

Counter-Terrorism and Sentencing Bill 2019-21 (the Bill)

Written evidence to the House of Commons Public Bill Committee

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The Proposed Polygraph Measure in the Bill

Executive Summary

1. We caution against the introduction of the proposed polygraph measure as set out in clause 41 of the Bill. The U.K. should not base its **deterrent strategies** on pseudoscientific methods which raise considerable rule of law concerns.

2. The use of the polygraph raises **serious methodological and conceptual issues**: lack of validity, lack of consistency, and the necessity to use deception and psychological manipulation in order to convince the subject that the polygraph works. The polygraph test is not a neutral truth-conducive device –it does not detect anything. It is an oppressive **interrogation tool**.

3. The utility of the polygraph consists in the **bogus pipeline effect** and **interrogative suggestibility**. The subject operates on the wrongful basis that the polygraph test a) works independently and b) will reflect his/her true attitude. Because the subject does not wish to be second-guessed by the machine, he/she will feel pressured to disclose adverse statements.

4. The 'accuracy rate of 89%' (see Home Office, [Factsheet](#)) refers to **laboratory settings** which are **wildly different** from any practical context in the criminal justice system.

5. The Bill's ECHR Memoranda fails to address the serious Article 8 and Article 5 issues arising due to the lack of validity of the polygraph method. If the polygraph is introduced, the licence recall would by law need to be **subject to independent oversight**.

7. Even from the viewpoint of its own logic the polygraph cannot deliver what the legislator intends: protection of the public. On the contrary, the polygraph leaves **major security threats undetected**.

8. The use of unreliable methods in siloed parts of the criminal justice system (context of probation) fragments the **unity of law**.

9. Our analysis based on data gathered through **FOI requests** confirms that there are **significant structural inconsistencies in the way polygraph tests are conducted across England and Wales**, suggesting an urgent need for a transparent and critical review of current practices before further polygraph measures are introduced.

Validity and deterrent effect

1. Ever since the first deployment of the polygraph in the first quarter of the 20th century, criminal courts, scientific institutions, military organisations, and last but not least, academic discourse have continuously and almost unanimously discredited the polygraph as regards its validity in fact-finding processes. In every western legal order that we know of, **polygraph evidence does not pass the admissibility test**. To be more precise, the efforts to introduce the polygraph or other unscientific methods into the criminal process have, historically, shaped the criteria for the admissibility of expert evidence. The polygraph test is not a neutral truth-conducive device –it does not detect anything. On the contrary, it is an interrogation tool in which the extraction imperative is secreted under the veil of technology (Alder 2007; Kotsoglou 2020; Oswald 2020).

2. It has been known for decades that the value of the polygraph is rather its **deterrent effect** than its truth-conducive character (Kotsoglou 2017; Lee 1952; Oswald 2020). The U.K. cannot afford to build its deterrent strategies on pseudoscientific methods which can easily be bypassed. The question is whether the reliability of methods, the rule against oppression and the rule of law are guiding principles for probation services. If so, then junk-science has no place in our legal system.

Theoretical Underpinnings of the polygraph

3. The central claim for the understanding of the polygraph – i.e. the presupposition that the polygraph indicates deception – is inextricably linked to an obsolete and abandoned paradigm in psychology (introspection). As every blue-ribbon committee on the validity of the polygraph reports, the ‘stress response’ to be measured can be triggered by a host of factors. There is simply no unique physiological indicator that reflects a single underlying process, let alone deception (NRC 2003).

4. Polygraph operators face thus an unpalatable dilemma: *Either* to inform the subject that the polygraph test lacks scientific validity *or* to deploy a psychological procedure (stimulation test) based on false statements in order to extract a confession. The field of polygraphy choose persistently the latter – among other things through demonstrably false empirical claims.

5. Our recent research based on FOI requests to police forces, the NPCC and the Ministry of Justice has uncovered reliance on this concept of utility to justify use of the polygraph, although claims continue to be made in guidance documentation that the polygraph can ‘detect lies’ (Kotsoglou/Oswald 2020). Furthermore, our FOI requests uncovered considerable inconsistency of approach and lack of transparency around the extent of usage, including at least one use of the polygraph **outside of the sex offender context** (Hertfordshire Police’s C2 programme). This raises considerable concerns around the ‘creeping’ influence of the polygraph absent sufficient critique of its theoretical underpinnings, or robust and transparent oversight of its implications for individual rights.

Bogus pipeline-effect and interrogative suggestibility

6. The true purpose of the stimulation test is to make the subject believe in the infallibility of lie detection. This is where the so-called ‘**bogus pipeline effect**’ kicks in. Because the subject operates on the wrongful basis that the polygraph test a) works independently and b) will reflect his true attitude, and because he does not wish to be second-guessed by the machine, he will feel pressured to disclose adverse statements (Jones/Sigall 1971). Furthermore, **interrogative suggestibility** appears to be significantly mediated by anxiety processes. Note that the main function of the stim-test is to **instil fear**

of detection. In a similar way to torture, suggestibility is not a reliable or legitimate way of conducting an interview (Gudjonsson 2003;Kotsoglou 2017).

Lack of Realism

7. According to some literature, polygraph tests can discriminate lying from truth telling at rates well above chance, though well below perfection. However, empirical research in that area suffers from **lack of realism**. Tests are conducted a) in laboratory settings, b) in populations of examinees untrained in countermeasures. We cannot generalise these results to real-world settings. The reason for that is what psychologists coin the ‘**base rate problem**’. It is practically impossible to know the proportion of subjects undergoing polygraph tests who are genuinely lying or guilty of the offence of which they are accused. Therefore, we cannot estimate the frequency with which false confessions occur (Gudjonsson 2003; Kotsoglou 2014).

8. Admittedly, in certain laboratory settings lie-detection may provide results above chance. However, the accuracy rate of 89% (see Home Office, [Factsheet](#)) refers to laboratory settings where subjects of psychological research are instructed to imagine themselves committing a mock crime by stealing, say, something in the room. This should, so the aspiration, create an emotional potential with which one could conduct experiments. This is, however, an experiment with the wrong type of guinea pigs, for the forensic context is **wildly dissimilar** (Biedermann/Kotsoglou 2018). Real people involved in the criminal justice system have real stakes, complex motivations and recollections of events (Kotsoglou/Oswald 2020).

Exerting Pressure

9. The polygraph test puts the subject under unjustifiable pressure. According to the currently valid Operational Instructions,¹ failure to attend or comply with the pseudo-scientific polygraph-test, is heavily sanctioned as it constitutes a breach of the licence condition.

10. Furthermore, an offender who has ‘failed the test’, i.e. gets back ‘deception indicated’ (DI) as a result, will be asked to ‘explain the test result in the post-test phase of the examination’. This is another opportunity, the document states, for the released offender to disclose information.

11. It is striking that the Operational Instructions do not regard –even from within the flawed logic of the polygraph— the possibility of a false-alarm as relevant. The offender has to provide an explanation for an indication which, we repeat, can be on the polygraph’s own terms, a false positive. Note that if deception is indicated and the offender is not ‘forthcoming in offering any explanation’, then a ‘sound guiding principle’ is to ‘address the issue “head on” with the offender and try to verify it’. It becomes thus clear that the polygraph test is not a neutral truth-conducive device –it does not detect anything. On the contrary, the polygraph is revealed as an **interrogation tool**, another Trojan horse in which the extraction imperative is secreted under the veil of technology (Kotsoglou 2017; Kotsoglou/Oswald 2020).

¹ See NOMS - Polygraph Examinations: Instructions for Imposing Licence Conditions for the Polygraph on Sexual Offenders. Appendix 1, para 2.9.4.

Lack of Scrutiny and Individual Redress

12. According to the current practice in England and Wales, a released (sex) offender whose licence was revoked can request an ‘oral hearing’ at the Ministry of Justice’s Public Protection Casework Section (PPCS). The Ministry of Justice’s ECHR Memoranda asserts that, if a terrorist offender is recalled to prison as a result of failing to cooperate with a test or from evidence adduced from information obtained from a test, there is no breach of Article 5 as detention is in accordance with a sentence set by a court. This analysis fails to address the lack of validity that goes to the very heart of the test itself, and the ‘black box’ nature of the process which militates against the individual’s ability to challenge (Oswald 2020).

13. We would argue for the introduction of a process of **independent scrutiny of the use of polygraph in licence recall decisions**.

Failure to protect the Public

14. If the subject discloses information, probation officers using the polygraph will reach a fork in the path. Their two options are either to stick to the polygraph session, which results to the inadmissibility of any statement made by the released person in criminal proceedings, or to stop the polygraph session, caution the offender and repeat the question, in order to perform their responsibility of protecting the public. Even from the viewpoint of its own logic the polygraph cannot deliver what the legislator intended: **protection of the public**. On the contrary, it leaves, as the NRC (2003) report concluded, ‘too many major security threats undetected’.

15. Polygraph tests may contribute to a false sense of security. For it has been shown that polygraph tests can easily be tricked (NRC 2003).

Integrity of the Legal Order

16. By deploying interview rituals masqueraded as technological solutions which on their own terms lack scientific validity, we jeopardise not only the rationality of a legal order, but, most importantly, its normative cohesion and integrity too. The use of unreliable methods in siloed parts of the criminal justice system (context of probation) fragments the *unity* of law.

Information on Polygraph testing from FOI requests

17. As regards the use of polygraph tests for released sex offenders in England and Wales, we have submitted FOI requests to all UK police forces, the NPCC and the Ministry of Justice. Our analysis based on data gathered through FOI requests confirms the point made inter alia by Mr Gavin Robinson MP during the [parliamentary discussion](#): polygraph tests are not ‘safe or secure’. This is true regardless of their validity and reliability, for there are **significant structural issues in the way polygraph tests are conducted across England and Wales**.

18. The interview rituals deployed are even among themselves **uncoordinated and of varying professional standards**. As the Ministry of Justice/Probation Service informed us: ‘there are no set questions that come with this [polygraph] test. Each test is created and based on the specific licence conditions of the individual.’

19. The very term we use is therefore a **misnomer**, for what is often and rather uncritically referred to as *the* polygraph-test is actually a **diverse set of malleable interview rituals**. Proponents of the use of polygraphs choose to ignore the common-sense fact that communication with people and ascription of truthfulness are **highly context-sensitive** and thus antithetical to the general formulation which is a feature salient in science (FOI-data).

20. More specifically:

- A number of police forces informed us that each test is bespoke to the individual, which ultimately means that there is **no standardised methodology** for the polygraph test.
- 18 police forces (36.8%) stated that they did not hold any information yet still used s.30 & 31 FOI Act 2000 to 'Neither confirm nor deny' whether additional information was held.
- Only 5 police forces (10.8%) **denied any use of polygraphs**. These forces stated that they 'do not', 'have never', and 'do not intend to' use polygraph testing.

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Literature

Alder K. (2007), *The Lie Detectors* (Free Press: New York).

Biedermann A. / Kotsoglou K.N. (2018) Decisional Dimensions in Expert Witness Testimony. A Structural Analysis. In: *Frontiers in Psychology*, [Judgment and Decision Making Under Uncertainty: Descriptive, Normative, and Prescriptive Perspectives \(special issue\)](#), pp. 194-208.

Gudjonsson G.H. (2003), *The Psychology of Interrogations and Confessions* (Wiley: Chichester), p. 173.

Jones E.E. / Sigall H. (1971), The bogus pipeline: A new paradigm for measuring affect and attitude, in: *76(5) Psychological Bulletin* (1971), pp. 349–364.

Kotsoglou K.N. (2017) Torture works? Beccaria's Forgotten Lesson. In: *Torture Magazine* 2017(1), pp. 19–24

Kotsoglou K.N. / Oswald M. (2020), Zombie Forensics. The Use of the Polygraph and the Integrity of the Criminal Justice System (forthcoming).

Kotsoglou K.N. (2019) Proof Beyond a Context-Relevant Doubt. A Structural Analysis of the Standard of Proof in Criminal Adjudication. In: *Artificial Intelligence & Law* 28(1), pp. 111-133.

Kotsoglou K.N. (2020) Accepting/Rejecting Unchallenged Expert Evidence: The Decision-Making Prerogative: R v Charlene Sargeant [2019] EWCA Crim 1088, in: *The Journal of Criminal Law*, Vol. 84(1), pp. 86-89.

Lee C.D. (1952) *The Instrumental Detection of Deception* (Springfield: Illinois, 1952).

Oswald M. (2020) Technologies in the twilight zone: early lie detectors, machine learning and reformist legal realism, *International Review of Law, Computers & Technology*, 34:2, 214-231, DOI: [10.1080/13600869.2020.1733758](https://doi.org/10.1080/13600869.2020.1733758)

National Research Council [USA], Committee to Review the Scientific Evidence on the Polygraph, 2003.

Kotsoglou K.N. (2017) Torture works? Beccaria's Forgotten Lesson. In: *Torture Magazine* 2017(1), pp. 19–24.

HM Inspectorate of Probation, Report of the Chief Inspector of Probation (March 2019).