



Narco Analysis Test as Scientific development: A Critical Analysis

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“Memory is a men’s real possession. In nothing else is he rich, in nothing else is he poor. Crime wave deceives, Criminal mind perceives and criminal soul conceives”.

-Alexander Smith

Abstract: This article seeks to discuss some of the broad questions in the light of ever expanding use of Narco-Analysis, its validity with reference to the Law, criminal jurisprudence, the medical jurisprudence and the humanitarian related aspects of the accused. It looks into the historical efforts and the criminal instincts of the human mind, followed by the shadow of scientific advancements in the field of law and thereby evaluating of Narco Analysis in the 21st Century.

The objective of this dissertation is to identify the class of offences in which such techniques can be used and the manner in which such techniques are to be administered so that justice is not hampered at any cost. The Supreme Court in a recent judgment has held scientific investigative techniques like: brain mapping test, polygraph test and narco analysis, to be unconstitutional, Violative of right against self incrimination under Article 20(3) of the Constitution of India. The said right which is based on the principle of 'fair trial' states that: every person has a right to be heard, to stand and see what case has been made out against him and to speak for his defense that the case and evidences produced are absolutely inconclusive. It also includes the right not to speak anything which can make him liable for criminal charges. It is the duty of the prosecution to prove him guilty, without any help from him. But on the other hand 'justice' is the right of every victim. These techniques provide the agency with the clues to crime and thus can be a boon in terror related activities where justice to large number of innocent people is at stake. In such cases if we balance the 'right to remain silent' of the accused with the right to 'justice' of the victim, the latter

will have more weight age than the former. Another objective underlying this topic is to elucidate the legal and ethical justifiability of the 'Truth serum test'. This topic also discusses narco-analysis test as a medical process; its standpoint in the Indian social and legal system; its acceptability with the judiciary in consonance with the provisions of the municipal laws as well as the international laws including the treaties and the various conventions.

The question of the test being constitutional or not has been meticulously discussed from both the sides on the touchstone of Articles 20(3) which deals with person being a witness against himself and Article 21 which encompasses the Right to Life.

Introduction

The revolution of scientific technology is just like a fast flowing air and water. In the modern world of advancement, the scientific technology has also taken law under its shadow. According to the great social and political thinker Bertrand Russell Science has changed the face of administration of justice. It has spanned the skies of evidence, measured the truthfulness of witnesses and wrested from the criminals many hidden realities. Judicial system, particularly the criminal justice system is not untouched with the advancement of science relating to the investigating techniques, interrogation techniques and also forensic evidence. Forensic science basically is the use of science in matters of the law. Sciences used in forensics include any discipline which can aid in the collection, preservation and analysis of evidence. Forensic scientists work on developing new techniques and procedures for the collection and analysis of evidence so that highest standard of quality and accuracy is maintained. In recent years, advances in technology have given forensic scientists a variety of new tools of investigation and interrogation like the Polygraph test, the Narco--analysis (truth serums) tests, the DNA test and Brain Wave Finger Printing test, Spectrographic Voice Recognition, and Forensics Deontology and Bite- Marks. The intersection of law, science and technology has flourished to become the focal point for resolution of many important issues. The advancement of medical sciences and its influence on law are not new. The advancement of the medical science has led to the advance crime detection techniques from its most powerful branch i.e. Neuro law. The mind is the place of all the things and thoughts and neuro law deals with the study of the mind and the neurological process of the brain by the means of various medical and forensic techniques.

Narco Analysis: Meaning & Definition

As science has outpaced the development of law there is unavoidable complexity regarding what can be admitted as evidence in court¹. Narco analysis is one such scientific development that has become an increasingly common term in India. The word Narco-Analysis had its origin in the 20th Century and is coined from 'narco'- 'analysis' It means psychoanalysis using drugs to induce a state akin to sleep². The term Narco-Analysis is derived from the Greek word "narko" meaning, "anesthesia" or "torpor" and is used to describe a diagnostic and psychotherapeutic technique that uses psychotropic drugs to induce a stupor in which mental elements with strong associations come to the surface where they can be exploited by the therapist. Greek narko- from narkoun, to numb, from narke, numbness³. The search for effective aids to interrogation is probably very difficult. Physical coercion has at times been substituted for painstaking and time-consuming inquiry in the belief that direct methods produce quick results.

Development of new tools of investigation has led to the emergence of scientific tools of interrogation like the narcoanalysis test. Narco-analysis, as part of criminal investigative practice, is the administering of chemical drugs by the police to a suspect or witness in order to extract information from him/her by asking questions while in a drugged state. Narcoanalysis can be defined as "psychotherapy conducted while the patient is in a sleep-like state induced by barbiturates or other drugs, especially as a means of releasing repressed feelings, thoughts, or memories". As science has outpaced the development of law there is unavoidable complexity regarding what can be admitted as evidence in court. Narco analysis is one such scientific development that has become an increasingly common term in India. This test involves the intravenous administration of a drug that causes the subject to enter into a hypnotic trance and become less inhibited. The drug-induced hypnotic stage is useful for investigators since it makes the subject more likely to divulge information. The drug used for this test is sodium pentothal, higher quantities of which are routinely used for inducing general anesthesia in surgical procedures. This drug is also used in the field of psychiatry since the revelations can enable the diagnosis of mental disorders. This test has been dealt elaborately in the following chapters.

¹ Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579 (1993) referred to in Lakshman Sriram, Narco analysis and some hard facts, Frontline, May. 05-18, 2007 Volume 24 Issue 9

² Black's Law Dictionary

³ <http://www.thefreedictionary.com/narco->

Testing Procedure under Narco Analysis Test

Narco-Analysis is done by the means of "truth serum" which is defined as a barbiturate or drug administered in milder doses to make the recipient become very communicative and share his thoughts without hesitation. The recipient of the said drug is likely to lose his inhibition, and therefore he is more likely to tell the truth. The "truth serum" or Thiopental Sodium is the drug which is normally used in the process of Narco-analysis. This drug is commonly known as Sodium Pentothal which is a yellow crystal, soluble in water or alcohol and is a sedative used as an anti depressant. Narco Test refers to the practice of administering barbiturates or certain other chemical substances, most often Pentothal Sodium, to lower a subject's inhibitions, in the hope that the subject will more freely share information and feelings. A person is able to lie by using his imagination. In the narco-Analysis Test, the subject's inhibitions are lowered by interfering with his nervous system at the molecular level. In this state, it becomes difficult though not impossible for him to lie. In such sleep-like state efforts, are made to obtain "probative truth" about the crime. Experts inject a subject with hypnotics like Sodium Pentothal or Sodium Amytal under the controlled circumstances of the laboratory⁴. Narco-analysis is not an extraneous method. It is developed on well based principles of bioscience. The principle involved in this test is to take a person to a state of 'disinhibition' by using the controlled dosages and the rates of administration of Sodium Pentathol. The drug Sodium Pentathol binds GABA (a Neuro Transmitter Inhibitor) forming a complex at the site which exerts control over the permeability of chloride ions into neural membrane leading to the attainment of "the state of disinhibition." It has been established that this removes the barrier of disinhibition and it is difficult for anyone to lie at this stage. The characteristics of this drug are:

- a. When administered intravenously, effective concentration in the brain will be achieved in 30 seconds due to high lipid solubility and strong hypnotic action.
- b. Recovery from 'disinhibition' stage is rapid due to redistribution of the drug to the tissues
- c. Depletion of the drug from concentration in the blood is rapid.

⁴ <http://www.legalserviceindia.com/article/1176-Narco-Analysis.html>

The drug is administered in dosages and stages, they are illustrated in the following table:-

Stage	Description	Drug Concentration In Blood (63406;/ml)
I	Awakening	05
II	Hypnotic Stage	05-10
III	Sedative	10-15
IV	Anesthetic	15-20

The dose is dependent on the person's sex, age, health and physical condition. The subject which is put in a state of Hypnotism is not in a position to speak up on his own but can answer specific but simple questions after giving some suggestions. The subject is not in a position to speak up on his own but can answer specific but simple questions. The answers are believed to be spontaneous as a semi-conscious person is unable to manipulate the answers. Wrong dose can send the subject into coma or even result in death. The rate of administration is controlled to drive the accused slowly into a hypnotic trance. The effect of the bio-molecules on the bio-activity of an individual is evident as the drug depresses the central nervous system, lowers blood pressure and slows the heart rate, putting the subject into a hypnotic trance resulting in a lack of inhibition.

When the drug, sodium pentothal, is administered intravenously, the subject ordinarily descends into anesthesia in four stages, namely⁵:

1. Awake stage
2. Hypnotic stage
3. Sedative stage
4. Anesthetic stage

A relatively lighter dose of sodium pentothal is injected to induce the 'hypnotic stage' and the questioning is conducted during the same. The hypnotic stage is maintained for the required period by controlling the rate of administration of the drug. As per the materials submitted before us, the behavior exhibited by the subject during this stage has certain specific characteristics, namely:-

⁵ Laboratory Procedure Manual - Forensic Narco-Analysis (Directorate of Forensic Science, Ministry of Home Affairs, Government of India, New Delhi - 2005)

- It facilitates handling of negative emotional responses (i.e. guilt, avoidance, aggression, frustration, non-responsiveness etc.) in a positive manner.
- It helps in rapid exploration and identification of underlying conflicts in the subject's mind and unresolved feelings about past events.
- It induces the subject to divulge information which would usually not be revealed in conscious awareness and it is difficult for the person to lie at this stage
- The reversal from this stage occurs immediately when the administration of the drug is discontinued⁶.

The personnel involved in conducting a 'narco-analysis' interview include a forensic psychologist, an anesthesiologist, a psychiatrist, a general physician or other medical staff and a language interpreter if needed. Additionally a videographer is required to create video-recordings of the test for subsequent scrutiny. In India this, technique has been administered either inside forensic science laboratories or In the operation theatres of recognized hospitals. While a psychiatrist and general physician perform the preliminary function of gauging whether the subject is mentally and physically fit to undergo the test, the anesthesiologist supervises the intravenous administration of the drug. It is the forensic psychologist who actually conducts the questioning. Since the tests are meant to aid investigation efforts. the forensic psychologist needs to closely co-operate with the investigators in order to frame appropriate questions. This technique can serve several ends. The revelations could help investigators to uncover vital evidence or to corroborate pre-existing testimonies and prosecution theories. Narco-analysis tests have also been used to detect 'malingering (faking of amnesia). The premise is that during the 'hypnotic stage' the subject is unable to willfully suppress the memories associated with the relevant facts. Thus, it has been urged that drug-induced revelations can help to narrow down investigation efforts thereby saving public resources. There is of course very real possibility that information extracted through such interviews can lead to the uncovering of independent evidence which may be relevant. This in contrast is far better than the third degree methods that are adopted by the police to secure information.

4. NARCO ANALYSIS: AN EVALUATION

Law should be read with other disciplines because all branches of knowledge are so interrelated that none of them can be studied in isolation one of them being science. In modern

⁶ Laboratory Procedure Manual — Forensic Narco-Analysis (Directorate of Forensic Science, Ministry of Home Affairs, Government of India, New Delhi — 2005, & John M. Macdonald, 'Truth Serum,46(2) The Journal of Criminal Law, Criminology and Police Science 259-263 (Jul.-Aug. 1955)

times with the advent of technology and increasing knowledge of the same, the criminals are gaining a lot from it. To catch up to the standards of such technically advanced and intelligent criminals, who leave no evidence, Narco Analysis has come as a relief for the investigation agencies. It is the duty of the prosecution to prove the accused guilty, without any help from him. These techniques provide the investigating agency with the clues to crime and thus can be a boon in terror related activities where justice to large number of innocent people is at stake.

In such cases if we balance the 'right to remain silent' of the accused with the right to – 'justice' of the victim, the later will have more weight age than the former. The narco analysis test is still in its initial stages and its reliability, admissibility and the question of its accuracy has always been an issue. During the investigation it takes great skill on part of the interrogators to extract and identify information which could eventually prove to be useful and could be used as important evidence in convicting the culprit.

The neuroscientific tests are also considered as easy and humane as compared to the "third degree" methods of criminal investigation. Narco-analysis suspends the inhibition in an individual. and facilitates in extracting the truth. These tests are not considered as reliable means of evidence and can sometimes lead to the conviction of an innocent Person but it is also the need of the hour to introduce innovative methods to prove the accused guilty where the convicts are released without any punishment on the grounds of insufficient evidence to prove their guilt. The low conviction rate is also an alarming issue and these tests can be very helpful for the investigating agencies. This method of truth extraction would be helpful in extracting much needed information where there is a huge loss to the exchequer as was in the case of State By stamp Investigation Team vs Abdul Kareem Telgi @ Kareem Lala⁷ where numerous of top officials were involved and huge amounts of loss were incurred by the government, In cases of such magnitude it would be a utopian concept if an individual's rights have be secured in an airtight container endangering the interest of the general society. That being another thread of argument, Narco-analysis does not violate any rights at all; it is only a tool to assist in extracting truth.

Findings that discredit narco-analysis are usually based on studies of scopolamine and sodium amytal and are not applicable to sodium pentothal, which is used by the Indian laboratories. He further added that during narco-analysis the tendency is to sleep if not questioned, rather than hallucinating or fantasizing.

⁷ ILR 2003 KAR 3702

An area of brain monitoring or imaging with immediate obvious value in the law is the development of neuroscience based lie detection. Several technologies currently being explored. However, the neuroscientists cautioned, the existing techniques are not based upon a clear neuroscientific understanding of the phenomena of lying. The lack of any underlying cohesive theoretical framework means that the current work relies solely on experiments correlating brain activity with the act of lying, essentially "shooting in the dark." The most significant hurdle facing accurate lie detection is what he could term "the problem of memory." While it seems likely techniques might be developed to detect when someone is intentionally lying, several scientists expressed doubt that one could easily detect when someone is merely mistaken—that is, when someone is subjectively telling the truth but is factually wrong. While this circumstance may be a hurdle that will one day be overcome, scientists viewed it as a substantial problem common to many of the scientific approaches to lie-detection. It is also important to be aware of the limitations of the 'narco-analysis' technique. It does not have an absolute success rate and there is always the possibility that the subject will not reveal any relevant information. Some studies have shown that most of the drug-induced revelations are not related to the relevant facts and they are more likely to be in the nature of inconsequential information about the subjects' personal lives. It takes great skill on part of the interrogators to extract and identify information which could eventually prove to be useful. While some persons are able to retain their ability to deceive even in the hypnotic state, others can become extremely suggestible to questioning. This is especially worrying, since investigators who are under pressure to deliver results could frame questions in a manner that prompts incriminatory responses. Subjects could also concoct fanciful stories in the course of the 'hypnotic stage'.

Since the responses of different individuals are bound to vary, there is no uniform criterion for evaluating the efficacy of the 'narco-analysis' technique. Scientific studies demonstrate that the test is not foolproof and even induces confessions from innocent persons, as the subject is in a highly suggestible state and prone to give false or misleading answers to questions that may be improperly framed. Research suggests that these tests are ineffective on individuals who are determined to lie, as they are usually still able to lie even when drugged. Studies have shown that persons who make truthful confessions are those who were likely to confess had interrogators persisted with regular methods; and that persons who lie can continue to manifest a lie even under the influence of a so-called truth serum. It is also feared that memories may be "planted" in the subject's brain during questioning; a person may come to believe that he has actually committed

the crime, even though in reality he is entirely innocent. Research shows that there is a very high risk of “a gross miscarriage of justice through undue dependence upon unreliable statements”⁸ .

5. Conclusion

Law is a living process, which changes according to the changes in society, science ethics and so on. The legal system should imbibe developments and advances that take place in science as long as they do not violate fundamental legal principles and are for the good of the society. Neuro law is an emerging field of interdisciplinary study that explores the effects of discoveries in neuroscience on legal rules and standards. Drawing from neuroscience, philosophy, social psychology, cognitive neuroscience, and criminology, Neuro law practitioners seek to address not only the descriptive and predictive issues of how neuroscience should and should not be used the criminal justice system should be based on just and equitable principles. The issue of using narco-analysis test as a tool of interrogation in India has been widely debated. The extent to which it is accepted in our legal system and our society is something which will be clear in the near future. In a situation where narco-analysis is gaining judicial acceptances and supports despite being an “unreliable & doubtful” science we have to seriously rethink about its legal and constitutional validity from human rights perspective. There should be no prohibition on conducting a Narco-Analysis test on him as the protection under Article 20(3) is available only to a person accused of an offence. Another requirement of Article 20(3) is that there should be no compulsion on the accused to give testimony against him. However, in Narco-Analysis test, the question of compulsion does not arise because the prior consent of the person who is supposed to undergo such a test is always taken. In fact, the Supreme Court in *State of Bombay v Kathi Kalu Oghad* held that there is no compulsion when a police officer, in investigating a crime against, a certain individual, asks him to do a certain thing. The fact that a person was in police custody when he made the statement is not a foundation for interference that he was compelled to make the statement. The mere questioning of an accused by a police officer, resulting in a voluntary statement, which may ultimately turn out to be incriminatory, is not compulsion. Considering, all these we can easily conclude that Narco Analysis does not violate Article 20(3) to the extent that the person undergoing such a test is not compelled to do so; rather it is done with the consent of the person who has full knowledge of such a test. The third requirement of Article 20(3) is that there should be compulsion to give evidence against oneself. Only incriminatory statements are hit by Article 20(3). Whether a statement is incriminatory or not can be ascertained only after the test is conducted and not before it. Hence, I do not see any reason to prohibit such a test because

⁸ The Hindu article “We need to talk about narcoanalysis” published on May 2, 2007

there are enough protections available under the Indian evidence Act, under Criminal Procedure Code and Article 20(3), to prevent inclusion of any incriminating statement if one comes out after administration of the test. By conducting Narco Analysis, the investigating agencies might discover some information which will help them in the investigation of the crime and thus find out the true culprit. In case, during the test, the accused makes a statement that is incriminatory that need not be made admissible in court as it is against article 20(3), but the rest of the information can definitely be used by the investigating agencies to solve the case. The above discussion very clearly suggests that Narco-Analysis test can be conducted without violating Article 20(3).

The Indian Courts have so far refused to admit Narco-Analysis as evidence, but Narco-Analysis is being carried out by the investigators. The reason is that although confession made to the police or in the presence of police is not admissible in Courts, the information is admissible by which an instrument or object used in commission of crime is discovered. This is clear from the wording of Section 27 of the Indian Evidence Act, 1872. Section 27 of the Indian Evidence Act, 1872 is founded on the principle that if the confession of the accused person is supported by the discovery of a fact, the confession may be presumed to be true, and not to have been extracted. It comes into operation only; (i) if and when certain facts are discovered in consequence of information received from an accused person in police custody; and (ii) if the information relates distinctly to the fact discovered. If the self-incriminatory information given by an accused person is without any threat that will be admissible in evidence and will not be hit by Article 20(3).

Section 156(1) of the Code of Criminal Procedure which reads "Police officer's Power to investigate cognizable cases" states that any officer in charge of a police station without the order of a Magistrate can investigate any cognizable case which a court has power to inquire into or try under the provisions of Chapter XIII. Investigation" as defined in Section 2(h) of Criminal Procedure for the collection of evidence conducted by a Police Officer or by any person (other than a Magistrate) who is authorized by a Magistrate in that behalf. Thus, collection of evidence by Police Officer is permitted under law. Conducting Narco-analysis Test on accused is in the process of such evidence by the investigating agency. The Karnataka High Court also made a similar observation in the case of Smt. Selvi and Ors v State by Koramangala Police Station. This provision is also constitutionally valid.

Where the accused had not allegedly come forward with the truth, the scientific tests are restored to by the investigation agency. Such a course does not amount to testimonial compulsion. From the above discussion, it is very evident that conducting a Narco-Analysis test does not violate

Article 20(3) per se. only after conducting the test, if the accused divulges information which is incriminatory, then it will be hit by Article 20(3). Other information divulged during the test can help the investigation. Thus, there is no reason why we should prohibit such a test on grounds of unconstitutionality.