

Analytical Study of Technology and Its Application to Criminal Justice System with Special Reference to Narco Analysis and Polygraph Test

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Introduction

In today's fast moving and modern world, technology has emerged as an unfathomable instrument in each and every system in our country. The criminal justice system is no stranger to its effect either and has also inculcated various new technological advancements in its procedures. In the present scenario, agencies are letting go of traditional methods of solving crimes but have started to extensively use new techniques in order to solve complex criminal cases. Such technologies include Narco Analysis, Polygraph Test and Brain Mapping. Although there is a great demand to use such advanced techniques, it also raises some legal, moral and medical issues, with regards to the implications and use of such techniques. This has made the judiciary to analyse such issues in relation with the criminal justice system in India with great sensitivity and seriousness.

The term Narco Analysis, also known as the "*truth serum test*", has been derived from the Greek word called *NARKCA* which means anaesthesia or torpor, by the process of administering psychotropic drug to the subject. This process of Narco Analysis includes the use of drugs like sodiumamtyal that is used as a truth drug, in order to determine the facts of a crime. And this type of interview is called 'Amytal Interview'.² Polygraph, also known as the lie detector, is a combination of technologies which records the involuntary responses during conscious lying. During such an investigation there is involvement of various instruments such as cardiographs, sensitive electrodes and pneumographs which are attached to the person in order to record and measure the psychological responses. And after everything is done, the examiner reads and analyses the results. The extent of truthfulness or

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² Perry JC, Jacobs D. Overview: clinical applications of the Amytal interview in psychiatric emergency settings, *American Journal of Psychiatry*. 1982; 139(5):552-9.

falsity on behalf of the subject is assessed by relying on the records of the physiological responses that are recorded.³

Objectives

As science and technology have surpassed the development of law or at least according to the layman's understanding of it, there is unavoidable complexity regarding what can be admitted as evidence in court, especially with respect to Narco Analysis and Polygraph Test. Some of the objectives of this study are:

1. To study and analyse the rights of the accused as far as the right against self-incrimination is concerned.
2. To study the rights of the accused under other Indian Laws and statutory provisions.
3. To analyse the purpose of Narco Analysis and Polygraph Tests within the Criminal Justice system.
4. To understand the court's interpretation as regards to Narco Analysis and Polygraph Test.
5. To analyse the kind of information, taken out of a subject that is admissible in the court of law.
6. To analyse and study the standards provided by the judiciary for the technology used to extract information from the accused.

Research Questions

The research questions for the purpose of this research paper regarding Analytical Study of Technology and its Application to Criminal Justice System with Special reference to Narco Analysis and Polygraph Test are as follows:

1. What are the rights of the accused as far as the right against self-incrimination is concerned under the Indian Constitution?
2. What are the rights of the accused individual under other laws and statutory provisions?
3. What is the purpose of technologies like Narco Analysis and Polygraph Test under the Criminal Justice System?

³ Directorate of Forensic Science, Ministry of Home Affairs, Laboratory Procedure Manual - Polygraph Examination, Government Of India, New Delhi, 2005.

4. What is the judicial interpretation as regards to Narco Analysis and Polygraph tests with respect to Art.20 (3) of the Indian Constitution?
5. What are different kinds of information, taken out of a subject that is admissible in the court of law?
6. What are the standards provided by the judiciary for the technology used to extract information from the accused?

Research Methodology

This research paper is analytical and explorative in its nature because there is an extended analysis on “*Analytical Study of Technology and its Application to Criminal Justice System with Special reference to Narco Analysis and Polygraph Test*”. The sources used in this research study are both primary and secondary. In primary sources the author has used books, case laws and journals. And in secondary sources are online research papers and articles.

Literature Review

It is a general law that under the right against self-incrimination a person who has been accused cannot be compelled or forced to be a witness against himself. Such a right presupposes that the prosecution in criminal cases have to prove the person guilty without resorting to obtaining evidence through methods that are against the will of the accused. For the purpose of this research paper, the author has referred to various case laws and an extensive array of books along with other secondary sources.

The author has heavily depended on the book “*Introduction to the Indian Constitution*”, by D.D Basu as it has extensively covered explanations as regards to self-incrimination under Art.20 (3). The author has further referred to various research papers and case laws to understand the extent of admissibility of the evidences extracted through Narco Analysis and Polygraph test. The Law Commission of India’s one and hundred Eightieth report on Art.20 (3) and on the right to silence has also been analysed by the author in order to under the rights of the accused. Moreover, ‘*Narco-analysis Test: An analysis of various Judgements of Indian Judiciary*’ by Ajay Kr. Barnwal have been read thoroughly to extract cases which cover the effect of such technologies in the criminal justice system. Furthermore, research papers like ‘*Constitutionality and evidentiary value of narcoanalysis, polygraph & BEAP tests*’ by Dr.Dharmendra Kumar Singhand Privacy and The Criminal Process: *Selvi v. State of*

*Karnataka*⁴ by Gautam Bhatia have been used to understand the history and development of Narco Analysis and understand the Selvi case explicitly, respectively. Various other relevant case laws and legal provisions have been inculcated in this research paper so as to make it more comprehensive and analytical.

Historical Methods and Perspective

1. **Narco Analysis:** The method of Narco Analysis as a method of extracting evidence from the accused was introduced in the year 1936, wherein various queries are subjected to a person. In this method, the subject is under the influence of some particular drugs and therefore, talks freely, i.e. without any inhibitions. As he is under the influence of drugs is deprived of any self-control and will power. As a result, he or she is unable to manipulate his answers. The core essence of Narco Analysis is that a person manipulates his statements by the virtue of his imagination. And it is this ability to imagine which is neutralised by using the process of Narco Analysis. And even though the individual going through this process is incapable of giving an elongated answer, he would still be able to reply to less complex and scientific questions. This method of getting answers as a form of evidence from the accused more often than not provides with a spontaneous answer. The most commonly used drug for truth serum evaluation is called Sodium Pentothal which is an anaesthetic as well as a sedative drug. The solution for this evaluation test is made by using 3 grams of sodium pentothal or Sodium Amytal in approximately 3000ml of distilled water. This solution may vary on the basis of a person's sex, age, health and physical condition.⁵ This solution also possess great threat as a wrong dose or over dose, send the semi-conscious person into a state of coma or even cause his death. After the subject is put into a hypnotic trance, he or she is then interrogated by the investigating agency in the presence of the doctors and other medical facilities. The statements given out during this stage are recorded both in video and audio forms. After the entire process is done, a report is prepared by the experts according to the collected evidence. This procedure is mostly conducted in government hospitals only after the court passes an order directing the doctors along with the hospital

⁴ (2010) 7 SCC 263

⁵ N. Murky P, Narcoanalysis, International Journal of Medical Toxicology & Legal Medicine. MEDICO LEGAL SOCIETY 2007; 10(1):1-7.

authorities to conduct the analysis. Moreover, the personal consent of the subject is also needed.

- 2. Polygraph:** The polygraph test was invented by Robert House in 1922 in U.S.A.⁶ In this particular method, the subject is given certain sedative drugs and is subjected to questions by an expert. The underlying feature of this test is that since the subject has almost zero reasoning powers, he cannot be creating any lies. Meaning thereby, when under the influence of such drugs his imagination power ceases to exist and thus he cannot innovate and would only speak the truth. During the early days, in medieval England, the truth was extracted by various inhuman methods. The accused was either thrown under water or inside fire flames based on the belief that, if he is truthful then the almighty would save him. Moreover, at times, they would tie a sack of sand on his leg and throw him into the waters. In case he drowned, he was deemed to be truthful. And in case he floated, he was deemed to be guilty and then later hanged. All of these horrific practices of lie detection were banned in England during 1215. The earliest version of the polygraph was developed in 1921 by Dr. John A. Larson. The polygraph test was judicially noticed in USA for the very first time in 1923 in the case of *Frye vs. United States*.⁷ It is claimed that the instrument used to perform polygraph records information with 100% accuracy including the physiological changes in breathing, perspiration, blood pressure and pulse rate to determine a truth or a lie.

Right against Self Incrimination With Respect To Narco Analysis and Polygraph Test

Self-incrimination is the act of exposing oneself by giving out a certain piece of information when charged of a crime. It may also involve another person apart from oneself during a criminal prosecution. Self- incrimination can be either direct or indirect. In case of direct method, interrogation is conducted, in order to extract and disclose a certain statement which is of self-incriminatory nature and when on a voluntary basis, the interrogation is disclosed with any pressure from some other person. This clause is based on the legal maxim "*nemo tenetur prodere accusare se ipsum*", which means that no man is bound to accuse

⁶ House RE, The use of scopolamine in criminology. Texas St.J Of Med. 1922; 18:259.

⁷Frye vs. United States, 293 F. 1013 (D.C. Cir. 1923)

himself. Making any statement that has any possibility of exposing the accused to criminal prosecution, either at present or in future is not allowed by the Indian Constitution.

Art. 20 (3) of the Indian Constitution very evidently highlights the rule that that no one shall be forced to give out any statement against oneself i.e., criticize oneself.⁸ In the case of *Nandini Sathpathy v. P.L. Dani*⁹, it was held that “no one had the right to forcibly extract statements from the accused person and that the accused has the right to maintain his silence during the course of his interrogation or investigation of a crime.” It was further stated, “Art. 20 (3) can be waived off by an individual himself. But anything that causes by any kind of threat or inducement by any person which is directed towards the accused or a person who is likely to be accused of any particular offence that causes him to act involuntarily and push the case against himself, is violative of the fundamental right which is guaranteed to all the citizens under Art. 20 (3)”. The guarantee of this fundamental right under our constitution extends to an individual who has been accused of an offence and vociferously prohibits all types of compulsions that would make him a witness against himself.

The scope of this right was further widened in the case of *M.P Sharma v. Satish Chandra*¹⁰ wherein the court had the following observations:

1. Right to self- incrimination is a right pertaining to an individual who is accused of a crime.
2. This protection is a protection against the ‘compulsion to be a witness’.

The constitution of India guarantees such a right wherein no person or accused shall be put under the compulsion to be a witness against himself. This is the rule of self-incrimination. Many of the civilized countries are following this rule religiously but the verdicts given by the Indian Judiciary have not always protected this right against self- incrimination. The procedural and substantive provisions that make an individual liable to answer questions during any investigation, inquiry or trial should be complied with but such procedures should also be subject to defence wherein no person is forced to answer questions that will criminate him.

⁸ Durga Das Basu, Introduction To The Constitution Of India, 23rd Edition.

⁹*Nandini Sathpathy v. P.L. Dani*,
(1978) 2 SCC.

¹⁰*M.P Sharma v. Satish Chandra*,
1954 AIR 300

Furthermore, it has been stated in the case of *State v. Navtoj Sandhu*¹¹ that Medical Examination of the accused individual is not violative of the right against self-incrimination which includes the drawing of blood sample, pubic hair etc, in the offence cases of rape, wherein the prosecution has to establish the guilt of the accused beyond all reasonable doubts. It also a penalty when the admission reports are tampered with and converted into confessional statements without the knowledge of the subject which often occurs through torture by the police. Hence, the admission of confession has to be voluntary. The right provided under art. 20 (3) is against the compulsion to be witness against oneself by the means of making written or oral statements in the court of law or outside of the court. Likewise, the high courts of Punjab and Haryana have held that subjecting an accused to DNA tests is not violative of right against self-incrimination. Such DNA tests can be performed on the order of the court and has a valid basis. The courts have also held that there should be no hesitation in subjecting the accused individual to Narco Analysis, Polygraph tests and brain mapping as such tests would help in making the investigation more efficient.

Protection In Respect Of Conviction for Offences under the Indian Law

Art.20 (3) Of the Indian constitution which talks about right against self-incrimination will be extensively discussed in the following sub- topics. Art.21 of the Indian Constitution clearly states that no person shall be deprived of his life or his personal liberty except from the procedure that is established by law.¹² When it comes to right against self-incrimination as regards to Narco Analysis and Polygraph test, it is very closely related to multiple dimensions of 'personal liberty' that is covered by Art.21. Art.21 under part III of the Indian constitution guarantees various rights such as 'substantive due processes' and the 'right to fair trial'.

This particular article is considered to be the heart of the Indian constitution and its underlying objective is to preserve and protect basic human rights of the citizens against the State's interference. In the case of *Maneka Gandhi v. Union of India*¹³ the honourable Supreme Court held that "*the expression personal liberty is of the widest amplitude and it covers various*

¹¹State v. NavtojSandhu,
(2005) 11 SCC 600

¹² India Const. Art. 21.

¹³Maneka Gandhi v. Union of India,
(1978) 1 SCC 248.

rights which go to form personal liberty". Therefore, the protection against arbitrary privation of life does not any longer only mean the mere protection of death or physical injury but also includes the invasion of the right to live with human dignity and all other aspects that would make a man's life more meaningful and worth-living.¹⁴ Even though neither the Indian Constitution nor any statute recognises the "right to privacy" as an express fundamental right, the judiciary has recognised the right to privacy to be essential part of right to life envisaged under Art.21 through its judgements. In *District Registrar and Collector v. Canara Bank*,¹⁵ Supreme Court of India provided with the definition of privacy. It defined privacy as "the state of being free from intrusion or disturbance in one's private or personal life or affair. And that it is an integral part of right to life, which is a cherished constitutional value." Moreover, in the case of *D.K. Basu v. State of West Bengal*,¹⁶ the Supreme Court, in the year 1997, was of the view that there is a need to develop scientific techniques and various methods in order to conduct interrogation or investigation of the accused.

Such tests of evidence collecting have been, time and again termed to be violative of art.20 (3) and Art.21. The right to a fair trial is a fundamental right which is available both to the victim and accused. The concept of fair trial and fair investigation is not only to be considered from the point of view of liberty or right of accused only and the victim should be given an equal access to such fundamental rights as the society also suffers where investigation becomes a casualty. Every individual has a right against inhuman treatment and such methods of extracting evidence only constitute of mental torture, hence, violating the right to life under its ambit along with the right to privacy read under it.

Admissibility of the Result in the Court of Law

The makers of the Indian Constitution were not framing the constitution on a clean state and while drafting the constitution, they kept the geographical necessities, cultural and social diversities and our historical precedents in mind. Till the present time, enough Narco Analysis has managed to yield substantially immense amount of evidence and information, it has also triggered the minds of various critics who have been very sceptic over the

¹⁴Francis Coralie Mullin v. Administrator, Union Territory of Delhi and Others (1981) SSC 608.

¹⁵District Registrar and Collector v. Canara Bank, 2005(1) SSC 496. 46

¹⁶D.K. Basu v. State of West Bengal, AIR 1997 SC 610.

administration of the serum on the subjects in order to extract truth. When it comes to whether the evidence collected is admissible in the court of law, most of the lawyers claim that the information extracted from a semi-conscious person is not admissible in the court of law.

In the case of *Ritesh Sinha v. State of Uttar Pradesh*¹⁷ J. RanjanaPrakash was of the opinion that simply “Taking of voice sample of accused is not violative of Article 20(3), although there is no specific statutory provision, but interpretation of provisions of Prisoner’s Act and Section 53 of Code of Criminal Procedure, showed that Magistrate has an ancillary or implied power to pass an order permitting taking or collecting the of voice sample to aid and conduct the police in investigation”. In the case of *Dinesh Dalmia v. State of Maharashtra*,¹⁸ the Madras High Court had held that “giving testimony through Narco Analysis was not a compulsion because the accused may be taken to the laboratories for such tests against his will, but the revelation during such tests is quite voluntary.”

The statements given on such methods together underline one statement which is that Narco Analysis test report maybe valid up to an extent and are not completely admissible in the court of law. However, it has been stated that results of such tests can be used to support other evidences or be used to obtain any admissible evidence. But in cases the where the results of these tests are not admitted in the competent court of law, such information cannot be used to support any other kind of evidence obtained during the period of investigation. After the Selvi case, the issue of admissibility of scientific evidence in the court of law has attracted a lot of serious debate in India. In the instant case the Supreme Court has ruled that such tests including Narco-analysis, Brain –mapping and polygraph cannot be conducted without availing the consent of the accused person. The Law Commission¹⁹ in its report was of the opinion that a provision intended for the examination of the body would result in the revealing of valuable evidence. There has to be an inclusion of a specific provision so as to include a medical examination during the process of an examination, regardless of the subject’s consent.

Selvi and Ors. V. State Of Karnataka and Other Relevant Case Laws

Narco analysis is steadily being mainstreamed into investigations, court hearings, and laboratories inside of India and has become a topic of significant discussion and debates.

¹⁷RiteshSinha v. State of Uttar Pradesh, 2013 (1) MLJ (Cri) 30.

¹⁸Dinesh Dalmia v. State of Maharashtra, Cr. L.J. (2006) 2401.

¹⁹ Law Commission of India, 41st Report, I, 1969

In the leading case of *Selvi v. State of Karnataka*,²⁰ the honourable Supreme Court very clearly underlined its answer to various doubts stating that on the basis of physical evidence and testimonial acts as regards to Narco Analysis, Polygraph tests and BEAP test. The court was of the view that the recorded results of such tests should be treated as testimonial and highlighted the difference between physical evidence and testimonial acts. In this present case, the substances enumerated are all examples of physical evidence and hence, the words 'and such other tests' which appear in the Explanation to Sections 53, 53A and 54 of the Cr.P.C. should be construed or understood to include the examination of physical evidence but not that of testimonial acts or procedures. With the above reasoning given in the *Selvi* case by the honourable Apex Court in its judgment, the court held that Narco analysis, Polygraph & BEAP tests are not included in 'and such other tests'. So, therefore a registered medical practitioner cannot conduct or prescribe to conduct these tests involuntarily.

In the case of *Ramchandra Reddy and Others v State of Maharashtra*,²¹ the Bombay High Court upheld the legal validity of the use of P300 or Brain Mapping and the Narco Analysis test. It also held the evidence obtained through such tests to be admissible in the court of law. But, the defence lawyers of the case and human rights activists viewed the Narco analysis test to be very primitive as a form of investigation and stated that there were legal lapses in the interrogation process with the use of drugs. In the case of *State of Bombay v Kathi Kalu Oghad*,²² headed by an eleven judge bench, it was observed that self- incrimination meant conveying information which is based upon the personal knowledge of the subject and cannot only merely include the mechanical procedures. In the instant case of *M.P.Sharma v. Satish Chandra*²³ the Apex court ruled that as the since the words used in Article 20(3) were "to be a witness" and not "to appear as a witness", so the protection extends to compel evidence to be obtained outside of the courtroom. The bench in this case also observed that such tests involved 'minimal bodily harm' which is has been highly debated as laxity in administration of drug can be fatal or injurious.

²⁰*Selvi v. State of Karnataka*,
AIR 2010 SC 1974

²¹*Ramchandra Reddy and Others v State of Maharashtra*,
AIR 1971 S.C 296

²²*State of Bombay v KathiKaluOghad*,
AIR 1961 SC 1808

²³*M.P.Sharma v. Satish Chandra*,
AIR 1954 SC 300

In the famous *Nuremberg Trial*, when the most notorious war criminal ever claimed, Rudolph Hess, was suffering from amnesia, the prosecutor refused to perform any Narco Analysis test on him as the possibilities of the test could be fatal. Moreover, in the case, *Rojo George vs. Deputy Superintendent of Police*,²⁴ the court allowed for the Narco analysis test, and it was of the opinions that in the modern times criminals have started to use very sophisticated and modern techniques for the commission of a crime. As a result, the conventional methods of investigating and questioning would not be enough or effective so new techniques like Narco Analysis and Polygraph tests were needed. And it cannot be argued that the investigating agencies have violated the fundamental rights of any Indian citizen.

Conclusion and Suggestion

The legal sphere is a living process and it changes with the changes and evolution in science and the society. The issue of using techniques like the Polygraph Test and Narco Analysis as a tool for extracting information from the accused is widely debated in India. When it comes to the relationship that is shared between the individual and the State, the equal becomes extremely equal when an accused is brought face to face with the machinery that contains massive official power. The judgement in *Selvi*, has reversed a decade old theory that had unfortunately become a staple feature of the Supreme Court's jurisprudence.

The judgement given in *Selvi* was further strengthened by the judgement affirmed by a nine judge bench in *Puttaswamy v U.O.I*.²⁵ The decision given in *Selvi*, drew a fine distinction between what is illegal and unconstitutional evidence and held that the exclusionary principle would apply to the latter. The maxim "*Nemo Tenetur Seiupsum Accusare*" which translates into "no man is bound to accuse himself", has originated in a protest against the manifestly unjust and unfair methods which are used for the interrogation of the accused person.

1. It is the duty of the State to ensure that all of the rights of its citizens are protected and that very subject gets an equal opportunity to a fair trial. A balance has to be created wherein, the State is empowered in its endeavour of maintaining public order

²⁴*Rojo George vs. Deputy Superintendent of Police*,
AIR 1953 SC 131

²⁵*Puttaswamy v U.O.I* AIR,
(2017) 10 SCC 1

and keeping the crime rates in control and at the same time there has to be clear and distinct limits upon such powers of the State.

2. Features such as accountability and dispense of information giving effect to public's "Right to Know" are indispensable. But at the same time, the standards of security, privacy and secrecy also need to be maintained and protected.