and not the truthfulness of response. So techniques to suppress agitation can be learned that the test might be confounded. The internet provides ample instruction.

11. Most obviously, if there is no correlating requirement to submit to a drug test, sedatives or mood stabilizers can allow for more 'effective' lying.

12. Controlled breathing and answering during exhalation seems to help. Apparently, the easiest way to fool the machine is for the subject to try and think of a wild experience – making him very excited at every question he is asked – and increasing his heart rate. If he were being asked about a killing with a sexual dimension, he might, when facing initial innocuous control

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[4] See *Phillion v R.* (1977) 74 D.L.R. (ed) 136 at 140 – which was cited in *Expert Evidence: Law and Practice*, 2nd edition, Tristam Hodgkinem and Mark James, 2007, at 14-020.

[5] Such as *Turner* [1975] 1 Q.B. 834

[6] See Don Grubin, MD, Newcastle University, *The Polygraph and Forensic Psychiatry*, at:

http://www.jaapl.org/content/38/4/446.full

questions, focus on something, which sexually arouses him. Or he might place a tack in his foot, or bite the inside of his mouth – so that when responding to a question, which the examiner knows will yield a truthful answer, he can create pain – thus misleading the machine. This will make it seem that he is lying on responses, which the examiner knows are true. And when he has to lie about the crime, he just lies. In this way the results will not show a significant reaction to any of the relevant questions – thus yielding an 'inconclusive' result. Think of the way Michael Cane's Harry Palmer uses pain to resist the brainwashing procedure in *The Ipcress File* – though it is lot easier to fake it if you are a psychopath.

13. There is a widespread belief that it can be easily beaten or that it 'doesn't work' and has been 'discredited'. [7]

14. Nonetheless, the innocent might be best advised to shun the machine like a plague. There is a serious risk of it guessing wrong – particularly with the naturally agitated.

Relevant law:

15. There no Scottish precedent for polygraph evidence to be admitted in criminal or civil proceedings – although there is currently a case before the Court of Session which will consider whether polygraph evidence can be led.

16. Meanwhile, the issue has not arisen in any reported English criminal case. But the matter has at least been addressed in a civil context.

17. *Fennell v Jerome Property Mainetenance Ltd*., Queen's Bench Division [Judgment November 21, 1986] *Times*, November 26, 1986
Mr. Justice Tucker held that as a matter of principle, evidence produced by the administration of a mechanically or chemically or hypnotically induced test on a (plaintiff) witness so as to show his veracity or otherwise, was not admissible in an English court of law. He felt that there was something inherently wrong in admitting such evidence. It would usurp the function of the trial court (though he was not concerned in this context with usurping the function of trial juries). He disliked the thought that any mechanically or chemically or hypnotically induced test should seek to show the veracity or otherwise of a witness. Furthermore, to adduce such evidence, even if it were favourable to the plaintiff, would have the plain result of introducing previous consistent statements.

18. It is stated in the English text *Phipson on Evidence*, 16th edition, 2005, in relation to a general discussion on expert opinion, at paragraph 33 – 13:

> "It is … possible to adduce psychiatric evidence to impugn a witness's veracity, though only for the purpose of showing that he is incapable of giving reliable evidence, and not for the purpose of warning the jury only that he may not be giving such evidence. There is as yet no reported English authority on the admissibility of the results of tests conducted with the aid of polygraphs (lie-detectors) for the purpose of assessing the credibility of a witness. It might be thought that this question is pre-eminently one for the jury rather than an expert witness or a machine programmed by an expert[8], but conflicting views have been taken in Canada on the point. [9] The difference between this class of evidence as to veracity and that of ordinary

[7] See Don Grubin, MD, Newcastle University, *The Polygraph and Forensic Psychiatry*, at:

http://www.jaapl.org/content/38/4/446.full

[8] See *R v Turner* [1975] Q.B. 834; *DPP v Jordan* [1977] A.C. 699

[9] See below

> psychiatric evidence is that being obtained by purely mechanical means, the expertise involved is concerned with an assessment of the likelihood of certain purely physical effects of certain kinds of conduct, together with, to a lesser degree, an effective means of accurately measuring such effects. The evidence of such a test is in reality little different from a police officer giving evidence that during an interview the accused shuffled, stammered or sweated profusely. [10] While a jury might draw certain conclusions about the truthfulness of a man who behaved in this way as a result of their own intuitions about human behaviour, it is thought that such evidence would be inadmissible, in part at least because the conditions of a police interrogation are so different from the ordinary circumstances of life to which the jury and the accused are accustomed. For the same reason, we do not think that evidence of the results of polygraph tests would be admitted in England in their present state of development."

ECHR:

19. Accused or convicted persons do not have any Convention or human right to be polygraphed. Quite the contrary. They have a Convention right not to submit. The right to the presumption of innocence, the right to silence and the privilege against self-incrimination (in terms of Article 6(2) – and our Ancient Liberties) precludes compulsory submission to such a procedure by suspects in criminal cases.

20. The Strasbourg Court has also rejected the use of lie detector tests:

21. In *A v Germany* (1984) the European Commission held that the rejection of a request to be interrogated with the use of a lie detector did not render proceedings unfair under Article 6 and Article 6(3)(c), E.C.H.R. The applicant had been convicted of a sexual murder. He argued that the decision of the domestic court to reject his request to be interrogated by a lie detector had violated his right to a fair trial. The Commission found no evidence that the trial had been in any way unfair: the trial court had taken extensive evidence, hearing various witnesses and experts; it considered documentary evidence; there was nothing to suggest that it had disregarded any vital evidence. The Commission, referring to the reasoning of the Federal Constitutional Court, held that on the present state of knowledge, it was not possible to obtain fully reliable results by the use of a lie detector. In such circumstances there was no general right for the use of a lie detector to be granted to suspected or convicted persons. The authorisation of some to use a lie detector would inevitably compromise the position of others who would refuse to submit – their refusal possibly being interpreted as a sign of guilt. [11] [12]

Canada:

22. The Supreme Court of Canada excluded such tests in *R v Phillion* (1973). [13] But its decision was not followed in British Columbia in *R v Wong* (1977). [14] In *R. v. Béland* (1987) the Supreme Court of Canada rejected the use of polygraph results as evidence in court – not because the results themselves may be inaccurate, but because: (a) admission would conflict with the principle that evidence is inadmissible for the purposes of bolstering a witness's

[10] See also *Expert Evidence: Law and Practice*, 2nd edition, Tristam Hodgkinem and Mark James, 2007, at 14 – 020

[11] *A v Germany* (1984) 6 E.H.R.R. C.D. 360

[12] The Federal Court of Justice of Germany ruled that polygraph evidence is inherently inconclusive and inadmissible. Motions by prosecution or defence for polygraph tests will be declined under any circumstance – Bundesgerichtshof: Entscheidungen vom 17.12.1998, 1 StR 156/98, 1 StR 258/98.

[13] *R v Phillion* (1973) 53 D.L.R. (3d) 319

[14] *R v Wong* [1977] 1 W.W.R. 1

credibility; and (b) admission would disrupt proceedings, cause delays and lead to numerous complications. Concerns were expressed as to whether the other party be allowed to commission its own polygraph tests in rebuttal and whether the accused would be obliged to disclose unfavourable results? [15] [16] Nonetheless, this decision has not affected the continuing use of the polygraph as a forensic tool in Canadian criminal investigations.

Australia:

23. The High Court of Australia has not yet considered the admissibility of polygraph evidence. But the New South Wales District Court rejected the use of the device in a criminal trial. In *Raymond George Murray* (1982), Sinclair DCJ refused to admit polygraph evidence tending to support the defence. [17]

    He rejected the evidence because:

    - The veracity of the accused and the weight to be given to his evidence, and other witnesses called in the trial, was a matter for the jury.
    - The polygraph "expert" sought to express an opinion as to ultimate facts in issue, which is peculiarly the province of the jury.
    - The test purported to be expert evidence by the witness who was not qualified as an expert; he was merely an operator and assessor of a polygraph. The scientific premise upon which his assessment was based had not been proved in any Court in Australia.
    - Devoid of any proved or accepted scientific basis, the evidence of the operator was inadmissible hearsay.

24. The Court cited, with approval, the Canadian case of *Phillion v R* (1977). [18]

25. The Court of the Supreme Court of Western Australia has also ruled the results of polygraph tests (supplemented by a truth drug) as inadmissible – principally on the grounds of the unreliability of the process. [19]

United States:

26. The US courts have generally tended to exclude the results of polygraph tests from criminal trials. Suspects need not submit to any test since they have a constitutional right – under the Fifth Amendment – to refuse to incriminate themselves.

27. In *United States v Scheffer* (1998) the U.S. Supreme Court left it up to individual jurisdictions whether polygraph results could be admitted as evidence in court cases. [20]

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[15] *R. v. Béland* [1987] 2 S.C.R. 398

[16] See *Expert Evidence: Law and Practice*, 2nd edition, Tristam Hodgkinem and Mark James, 2007, at 14 – 020

[17] *Raymond George Murray*, 1982 7A Crim R48

[18] *Phillion v R* [1978] 1 S.C.R. 18; (1977) 74 D.L.R. 136

[19] *Mallard v The Queen* [2003] WASCA 296

[20] *United States v Scheffer* 523 US 303 (1998)

28. Polygraph testimony is admissible by stipulation in over 20 states, subject, that is, to the discretion of the trial judge in federal court. [21] The use of polygraph in court testimony remains controversial, although it is used extensively in post-conviction supervision – particularly of sex offenders. While polygraph tests are commonly used in police investigations, no defendant or witness can be forced to submit to the test. The State of New Mexico does admit polygraph testing in front of juries under certain circumstances. [22]

Conclusion:

29. While there is no Scottish precedent, any attempt to introduce lie detector evidence (bearing upon the veracity of this appellant) is likely to be ruled inadmissible in Scottish criminal proceedings – on general principles – as it performs little more than the jury's function and probably does not illuminate particular aspects of an individual's mental state, whether at the time of the offence or otherwise. [23] The Appeal Court would almost certainly hold that it is inherently wrong to admit such evidence, on the basis that it would usurp the function of the trial court or jury. [24]

30. After all, why should somebody in a white coat be able to pontificate on witness credibility – when the reporting officer close to the investigation cannot do so – and when a jury is perfectly placed to make such assessments, on the basis of ordinary human experience? In the final analysis the evidence of a polygraph examination is in reality little different from a police officer giving evidence that during his police interview/interrogation an accused shuffled, stammered or sweated profusely. While the police officer can give evidence of his physical observations, he is not permitted to say that on the basis of these observations, he thought that a suspect was lying (or telling the truth). Yet this is precisely the type of opinion evidence, which a polygraph or similar examiner claims to be able to provide. [25]

31. The point is that the veracity of Mr. Mitchell and the weight to be given to his evidence (albeit ventilated through his police interrogation) was pre-eminently a matter for the jury – rather than any subsequent expert witness or a machine programmed by such an expert. [26] [27]

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993) the Supreme Court broadened the test for admissibility of expert evidence – giving judges the freedom, on a case-by-case basis, to make decisions about whether to admit the evidence of experts, including polygraph examiners – depending on its relevance; reliability; and the extent to which scientific standards were met.

[21] Although jurisdictions vary in their use of the *Daubert* principles, polygraph evidence has been allowed in 9 of the 12 federal circuits.

[22] Sex offenders have repeatedly tried unsuccessfully to challenge the principles and practice of post-conviction sex offender testing. In *McKune v. Lile*, 224 F.3d 1175 (10th Cir. 2000), rev'd, 536 U.S. 24 (2002), the Supreme Court stated that it is: "a sensible approach allowing prison administrators to provide to those repeat sex offenders who need treatment the incentive to seek it…;. [It does not] amount to compelled self-incrimination." That might well depend on how intrusive and expansive is the questioning.

[23] See *Expert Evidence: Law and Practice*, 2nd edition, Tristam Hodgkinem and Mark James, 2007, at 14 – 020. This would mirror the position in England – see *Expert Evidence: Law and Practice*, 2nd edition, Tristam Hodgkinem and Mark James, 2007, at 14 – 020

[24] *Fennell v Jerome Property Mainetenance Ltd*., Queen's Bench Division, [Judgment November 21, 1986] *Times*, November 26, 1986

[25] See *Phipson on Evidence*, 16th edition, 2005, at paragraph 33 – 13; also *Expert Evidence: Law and Practice*, 2nd edition, Tristam Hodgkinem and Mark James, 2007, at 14 – 020

[26] *Raymond George Murray*, 1982 7A Crim R48

But it must surely count in Mitchell's favour that he and his principal witness – who confirms that he was with him at the time of the offence – both passed a lie detector test. If one of them had 'failed', it would have been all over. Then again, this would only be meaningful in the unlikely event that the Appeal Court was convinced that polygraphy has gained sufficient acceptance within the scientific community to be truly considered scientific evidence. Otherwise, the polygraph test is simply evidence that Luke Mitchell and his mother have passed a polygraph test – and is not evidence of his innocence.

32. Where the accused has not given evidence – then the self-serving or exculpatory aspect of his account to the polygraph's operator – if his expert credentials are denied – is likely to be regarded as objectionable hearsay. [28]

33. It might also be difficult to argue that this 'new' account of Luke Mitchell amounts to fresh or additional evidence in circumstances in which he did not give evidence at his trial. This might well be regarded as a manoeuvre to get round the decision not to give evidence at trial.

34. On the present state of knowledge, it would seem that it is simply not possible to obtain fully reliable results by the use of a lie detector. [29] The scientific premise upon which any such assessment would be based has not been established in any Scottish or English Court – and is unlikely to be until such time as the science obtains mainstream recognition. And if the operator is not deemed to be an expert postulating something, which does not have a proven or accepted scientific basis, the evidence of what the accused says to its operator would be inadmissible hearsay. [30] So, to adduce such evidence would have the plain result of introducing 'prior consistent statements' – which hardly illuminates aspects of the appellant's mental state as at the time of commission of the offence, particularly at this advanced stage in (post-appellate) proceedings. [31] [32]

35. The Court would also be obliged to take into account adverse public policy considerations, inevitably precluding such 'evidence' on the basis of 'floodgates theory'. Admission would disrupt proceedings, cause delays and lead to numerous complications. [33] Consider: every convicted accused would have absolutely nothing to lose by now exploring this line of enquiry. A situation would emerge where if some accused were authorised to use a lie detector, this would inevitably compromise the position of those who refused to submit to this procedure, their refusal possibly being interpreted as a sign of guilt. [34] This could be a basis for cross-examination – particularly in multiple-accused 'cut-throat' defence situations. That would be far from satisfactory. The Crown might also wish to instruct its own polygraph tests in rebuttal.

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[27] See *R v Turner* [1975] Q.B. 834; *DPP v Jordan* [1977] A.C. 699

[28] *Morrison v HM Advocate*, 1990 J.C. 299; 1990 S.C.C.R. 235; 1991 S.L.T. 57

[29] *A v Germany*, (1984) 6 E.H.R.R. C.D. 360

[30] *Raymond George Murray*, 1982 7A Crim R48

[31] *Fennell v Jerome Property Maintenance Ltd*., Queen's Bench Divisionon, [Judgment November 21, 1986] *Times*, November 26, 1986

[32] See *Expert Evidence: Law and Practice*, 2nd edition, Tristam Hodgkinem and Mark James, 2007, at 14 – 020

[33] See *R v Beland* [1987] 2 S.C.R. 398

[34] *A v Germany*, (1984) 6 E.H.R.R. C.D. 360

36. So the rejection of such 'expert' evidence does not engage any issue of unfairness under Article 6 or Article 6(3)(c), E.C.H.R. [35] To recap – the jury is deemed best placed to assess the credibility of the appellant.

37. As for the uploading of the test footage into the public domain, it seems that no prison rules were broken and Luke Mitchell does have a post-conviction right to freedom of expression. [36]

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[35] *Ibid*

[36] http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-21060864