



## CONSTITUTIONALITY AND EVIDENTIARY VALUE OF SCIENTIFIC CRIME DETECTION TESTS

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### ABSTRACT:

*Scientific crime detection tests have been carried out for a considerable period of time to detect deceptiveness and provide an aid to investigation. However, their validity is yet to be properly determined. While this paper provides a brief analysis of the three major scientific tests used: Narcoanalysis, Polygraph and brain mapping test, its focal point is to provide an insight into the constitutionality and evidentiary value of these tests in light of the guaranteed fundamental rights and existing Evidence Law and Criminal Procedure Code provisions, to understand whether the ends justify the means. The paper also seeks to analyse the judicial interpretation accorded to these tests and the guidelines issued for their conduct. While these tests have emerged as a guiding light for criminal investigations, safeguards need to be developed to prevent misuse of these tests. At the end of this paper, an attempt has been made to give recommendations for future research and improvement in the administration of these scientific crime detection tests.*

**Keywords:** *Scientific crime detection tests, polygraph, crime, consent, evidence, investigation.*

### INTRODUCTION

An ever developing and expanding society, which gets more and more complicated with each passing second, results in new forms and ways of committing a crime, making it increasingly difficult to procure admissible evidence in courts.<sup>1</sup> As a result, the contemporary world has witnessed a surge in the use of modern and scientific crime detection tests like polygraph, narcoanalysis, brain mapping etc., to help guide criminal investigations. These tests are valid, not only for modern crimes, but also traditional ones. The need for such scientific measures was even recognised by the Supreme Court in *Som Prakash v. State of Delhi*.<sup>2</sup> A major distinction between these scientific tests and the conventional investigative procedure is that tests demand a great sense of cooperation from the persons accused of the crime.<sup>3</sup> This cooperation may be voluntary, but more often than not, is coercively obtained. Despite this widespread use of scientific tests in investigations, the law regarding them is not clearly defined, and mostly depends upon judicial interpretations. This poses a challenge in ensuring a fair, just and equitable procedure, to be followed in criminal cases, a right guaranteed to accused persons.<sup>4</sup>

An important concern associated with the use of scientific tests in investigations is that,

<sup>1</sup> Lakshman Sriram, *Narco-Analysis and Some Hard Facts*, 24 *Frontline*, (2007).

<sup>2</sup> *Som Prakash v. State of Delhi*, (1974) 4 SCC 84.

<sup>3</sup> *Abhyudaya Agarwal & Prithwjit Gangopadhyay, Use of Modern Scientific Tests in Investigation and*

*Evidence: Mere Desperation or Justifiable in Public Interest*, SCC OnLine, 2 NUJS L Rev 31, 33 (2009).

<sup>4</sup> *Maneka Gandhi v. Union of India*, AIR 1978 SC 597.



while there are safeguards ingrained against the abuse of such tests during a judicial proceeding, there are no such prescribed safeguards when it comes to the investigation itself. This concern becomes even more severe in cases of narcoanalysis test wherein there is no clear distinction between the investigative and the evidentiary stage, as seen in the infamous Aarushi Talwar murder case. This paper begins with a thorough analysis of the most prominently used scientific tests, and then proceeds onto discussing the relevance of such an evidence during judicial proceedings as per the Indian Evidence Act, 1872. The main focus remains on testing the validity of such tests against the principles imbibed in the Constitution of India, including right against self-incrimination and right to privacy and health.

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### RESEARCH OBJECTIVE

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The objective of this research paper is to test the constitutionality and evidentiary value of scientific crime detection tests used in investigations. Additionally, it seeks to critically evaluate the procedural and accuracy of these tests and the concept of its legal deception.

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### HYPOTHESIS

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This paper works on the hypothesis that the scientific crime detection tests play a significant role in investigations and high evidentiary value is accorded to these tests.

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### RESEARCH METHODOLOGY

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The research encompassed in this paper primarily comprises of secondary data collected from international journals, articles, online libraries and websites. The literature reviewed and books referred give an idea of

the topic and the scope of research. The secondary sources of research are cited in the reference section of this paper.

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### LITERATURE REVIEW

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The literature has been reviewed from journals and articles to understand the constitutionality and evidentiary values of scientific crime detection tests in the current criminal administration system. In the paper titled ‘Constitutionality and Evidentiary Value of Narcoanalysis, Polygraph & BEAP Tests’ by Dr. Dharmendra Kumar Singh (2017), the author opines that while polygraphs and brain mapping tests are constitutional, narcoanalysis fall within a grey area of the law, since it involves the giving of testimonial evidence in a state where the subject has no control over his statements and his inhibitions are lowered. Furthermore, the author believes that the tests also have a place in the civil justice systems and encompasses a detailed analysis of the landmark judgement in Selvi v. State of Karnataka. In the paper titled, ‘Polygraph and Narco Test in Indian Evidence Law through Case Laws’, authored by Arya and Pricilla (2018), the author, while discussing the procedure of the conduct of these scientific tests in depth, analysed these tests in the light of the various provisions of the Indian Evidence Act, 1872. It also relied upon judicial analysis of these tests to form an opinion as to their reliability and validity. In ‘A Critical Analysis of the Theory, Method, and Limitations of the “Lie Detector”’, the author, Benjamin Burack (1995), analysed the efficacy of these scientific tests and explained the psychological impact of such tests on the subject, and makes recommendations for proper administration of such tests.




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## ANALYSIS

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### THE PROMINENT SCIENTIFIC CRIME DETECTION TESTS

The prominent scientific crime detection tests are as follows:

#### *Narco-Analysis*

The Narco-analysis test entails the administration of a specific amount of chemicals to the accused's body in a controlled and monitored environment for two to three hours, to induce the accused into a hypnotic or semi-conscious state.<sup>5</sup> In this semi-conscious state, the accused is interrogated, and his response recorded by the means of audio or visual cassettes.<sup>6</sup> The information so procured, is used to carry out further investigations against the accused. The hypothesis behind this is that the drug administered to the accused, lowers their reasoning and inhibitions, making them more susceptible to speaking the truth when questioned. As a result, this test is also referred to as the 'truth-serum test'. Ideally, narco-analysis is performed only when the suspect is found to be medically fit for the procedure.<sup>7</sup>

#### *Brain Mapping Test*

The brain mapping test, also referred to as the *P-300 Test* or the *Brain Wave Finger*

*Printing*, was developed two decades earlier, in 1995. It involves asking the subject three types of questions, which include neutral questions, probe questions and target questions. Neutral questions are questions which are directly related to the facts of the criminal investigation and case, probe questions are those questions which attempt to make the subject reveal vital information not shared by him, and target questions are questions about facts of the case that the subject might be unaware of.<sup>8</sup> Oral responses to such questions are not necessary, brain activities of the subject on asking such questions is marked and analysed subsequently. If the subject has knowledge about the question asked, the brain is said to emit P-300 waves which are tracked and noted by sensors. These reports are then analysed by experts, and then an in-depth interrogation is carried out about the facts known to the subject, either by conventional means or other scientific tests.<sup>9</sup>

#### *Lie Detector or Polygraph Tests*

The Lie Detector or Polygraph tests involve the attachment of several probes to a subject's body and examination of his responses and pulse patterns, etc. to questions posed by experts. The subject is seated on a chair, with paraphernalia attached to his chest and upper arm to measure changes in breathing, heart rate and pulse patterns.<sup>10</sup> The

<sup>5</sup> Subhojyoti Acharya, Is Narco Analysis a Reliable Science, The Present Legal Scenario in India, 67 (2004).

<sup>6</sup> Daubert v. Merrell Dow Pharmaceuticals, 125 L Ed. 2d.

<sup>7</sup> Satyendra K. Kaul, Mohd. H. Zaidi, Narco-Analysis, Brain Mapping, Hypnosis & Lie Detector Tests in Investigation of Suspect, Alia Law Agency 109, (2008).

<sup>8</sup> Marchand and Smith, Use of Event-Related Brain Potentials (ERPs) to Assess Eyewitness Accuracy and Deception, 73 International Journal of Psychology 218, 220 (2009).

<sup>9</sup> Dickson & McMahon Will, The Potential Role of "Brain Fingerprinting" In Crime Investigation and Adjudication, 13 J. Law Med. 204, 208, (2005).

<sup>10</sup> Senese, L., Accuracy of the Polygraph Technique with and Without Card Test Stimulation, 4 Journal of Police



hypothesis behind these tests are that the heart beats start acting erratically when a person lies, and the same is mapped by the polygrapher on a graph.<sup>11</sup> The expert first establishes a baseline by asking the subject questions he already knows the answers to, for example, the subject's name.<sup>12</sup> This is taken to be the truth line and deviations from it due to the answers of the subject are taken to be lies. These deviations occur due to bodily responses to lies, which makes a person nervous, and are beyond the control of the subject, being caused by the nervous system.<sup>13</sup>

#### UNDERSTANDING EMOTIONS- CRITERIA USED IN THESE SCIENTIFIC TESTS

The term emotion, is not capable of having a precise definition, which would be accepted globally. It is an intangible characteristic, which can only be felt, is often faked and easily misunderstood.<sup>14</sup> It is an abstract term. Traditional emotion theories state that there are certain fundamental or core emotions, which exist in every human, which have evolved over time, owing to human evolution process. These core emotions have specific trigger points, or provoking patterns, that elicit a particular type of response when triggered. With time, modern emotion theories, instead of focusing on emotions as an individualistic feature of humans, have

started looking at it from an integrative aspect, considering it to be a sum of feelings, behaviour, cognition and neurobiology.<sup>15</sup>

There is a specific stimulus to initiate a particular emotional response in a person, and delve them into the associated emotional state. These stimulus or trigger points differ from person to person. An emotional state is the state a person falls into, when that particular emotion is triggered. Every emotional response in a person is a culmination of a cognitive component, an affective component, a biological component and a behavioural component.<sup>16</sup>

It is not possible to determine an exact response to a stimulus in a person or to successfully measure an emotional response or state. However, it is possible to measure fluctuations from a normal baseline of emotions, wherein the person is not experiencing any heightened emotion as such. Then, the change in measurements caused by the stimulus or trigger point, can be studied to effectively differentiate between a truth and a lie.<sup>17</sup>

#### VALUE OF THE SCIENTIFIC TESTS

The results of these scientific tests are either utilised as evidence in the court by itself or serves as a clue to reach the next step in investigation. In cases where the subject

Science and Administration 274, 276 (1976).

<sup>11</sup> Goldzband M.G., Polygraphy Revisited: U. S. v. Scheffer., 27 J. Am. Acad. Psychiatry Law 133, 137 (1999).

<sup>12</sup> D.C. Raskin, Scientific Assessment of the Accuracy of Detection of Deception, 15 Psychophysiology 143, 145 (1978).

<sup>13</sup> Gudjonsson G.H., Lie Detection: Techniques and Countermeasures, S.M.A. Lloyd-Bostock & B.R. Clifford, Evaluating Witness Evidence 137, 139 (1983).

<sup>14</sup> Saxe, L., and Fine, M., Social Experiments Methods for Design and Evaluation, Beverly Hills, Calif.: Sage Publications, (1981).

<sup>15</sup> Stephen Leighton, Modern Theories of Emotion, 2 The Journal of Speculative Philosophy 206, 210, (1988).

<sup>16</sup> David Sears, Robert Jervis, The Psychology of Emotions and Politics, Oxford Handbook of Political Psychology, 187 (2003).

<sup>17</sup> Senese, L., Accuracy of the Polygraph Technique with and Without Card Test Stimulation, 4 Journal of Police Science and Administration 274, 275, (1976).



makes an incriminating statement during the course of a test, it may directly be utilised in the court as evidence, if it amounts to admissions under the Indian Evidence Act, 1872. Admissions are statements that guide the investigating agencies to arrive at a relevant fact or fact in issue.<sup>18</sup> However, such a statement must not amount to confession because a confession made to a police officer, in the custody of police officers during the course of investigation, is inadmissible as evidence in court.<sup>19</sup> In cases where no statement is given by the suspect or witness during the tests, the report itself might be produced before the court, along with an analysis of the same by an expert witness.

When the statements made by the suspect are not presentable as evidence before the court, they may act as clues for the investigating agencies, to decide the next course of action and move one step closer to solving the crime. These statements are then merely seen as investigative hints, not as evidence. The evidence procured as a result of these statements are independently produced before the court, and not as a subset of the statement made.

In addition to police investigation and evidence purposes, the scientific tests are also used for pre-employment screening of prospective candidates in law enforcement agencies, to ensure credibility and truthfulness of the candidates.<sup>20</sup>

<sup>18</sup> Section 17, Indian Evidence Act, 1872, Act No. 1 of 1872.

<sup>19</sup> Section 25 & 26, Indian Evidence Act, 1872, Act No. 1 of 1872.

<sup>20</sup> Ewot H. Meijer, Bruno Verschuere, The Polygraph and the Detection of Deception, *Journal of Forensic Psychology* 1, 3 (2010).

<sup>21</sup> *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).

### CONSTITUTIONALITY OF THE SCIENTIFIC CRIME DETECTION TESTS

The constitutionality and validity of the scientific crime detection tests, or deception detection tests has been questioned since the time of their inception.

Polygraph testing was first brought into the purview of courts in U.S. in 1923 in the case *Frye v. United States*,<sup>21</sup> wherein it was held that the technique of lie-detector test or polygraph was yet to get popularity and acceptance in the scientific community, and therefore, was not acceptable as evidence. However, in 1993, the admissibility of polygraph tests was left to the discretion of the courts on a fact to fact basis and the intelligence of the judges,<sup>22</sup> in the case *United States v. Scheffer*.<sup>23</sup> While polygraphs are not admissible as evidence in courts at all in Canada,<sup>24</sup> they are acceptable in Japan.<sup>25</sup> In USA, narcoanalysis is seen as a tool to fight the war against terrorism. As held in *Indianapolis v. Edmond*,<sup>26</sup> the truth serum can be administered to a suspect without the need of an actual warrant or probable cause, in the case of grave offences or offences of terrorism.

The tussle is between the protection of larger public interest by conducting an efficient investigation and protecting the individual interests of the accused who is subjected to these tests, either by will or by coercion. The

<sup>22</sup> Goldzband M.G., Polygraphy Revisited: U. S. v. Scheffer. 27 J. Am. Acad. Psychiatry Law 133, 136 (1999).

<sup>23</sup> *United States v. Scheffer*, 523 U.S. 303 (1998).

<sup>24</sup> *R. v. Béland*, [1987] 2 S.C.R. 398.

<sup>25</sup> Yamamura T. and Miyata Y., Development of the Polygraph Technique in Japan for Detection of Deception, 44 J. Forensic Sci. Int. 257, 261 (1990).

<sup>26</sup> *Indianapolis v. Edmond*, 531 US 32 (2000).



Constitution guarantees certain fundamental rights to every citizen, which cannot be compromised under any circumstance as it forms a part of the basic structure of the Constitution.<sup>27</sup> One of these rights is the right to life and liberty guaranteed under Article 21 of the Constitution.

### ***Right Against Self-Incrimination and Right to Remain Silent***

According to Section 20(3) of the Indian Constitution, no person can be compelled to give evidence against himself. This is the right against self-incrimination guaranteed to every person accused of a crime. This right extends only to cases of compulsion and not to cases where the accused voluntarily gives evidence of his crime.<sup>28</sup> Cases of compulsion include both physical as well as mental compulsion including psychic torture, coercion, intimidation tactics, taxing interrogative practices, etc.<sup>29</sup> This right is an integral part of a fair trial under the existing criminal laws. It is only available when the evidence is testimonial in nature and not when it involves taking of blood samples, fingerprints, etc. This right is also accompanied by the right to remain silent,<sup>30</sup> as enshrined under Section 161(2) of the Criminal Procedure Code, 1973, which makes it mandatory for every individual to truthfully answer every question posed to them by the police, except those that would make them liable to a criminal investigation.<sup>31</sup>

As a result of Article 20(3), no person can be compelled to answer the questions posed to them during a polygraph test. It was held by the Honourable Supreme Court in the case of *State of Bombay v. Kathi Kalu Oghad*,<sup>32</sup> that no polygraph of an accused should be carried by the police without the consent of the person accused, otherwise, such a test would be violative of Article 20(3) of the Constitution. However, this right is only available during court proceedings and not during police investigations. The same was affirmed in the famous case of *Selvi v. State of Karnataka*,<sup>33</sup> wherein it was held that an individual has the right to remain silent or make a statement. This case also laid down certain guidelines to be followed during the conduct of polygraph or lie detector tests, which have been discussed in depth later.

In *Ramchandra Ram Reddy v. State of Maharashtra*,<sup>34</sup> the constitutionality of narcoanalysis test was analysed. It was held that no person can be forced to be subject to the narcoanalysis test against their will as statements are required to be made by the subject while he is in a semi-conscious state. Any incriminating statement made while under the influence of the drugs administered during this test, would be inadmissible in the court as evidence, being barred by Article 20(3). However, such a limitation would only be applied in case of self-incriminating statements.

<sup>27</sup> Kesavananda Bharati v. State of Kerala, (1973) 4 SCC 225.

<sup>28</sup> Dastagir v. State of Madras, AIR 1960 SC 756; RK Dalmia v. Delhi Adm., AIR 1962 SC 1821.

<sup>29</sup> Nandini Satpathy v. P.L. Dani, (1978) 2 SCC 424.

<sup>30</sup> Ibid.

<sup>31</sup> Section 161(2), Criminal Procedure Code, 1973, Act No. 2 of 1973.

<sup>32</sup> State of Bombay v. Kathi Kalu Oghad, (2004) 3 SCC 296.

<sup>33</sup> Selvi v. State of Karnataka, (2010) 7 SCC 263.

<sup>34</sup> Ramchandra Ram Reddy v. State of Maharashtra, Cr. W.P. No. 1924 of 2003 decided on 05:03:2004, Bom. HC.



### ***Right to Privacy***

The protection guaranteed against self-incrimination also aids in protecting the privacy of a person in the criminal justice system. Narcoanalysis, Polygraph and Brain Mapping involve intrusion of this privacy and might constitute mental torture at times, making their constitutionality questionable. The right to privacy is impliedly included under the right to life and personal liberty, guaranteed under the Article 21 of the Indian Constitution.<sup>35</sup> Privacy is defined as being free from outside disturbance and intrusion in one's life and affair.<sup>36</sup> It includes the privilege of a person to be left alone.<sup>37</sup> In the *Selvi* case, it was held that the conduct of narcoanalysis, brain-mapping or lie-detector tests without the consent of the person would be a violation of their fundamental right under Article 21.

In the present scenario, the scientific tests have not been challenged on the grounds of violation of right to privacy, they have mostly been challenged as being violative of the right against self-incrimination. Therefore, the tests have been found to be 'compulsive' in nature, and not invasive of privacy. It can be said that while the tests are not directly violative of the right to privacy, their administration to extract personal information about their subjects without their will, would be violative of the right to privacy.<sup>38</sup>

<sup>35</sup> Justice K.S. Puttaswamy (Retd) v. Union of India, 2017 (10) SCC 1.

<sup>36</sup> District Registrar and Collector v. Canara Bank, 2005 (1) SCC 496.

<sup>37</sup> R. Rajagopal v. State of Tamil Nadu, AIR 1995 SC 264.

<sup>38</sup> Abhyudaya Agarwal & Prithwjit Gangopadhyay, Use of Modern Scientific Tests in Investigation and Evidence: Mere Desperation or Justifiable in Public Interest, SCC OnLine, 2 NUJS L Rev 31, 48 (2009).

### **EVIDENTIARY VALUE OF THE SCIENTIFIC CRIME DETECTION TESTS**

Polygraph tests and Brain mapping tests merely provide graphs and representations of a person's behaviour which are analysed and explained by experts. Therefore, these reports account as opinions given by experts, based on their understanding of the recorded readings, which may or may not be correct.<sup>39</sup> The evidence presented by them is merely an opinion, unless corroborated by additional evidence.<sup>40</sup> Narco-analysis poses huge questions about its correctness, given that the statements made by a person when under the influence of drugs, is a confession made in a semi-conscious state, it is not generally admissible in the courts as evidence. However, keeping in mind the circumstances under which such a confession was obtained, it might be granted limited admissibility on a fact to fact basis.<sup>41</sup>

Explanation (a) to Section 53, 53-A, and 54 of the Code of Criminal Procedure, 1973 talks about the examination of tests by medical practitioners. The explanation talks about 'any other tests', which raises a question as to whether this phrase includes the scientific tests like polygraph, narco-analysis or brain-mapping. This question was analysed in depth in the case of *Selvi v. State of Karnataka*,<sup>42</sup> and it was argued that legislative intent behind the Act was such as

<sup>39</sup> Ram Narain v. State of Uttar Pradesh, AIR 1973 SC 2200.

<sup>40</sup> A.S. Dalal, Arunava Mukerjee, Constitutional and Evidentiary Validity of New Scientific Tests, 49 The Indian Law Institute 529, 540 (2007).

<sup>41</sup> Sonakshi Verma, The Concept of Narcoanalysis in View of Constitutional Law and Human Rights, RMNLU,

[http://www.rmlnlu.ac.in/webj/sonakshi\\_verma.pdf](http://www.rmlnlu.ac.in/webj/sonakshi_verma.pdf).

<sup>42</sup> *Selvi v. State of Karnataka*, (2010) 7 SCC 263.



to provide for inclusion of such tests under the Code of Criminal Procedure. In a response to this, the court distinguished between physical evidence and testimonial evidence by stating that while the other tests mentioned in the explanation like blood, sweat, semen, hair tests, etc., would comprise as physical evidence tests, physiological tests like polygraph, brain-mapping and narco-analysis would amount to testimonial evidence, giving rise to a statement by the accused or witness. Therefore, on the application of the rule of 'ejusdem generis' to the section, i.e., the general words should be construed in accordance with the specific terms used in the Section, the Court came to the conclusion that since testimonial evidence is distinct from physical evidence, the same cannot be read into the Section.<sup>43</sup>

#### ***Test Conducted with Consent***

In the landmark judgement of *Selvi v. State of Karnataka*, no person shall be forced to undergo a scientific test or technique, not even for the purpose of a criminal investigation. This is because it would amount to an invasion into the personal liberty of a person, guaranteed under Article 21. However, at the same time, such tests were held to be allowed and valid, if the person subjected to the test had himself consented to the conduct of the test, which had been carried out, keeping in mind all necessary safeguards. Despite this, the actual report of the test is not admissible as evidence in the court because of the fact that such

statements are made under the influence of drugs and chemicals, and the subject has no material choice but to respond to the answers. However, the information subsequently collected as a result of such statements are admissible in court under Section 27 of the Indian Evidence Act, 1872.<sup>44</sup>

In the infamous Arushi Talwar Murder Case,<sup>45</sup> all the three tests, Narco-analysis, polygraph and brain mapping tests were carried out on the accused persons, to determine the true occurring of the fateful night when Arushi, a fourteen-year old girl was found dead at her home and her parents were the ones accused of her murder. In light of the *Selvi v. Karnataka* judgement, it was held by the court that the reports of such tests cannot be led as evidence in the court unless they were performed after the due consent of the accused persons.

In the case of *State of A.P. v. Inapuri Padma*,<sup>46</sup> it was held that where the persons are arrested by the police on the request of the Court, no separate permission is required by the police to conduct the narco-analysis of such persons, provided, they do not pose any resistance to the administration of such a test. However, when such resistance is shown, it becomes the duty of the police to satisfy the court that vital information as to the commission of the crime is known to the persons, but not disclosed by them, so as to warrant the conduct of such tests.<sup>47</sup>

#### ***Test Mandated by Court***

<sup>43</sup> Dharmendra Kumar Singh, Constitutionality and Evidentiary Value of Narco-Analysis, Polygraph & BEAP Tests, 3 International Journal of Law 84, 86 (2017).

<sup>44</sup> Asmita Chakraborty, Narcoanalysis: A Necessary Double Edged Sword, 2 Droit Penale: Indian Law Journal on Crime and Criminology 1, 5 (2017).

<sup>45</sup> Dr, Rajesh Talwar and Another v. Central Bureau Investigation, 2013 (83) ALLCC 283.

<sup>46</sup> State of A.P. v. Inapuri Padma, 2008 CriLJ 68.

<sup>47</sup> Aban Philip, Admissibility of Narco-Analysis, 4 Int. J. Legal Dev. And Allied Issues 1, 11 (2018).



The pursuit of truth is the ultimate goal of the investigating agency and the court. No efforts are to be left to be made to discover the person guilty of committing a crime, and therefore, when the circumstances warrant, courts sometime interfere and ask the police to carry out one of the scientific tests of discovery on the suspected persons.

In *Abhay Singh v. State of U.P.*,<sup>48</sup> the court held that in cases where these scientific tests are essential to uncover the actualities and facts of a particular case, the court ought not to prevent their conduct, and the same shall be carried out under the supervision of the court. In the case of *Mohinder Singh Pandher and Surender Singh Koli v. State of U.P.*,<sup>49</sup> infamously known as the Nithari Murder Case, the Court directed the conduct of narcoanalysis test to ascertain whether the statements made by the accused during their custodial cross examination were truthful or not. Through this test, significant information was obtained by the police for carrying out their investigation, including the names of the youngsters that had been killed by them. However, no such tests shall be carried out on a victim of a crime as it would amount to an invasion of their mental privacy and no necessity of investigation can mandate the conduct of such tests on a victim.<sup>50</sup>

#### ***Evidentiary Value in Civil Cases***

Section 75(e) of the Civil Procedure Code, read along with Order 26, Rule 10-A, empowers the civil court to instruct the investigating agencies to conduct a scientific, technical or expert investigation to discover

facts relevant to the case.<sup>51</sup> This would imply that the courts are empowered to carry out the scientific tests of polygraphs, narcoanalysis and brain mapping.

Moreover, the Selvi case, in its landmark judgement, talks about 'criminal cases and otherwise', implying that the ratio laid down in this case is also applicable to civil cases. Therefore, while such tests are acceptable in civil cases, they still cannot be administered forcibly, without the consent of the subject.

#### **GUIDELINES FOR CONDUCT OF THE TEST**

The National Human Rights Commission (NHRC) has laid down certain guidelines in the year 2000 to be followed for the administration of polygraph or lie-detector tests on an accused. These guidelines are to be strictly followed, and the same guidelines are also applicable in the case of narcoanalysis and brain mapping techniques.<sup>52</sup> These guidelines are stated as follows:

- ❖ The tests shall be administered on a voluntary basis, and the accused will be given a choice as to whether he/she wants to go through with the test or not.
- ❖ In cases where the accused gives his consent to the administration such tests, he shall be provided with a lawyer. The physical, emotional and legal attributes of such a test are to be properly explained to him by the police and his lawyer, and understood by him.

<sup>48</sup> *Abhay Singh v. State of U.P.*, 2009 CriLJ 2189.

<sup>49</sup> *Mohinder Singh Pandher and Surender Singh Koli v. State of U.P.*, AIR 2011 SC 970.

<sup>50</sup> *Selvi v. State of Karnataka*, (2010) 7 SCC 263.

<sup>51</sup> Pricilla, Arya, *Polygraph and Narco Test in Indian Evidence Law-Through Case Laws*, 120 International

*Journal of Pure and Applied Mathematics* 125, 142 (2018).

<sup>52</sup> Guidelines on Administration of Lie Detector Test, National Human Rights Commission, India, (2000), <https://nhrc.nic.in/press-release/guidelines-administration-lie-detector-test>.



- ❖ A valid consent shall be said to have been taken if the consent is recorded in the presence of a Judicial Magistrate.
- ❖ In such a hearing before the Judicial Magistrate, the accused shall be duly represented by a lawyer.
- ❖ The accused shall also be duly informed that the statements made by the accused during the conduct of such tests shall be in the nature of a statement made to the police and not a confession made before the Magistrate.
- ❖ The Magistrate, while recording the consent, shall take into account the length of detention and the nature of the interrogation to be carried out.
- ❖ The interrogation during the test shall be carried out in the presence of the accused's lawyer, and a record of the same shall be made by an independent agency like a hospital.
- ❖ The medical and factual narration of the way in which the test was carried out shall be placed on official record.

**ETHICAL ISSUES**

The various ethical issues associated with the conduct of these scientific tests are as follows:<sup>53</sup>

- ❖ These tests often amount to psychological torture, which can be as invasive and violative of basic human rights like the use of third-degree torture during investigations.
- ❖ It often involves feeding lies to the subjects, to make them more pliable to the investigative process. For example, in the case of polygraphs, the subjects are often told that their pre-test and stim-test responses are also monitored to detect lies, however that is not true, and emotions can be controlled at this stage.

- ❖ Sometimes, the tests are highly intrusive of a person's privacy and even personal questions that have no nexus with the crime committed are asked.

**RECOMMENDATIONS**

- ❖ Proper environment and infrastructure for the conduct of these scientific tests should be established.
- ❖ Scientific tests should be made mandatory for offences like rape and other heinous offences.
- ❖ Strict sanctions against use of these tests to inflict psychological torture on the accused should be imposed.
- ❖ The guidelines for the conduct of these tests should be strictly followed to ensure personal liberty of the accused and accountability of the police.
- ❖ A clear policy should be laid out for the conduct of narcoanalysis test because it is the one often challenged on the ground of its constitutionality.

**Conclusion**

The three tests, while different in their administration, have a common goal, to discover relevant facts, and lead to an expeditious investigation process. In essence, polygraph tests, which result in a graph, and brain mapping tests, which result in a sensor developed map of the brain, are similar to the evidence found on a person after carrying out a thorough search. This is because, it does not involve the making of a statement or testimony, however the situation gets complicated in the case of narcoanalysis, it being self-incriminatory in nature. The apex court, in *Selvi v. State of Karnataka*, has laid down that such tests can only be carried out on a voluntary basis, and cannot be

<sup>53</sup> Maschke G.W. and Scalabrini G.J., *The Lie Behind the Lie Detector*, 46 (4th Ed., 2005).



compulsorily enforced upon a person. If such tests are administered without the consent of the person subject to it, it would be violative of Article 20(3) and Article 21 of the Constitution of India. The reports of these tests themselves, are not admissible in Court as evidence, however, information subsequently obtained as a result of these tests, are admissible as evidence in court. The application of these tests is not limited to criminal cases alone, it also extends to civil cases.

Therefore, it can be said that, as long as the tests are not administered coercively, their constitutionality cannot be challenged. It is the duty of the courts and other law enforcement agencies to ensure that justice is served, hence, where a person who is likely to have committed the crime is identified, the court may direct the police to carry out these tests on him, so as to provide a lead during the investigative process, even if the statement made by the subject cannot be utilised at the trial stage by the prosecution. This is because public interest outweighs individual interest. Moreover, the NIFRC has laid down guidelines to be followed during the conduct of these scientific tests, which has to be strictly adhered to.

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