

**Twenty second  
Dr. Ramanadham  
Memorial Meeting**

**Peoples Union for Democratic Rights  
Delhi, 2008**

**Introduction**

Every year PUDR organizes a Dr Ramantham memorial lecture on a topic of contemporary interest. Last year it was on the issue of struggle over urban land and rights of working people to shelter and livelihood. The year before that it was on agrarian relations in India. This year we focus on the issue of narco-analysis. Why?

Let me briefly contextualize it.

Ujjwal Singh in his book *The State, Democracy and Anti-terror Laws in India* refers to “violence of jurisprudence” as a concept which “refuses to see law as an antithesis to abuse of power and violence”. He goes on to say that “the dichotomy between law and violence is false” when examined because there is an “awesome physical force that law deploys...(and) law becomes an integral part of the organization of state violence”.

A close study of the Unlawful Activities Prevention Act 2004 shows how it criminalizes “intent” i.e. what is in the mind of a person even as they proscribe speech, right to assembly, and to organize and struggle.

If we turn to the Draft National Policy on Criminal Justice prepared by the Madhava Menon committee, released in July 2007, it claims that “(i)n some countries, laws have been changed drastically, projecting crime control as immediate goal of the state. India is still showing a great deal of patience in the hope that wisdom will prevail and violence will abate”. This being the self-image of the votaries of the Indian State it is rather incongruous that the same authors -approvingly quote Fali Nariman to argue for “modification” in the ‘right to silence’ in “some circumstances”. And that “adverse inferences” can be drawn from the silence of the accused. It needs no rocket science to know which are those “circumstances” and which category of accused could be brought under its purview. This amounts to diluting the protection against self-incrimination offered by Article 20(3) under the excuse of “special circumstances”-. We know all too well what is special circumstance translates into normal circumstances just as extraordinary provisions become permanent features of ordinary laws.

But this is not all.

The Madhava Menon Committee also refers to the recommendations of the Malimath Committee (2003) and Second

Administrative Reform (2007) which stated that statements made to police including audio/visual recordings of confessions be made admissible with the condition that accused is informed of his right to consult a lawyer. The Madhava Menon Committee justifies this by claiming that this requires “serious consideration in situations where the crime is committed in secrecy and eyewitnesses are not available or where circumstances do establish that it is well within the knowledge of the accused how the crime was committed.” It then adds that blocking “such evidence totally....is neither logical nor prudent particularly when there are technological and procedural guarantees now available to ensure the voluntary character of such statement”. And little later says that “the Evidence Act may need to be amended to make scientific evidence admissible, particularly those which have assumed universal acceptability because of accuracy and reliability”.

Thus definition of a crime under UAPA, likely curtailment of right to “silence” and making admissible confessions made to police officers in police custody amount to a formidable assault in themselves. Read together with this narco-analysis forms a quartet which is downright dangerous.

The Madhava Menon committee devotes an entire chapter to scientific tools of investigation and it is the contention of the authors that these can “help improve capabilities of the police in apprehension of criminals, curtail unnecessary arrests, reduce response time, avoid use of third degree methods in detection and interrogation, improve prospects of proof through scientific evidence....” etc. Some of these high-tech tools are “DNA fingerprinting, cyber forensics, narco-analysis, brain-mapping et al”.

Narco analysis is an attack directed at our minds right now confined as an investigative tool. Since all crimes take place in our minds before they are executed, the argument is that by investigating an accused’s mind, with or without consent, would help investigation process. Whereas we fear that we are headed in the direction of mind control or a form of mind manipulation. The leap from drugging a person to probing his mind, to manipulating a person’s thought processes might appear a science fiction, but it is now part of the probable domain. Keeping in mind which ideas and organization are proscribed it is evident that accused covered under UAPA are particularly vulnerable.

Thus step-by-step we are creating a new jurisprudence which

permits much of what liberal jurisprudence had hitherto found unacceptable. And this is driven under the name of combating new types of crime. In the process, constitutional protections are being diluted, conventional investigating tools and procedures associated with them are being replaced in the name of fighting extraordinary crimes in our times. But as we know so very well in India draconian legislations once introduced with promise of being temporary become permanent fixture. Or their provisions are incorporated in so-called ordinary law investing them with draconian characteristics. Now we are on the cusp of seeing narco-analysis, which has been touted as an investigating tool, on its way to being elevated to the status where the results of the test themselves will be made admissible as evidence.

There are no figures available of how many people have been put through narco-analysis in India in past years. One thing is clear that recordings of such narco-tests are helping electronic channels to meet their insatiable demand for material to fill time on a dry day, fill the pockets of those police personnel who have access to these recordings and a useful tool of blackmail by those who have access to them. But above all it projects the accused as a criminal.

PUDR believes that such tests illustrate the inherent violence of *some* of these supposedly scientific technologies which are being touted as tools of investigation right now but which may become admissible evidence, and of trial by media.

Therefore, we need to know more about narco-analysis. In fact know what is narco-analysis? What does it entail? How reliable is it? What are the problems associated with it? And how does the medical profession look at such tests? That is why we have Dr Amar Jesani to speak on the medical-ethical dimension of the narco tests. The remarkable thing about Dr Amar Jesani, which will become evident, when I give him chance to speak, is that he knows what he is talking about both as a professional and a patient. For those who do not know Amar Jesani he is a founder member of Medico Friends Circle, one of the editors of the *Journal of Bio-Medical Ethics*. a member of the Centre for Enquiry into Health and Allied Themes (CEHAT), is associated with Achyuta Menon Centre for Health Science Studies (Trivandrum), with the Department of Civics and Politics, Mumbai University, and is a member of the Indian Council of Medical Research....And he filed a case against Dr Praveen Togadia with the Medical Council of India to get his license revoked for his involvement in hate propaganda and violence in 2003.

## **PUDR's Paper**

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. Three grams of sodium pentothal dissolved in 3 litres of distilled water are injected in one's veins along with 10 per cent dextrose, slowly over 3 hours. This injected cocktail is believed to depress the body's central nervous system, putting the subject in a state of trance, hence suppressing the rational faculties that would be present if questioned when fully awake. —

While the dubious practice on injecting drugs such as scopolamine, sodium amytal and sodium pentothal has been practised and discarded by a number of countries over the last century, it has been prevalent in India for only half a decade. However it is gaining popularity in police investigations and has been used in a number of high-profile cases, including that of Abu Salem, Abdul Karim Telgi, the Hyderabad bomb blasts and the Nithari killings. Narco-analysis has also increasingly been used against activists, including against Arun Ferreira, Ashok Reddy, Naresh Bansod and Dhanendra Bhurle, who were arrested on 9 May 2007 by the Nagpur police under the Unlawful Activities (Prevention) Act.

It is inevitable that in the coming years, targeting of activists by the use of narco-analysis as a form of torture is only going to increase. In recent years, when repression is intensifying as resistance to displacement, SEZs, land acquisition, and other economic policies is growing every month, the rights of struggling people, of those who attempt to organize them, and now even of those who speak out in defence of people's rights, are getting more distant from public concerns. Elite societal support for, and at best indifference to, systemic violation of people's basic economic and political rights, both collective and individual, mirrors the role of state institutions – police, bureaucracy, judiciary, etc – in shrinking those rights. We fear that in this wider context of changed economic policy, repression of people's movements and indifference to violation of people's rights, narco-analysis as a form of torture will be increasingly resorted to. Narco-analysis raises a host of ethical, legal, and medical issues, hence its pertinence as the topic for the Dr Ramanadham Memorial Meeting this year.

## **Issues of Grave Concern**

Formal law and modern jurisprudence include certain liberal principles, in theory – that a person is innocent until proven guilty; that a suspect or an undertrial cannot be physically or mentally pressured in any way to extract information; that a witness or a suspect has the right not to incriminate oneself, that a witness has a right to remain silent. Narco-analysis violates all these principles.

In India, reality has always been different from theory. Over the last 25 years, PUDR has investigated a number of cases of custodial deaths and rapes in Delhi. Often these custodial deaths were a result of intentional violence and torture inflicted on the poor in custody with the purpose of extracting confessions of presumed guilt. While narco-analysis appears a more refined form of torture, it remains torture nonetheless. Further, the official sanction and institutionalization of such forms of torture too raises a number of grave concerns.

**1. The question of consent:** In the well-known case against Gujarat DIG Vanzara, accused in the case of fake encounter killing of Sohrabuddin, the Ahmedabad Metropolitan Magistrate underlined that such tests cannot be carried out “without the express consent of the accused”. In November 2006, the Supreme Court ordered a stay on narco-analysis being carried out without consent on K. Venkateswara Rao, in a case involving the Krushi Cooperative Urban Bank. However, such welcome caution is likely to be thrown to the winds when the subject/ accused is dalit, poor, or are activists whose politics is considered suspect by the state, as happened in the case of Arun Ferreira.

**2. Dangerous side-effects:** It is believed that sodium pentothal, if administered improperly, could lead to coma and even death. The possible life-threatening side effects of pentothal include harmful effects on blood circulation and breathing, apnoea (stopping of airflow during sleep) and anaphylaxis (a rapidly progressing, life-threatening allergic reaction of the immune system). According to one paper, its effects on the central nervous system “may lead to retrograde amnesia, emergence delirium, besides many other side effects”. Consent implies informed consent. There is little doubt that the subjects are unaware of these dangers when their ‘consent’ is being secured.

**3. Violates the constitutional right against self-incrimination:** The use of narco-analysis violates Article 20 (3) of

the Constitution, which states that “No person accused of any offence shall be compelled to be a witness against himself.” Similarly, section 161 (2) of the CrPC states: “Such person shall be bound to answer truly all questions relating to such case put to him *...other than questions the answers to which would have a tendency to expose him to a criminal charge or to a penalty or forfeiture.*” These are fundamental principles of criminal law ensuring that the accused has the right to keep silent during the course of investigation. Narco-analysis negates such protections by making redundant the right to silence of the subject. If interrogated when in his/her full senses, the subject may choose to remain silent. However by breaking down rational defences, narco-analysis undermines both an individual’s right to remain silent and the principle behind this right.

The use of narco-analysis to effectively over-ride the right to silence of the accused must also be seen within the broader project of ‘reforming the criminal justice system’ to enhance convictions. In fact, both the recent Madhava Menon Committee and the previous Malimath Committee on the criminal justice system had proposed that silence maintained by an accused in response to questions during interrogation should be held adversely against the accused. While the Law Commission of India has previously rejected such a move, it appears that narco-analysis is being promoted as an indirect means to over-ride the constitutional right to silence and the right against self-incrimination.

The use of narco-analysis raises a number of other concerns as well. The recording and subsequent public release of statements made by drugged subjects adversely impacts their right to a fair trial. The use of these statements for ‘recovery’ and ‘discovery’ of facts/ materials and as corroborative evidence where recoveries are made may also be permissible despite the highly dubious scientific value of the ‘evidence’ extracted, making it possible for third persons being charged or charges being added as a result of such statements.

**4. Dubious scientific value:** Several authorities, medical and otherwise, have questioned the accuracy of the information extracted under narco-analysis. Under these drugs, subjects are prone to delusions, hallucinations and tend to go along with suggestions made by interrogators. P. Chandra Sekharan, one of India’s foremost and most respected forensic experts, has said, “even under best conditions, they will elicit an output contaminated by deception, fantasy, garbled speech, etc”. His research paper gives examples of people under narco-

analysis, one who claimed to have a child that did not exist, another who threatened to kill someone who had already been dead for over a year, and a third who confessed to robbing goods he had just bought. A paper for the CID by the Superintendent of Police M. Sivananda Reddy concurs, underlining the “baffling mixture of truth and fantasy in drug-induced output”.

**5. Narco-analysis is nothing but a form of torture:** The speaker today Dr Amar Jesani has rightly said that torture is not just physical, but also “includes the use of methods intended to obliterate the personality of the victim or diminish physical or mental capacities.” We believe that narco-analysis’ inhibiting of rational faculties and its potential medical side-effects effectively reduce narco-analysis to nothing but a form of torture. According to P. Chandra Sekharan, narco-analysis and related tests are merely replacing physical third-degree interrogation with a psychological third-degree mode. It is important to note that the United Nations has called upon medical doctors to abstain from participating in the use of such technologies, reiterating the importance of medical ethics.

Yet, a number of courts in India have allowed these tests to take place without examining the varied dangers of such tests. PUDR holds the view that narco-analysis and other ‘truth detection’ techniques including brain-mapping violate constitutional rights including the right against self-incrimination and amount to torture. They further have dubious scientific basis and place the subjects in a further vulnerable position vis-à-vis the police and other investigating authorities. **We demand that** narco-analysis, brain-mapping and other similar ‘truth-detection’ techniques presently being used be completely stopped by the Government, that doctors stop carrying it out; that Magistrates reject police requests for such interrogation and that the Indian Supreme Court rule against the constitutionality of such testing.

---

## **Dr Ramanadham Memorial Lecture by Dr Amar Jesani**

Friends,

I did not know Dr Ramanadham personally, though he was active at the same time when I was also very active in the trade-union and human-rights movements. Born in Gujarat, I have lived in Bombay since 1979. In Gujarat, when we got politicised during the student movement - you must have heard about the Nav Nirman movement - and started working in different activist organisations, we heard about Dr Ramanadham quite often. It was in mid 1980s, when we had just started a journal, the *Socialist Health Review* (later renamed as *Radical Journal of Health*), that we heard of his death. We published an article on him. His work inspired many of us, for the involvement of medical professionals in doing something progressive is quite rare in India. Amongst such rare doctors today, we have Dr Binayak Sen, a friend of ours who has used his professional skills only for the poor and involved himself in human-rights work. The Chhatisgarh government has imprisoned him on false charges. Incidentally, both Dr Ramanadham and Dr Binayak Sen specialised as paediatricians.

Somehow the medical profession has participated more in the violation of democratic rights, or in conservative and anti-people activities. Praveen Togadia, a cancer surgeon, is an example of a medical person involved not only in hate campaigns but also in mobilising people to kill others. And Praveen Togadia in Gujarat is not the only one; the Gujarat Vishwa Hindu Parishad president was also a doctor.<sup>1</sup> In 1995, Indian Medical Association (IMA) had done a survey of medical persons to find out what they knew about torture. They found that almost 60 per cent of the doctors believed that torture was justified in certain circumstances<sup>2</sup> and saw no harm in doing it! So, clearly, a caring profession can not only be very uncaring, it can also go against the well-being of the people. A major problem of the medical profession is the rampant violation of ethics. We consider this larger issue - the direction in which the profession is going - a

---

1. For more information, please see: Medico Friends Circle, *Carnage in Gujarat: A public health crisis* (Pune: 2002).

2. Indian Medical Association (IMA), *Report on Knowledge, Attitude and Practice of Physicians in India Concerning Medical Aspects of Torture*, p. 24 (New Delhi: 1995).

very important one, and that is one reason why we are involved in the campaign around medical ethics or, what we call, bioethics.

I also want to say something about the human-rights and democratic-rights organisations. I have been active in human-rights organisations in the 1970s and 1980s. I encountered many dilemmas while working in these organisations. They were related to the way they picked up issues for intervention. I observed that issues were often not picked up on the basis of their importance to human rights, but on sectarian consideration of whose rights were violated. Because many activists of such organisations were affiliated with certain types of political groups or ideologies, cases involving violations of the human rights of those particular groups would be picked up sooner than those of others. That also happened in the case of narco-analysis. The human-rights organisations were late in picking it up as an important issue. Narco-analysis was started almost seven years back in India, and was also accompanied by the increased use of lie-detection testing. Although such methods were in violation of human rights, hardly any protest was raised when they were used on so-called criminals. The Bangalore Forensic Science Laboratory started doing narco-analysis on people alleged to be associated with Veerappan. Then came the better-known case of Abdul Karim Telgi, besides many other such people, who were subjected to narco-analysis. Not only that, even those accused of burning the Sabarmati Express in Godhra were subjected to narco-analysis in 2002 in a public hospital in Baroda. However, despite such frequent use of this technique by the state, it is unfortunate that the issue was not taken up in a big way by the human-rights organisations. For that, we had to wait till 2007 when radical activists were arrested and subjected to narco-analysis. We need to broaden our appeal on this issue and start campaigns that can have an impact on different professions as well as different strata of people.

### ***Involvement of doctors in torture and death penalty***

The involvement of the medical profession in such activities is not new. Historically, medical professionals have always been involved in designing techniques for torture as well as death penalty all over the world, and India is no exception. Most of the time, doctors cheerfully participate for two reasons or, should we say, due to two *misconceptions*. One, that when these things are inevitable, the argument goes, why not do something to at least make them humane? In other words, to aim at making torture and killing painless,

accompanied by the least possible suffering. And, two, that the more efficient a method, the quicker would be the result and, hence, the less would be the pain and suffering. That is why, they would argue, one should try to improve the efficiency of the method of torture or execution.

Doctors have been involved in teaching the police how to torture a person in a manner that it does not kill even as the person is made to undergo extreme pain, and in keeping the tortured persons alive or treating them. Most of the time when I was working for human-rights organisations, we used to take up campaigns when somebody died in police lock-ups. Immediately, there would be a small committee of journalists, lawyers and doctors like me, and we would go around doing the investigation and then come out with a report. Normally, our scrutiny was focused on the conduct of the police because the police was the culprit in the killing. But I found that in all these cases, even if a doctor was not directly involved in carrying out the torture, often the tortured person would have been brought for treatment to the medical personnel in a public hospital. When tortured persons start vomiting blood or become seriously injured, they are normally brought to a public hospital where doctors treat them and then allow them to be taken back to the police lock-ups for more torture. The doctors restore a tortured person to health so that that person can be interrogated again in the same manner and information or confession extracted. The aim of torture is not to kill, often killing is regarded as failure and so medical help may be needed to keep the tortured person alive. It is in this cycle of torture-torture, treatment, torture-that there is intentional or unintentional involvement of doctors.

The involvement of doctors in carrying out death penalty is well-documented. In India, even the judiciary forces doctors to participate in these executions. In 1995, the Supreme Court struck down a provision in the Punjab and Haryana Prison Manual related to hangings.<sup>3</sup> The prison manual said that a person who is hanged should be kept hanging for half an hour. The reason was very simple. It was in the nineteenth century, in colonial times, that hanging had emerged as a more efficient and *humane* method of judicial killing. In hanging, the knot and its placement is required to be such that the impact of

---

3. Permanand Katara, Advocate v/s Union of India and another, Writ petition no. 827 of 1991, decided on January 19, 1995, in *Supreme Court Cases (SSC)*, 1995: 3, pp. 248–9.

hanging breaks a vertebra in the neck, which leads to severe injury to a crucial part of the brain, thus killing the person instantaneously. However, the technique is too dependent on the placement and quality of the knot. In many cases, however, it does not lead to the fracture of the said vertebra in the required manner, or the knot slips, so there is no instantaneous death, and the person has to be kept hanging so that death is caused by asphyxia. So the colonial administration had this half-an-hour rule: keep the person hanging for half an hour, as it is impossible to remain alive that long with the oxygen supply cut-off. But the petitioners argued that that it was barbaric... Was it appropriate to keep a dead person hanging in such a manner? This implied that person should be brought down as soon as possible! And our courts agreed that this really was a barbaric way of killing. So they passed the order... A doctor should be called upon to examine the hanged person soon after the noose tightens, they said. And, as soon as the doctor found the person dead, the body should be brought down. So, since 1994, the doctor examines the person who is hanging every few minutes and finally tells the prison authorities, "Now he is dead, so bring him down." But before that, if the person is alive, the doctor gives instructions to keep him hanging: "He is still alive, keep him hanging!"

Now, this makes the doctor barbaric. The doctor, whose job is to heal, to give life, is made to collude in the actual judicial killing by playing the role of assisting the hangman. The doctor is distressed on finding the hanging person alive and directs that the person be kept hanging, instead of resuscitating, giving relief and life to that person. This is a travesty of the fundamental principles of the professional ethics of doctors. And, cheerfully, our Medical Associations and other associations have allowed this judgment to go without any challenge.<sup>4</sup>

### ***Examining the Science of narco-analysis***

The process in which a bulk of any profession turns against humanity does not happen overnight. The Nazi physicians, who used their medical skills to participate in atrocities, did not become inhuman

---

4. There was one exception, though. Immediately after the judgment in 1994, the Forum for Medical Ethics Society that publishes *Indian Journal of Medical Ethics* had protested and written to the Supreme Court to get its views against the judgment heard, a request that the court turned down. Thereafter, it made a representation to Justice Ranganath Mishra, the then Chairperson of the National Human Rights Commission, but no change was effected in the judgment!

overnight. It took them years to learn to become inhuman by *adjusting* their ethics to the demands of the Nazis, before eventually participating in the inhuman acts of the state. That is the reason why such *adjustment* of ethics, the slippery slope, must be nipped at the every outset. Medical ethics are internal professional defences to prevent doctors from violating human rights. Those defences have gone down in respect to their participation in narco-analysis (and so also in death penalty).

Are the techniques used for lie detection and narco-analysis scientific? Two aspects of any science are important. One is validity: Is it a scientifically validated method? To what extent does it measure what it claims to measure? And another is reliability: Is it really a reliable method? How consistently can it be reproduced across time, persons involved, and situations?

When I examine the science of a method, it does not mean that I give less importance to human rights and ethical content or to the use of that method. Both scientific and unscientific methods can be used for violating human rights. Because a method is scientific, its use does not automatically become ethical or humane. Good scientific methods and devices have often been used for very bad purposes. But an examination of science is necessary to engage with those medical scientists, who are otherwise neutral, but get swayed by the claim to scientific validity of such methods. Besides, an unscientific method deceives and does not serve even its basic purpose of finding out what it intends to find, and, in the process, punishes the innocent. A review of scientific literature on the use of lie-detection and narco-analysis *for establishing crime* shows there is not enough material to assure us that these are scientifically researched methods.<sup>5</sup> Moreover, not much of the inconclusive literature available on the subject is from scientific journals. Most research on the subject is sponsored or conducted by people in the security, intelligence, police and military agencies. From where the money comes does make a big difference. Who are the people who are actually doing research on this subject? Are they scientists sitting in good hospitals? Are they medical doctors who care for the patients? Most of those involved in using these techniques and conducting *research* on the same are from the forensic laboratories owned and controlled by the home departments or internal security departments of the state. So there is a major conflict of

---

5. In bio-medicine, for making a claim to science, one uses the gold standard of randomised.

interests.

### ***Lie-detection methods***

Lie detection is separate from narco-analysis—the former is not invasive but the latter is, as it introduces drugs in the body system. But, in practice, there is a big connection between the two and they complement each other. The **polygraph** was a very simple method and did not attract much attention and seriousness, simply because it was very easy to pull it down. The polygraph is a lie-detection method in which it is assumed - I am sure many of you know about it - that when you are telling a lie, that is, when your mind is trying to deceive, it has a direct physiological impact. When you are afraid, or there is a fear in your mind, your physiological response changes. Similarly, it is assumed that when a person lies, his physiological response changes—breathing pattern changes, pulse rate changes, the way one sweats changes, and so on. These physiological changes are used in the polygraph method to detect lies. They ask you questions and electrodes attached to your body record changes in your pulse rates, breathing rate, blood pressure and other things. They compare changes or lack of changes when you lie or do not lie. The lying is found out by asking two types of questions. One type is called *control* questions. Control questions are very simple, like what is your name? Is so and so your father? Is so and so your mother? Or they may use a known event about which there is no dispute. Controlled questions are those for which true answers are already known. You know about them, the interrogator knows about them. You are not expected to have any major detectable or recordable physiological change. And, then, there is another type of questions, which are called *relevant* questions. These are questions that are relevant to the investigation of crime or, what they call, specific event investigation. And, if there are changes in the pattern of your physiological responses to such questions, they assume that those changes have a direct association with your psychological state, not just in general, but in particular whether you are lying or telling truth!

Now, is this a scientific proof of whether someone is telling the truth or lying? A lot has been written about the mind-body relationship, and we also know a lot of this from our daily experience. But is there any scientific evidence that the pattern of such association between the psychological state and the physiological response provides us definite information on lying or truth-telling?

There is another device which is similar to the polygraph. It is a hi-tech device called the Computer Voice Test Recorder. It is used a lot in the USA. Here, a voice recorder is attached to a computer having certain specialised programmes and functions—a very expensive computer. Like physiological changes recorded in the polygraph, this device records changes in voice, which is supposed to have a different character when one is lying from when one telling the truth! The sophisticated computer eventually pronounces whether the person was lying in response to the *relevant* questions. I looked up court judgments from the US on the use of this device, and came across cases where the computer had erred, leading to the incarceration of innocents, who later got compensation when they were eventually proved innocent.

### ***Brain mapping and brain finger-printing***

From polygraphs and voice recorders, they went in for more hi-tech and sophisticated instruments. These new techniques of *brain mapping* and *brain finger-printing* are used not only for lie detection but also as the basis for undertaking narco-analysis, and use well-known diagnostic instruments. One such instrument is the Electro Encephalogram (EEG). I am sure everybody must have heard about the Electro-cardiogram (ECG). The ECG is used for the heart, the EEG for the brain. The lids of the EEG machine are attached to the skull. The ECG measures electrical impulses in different parts of heart; the EEG measures electrical impulses in different parts of brain. The EEG is an old technology; now they also have a new one that is called Magnetic Resonance Imaging (MRI). The one that is used for brain mapping is called functional Magnetic Resonance Imaging (fMRI). Such machines are now used on a regular basis in the forensic laboratories in Bangalore, Bombay and Ahmedabad. These are also the places where narco-analysis is carried out.

This method shifts attention from the physiological response of the body to the electrical responses in the brain itself. The assumption is that something beyond the physiological reaction is being measured. Besides, the person is not made to say anything; he or she is only made to hear something and the rest is done by the machine to find out how the brain is responding. They say that the knowledge of what you know about persons, places, events, etc, is stored in your mind. For instance, I know Gautam (Gautam Navlakha of PUDR) and that knowledge is stored in my mind. But here, they do not ask me whether I know him. If asked, I may say the truth or lie. Or I

may prefer to stay silent, saying that to keep silent is my right. But once this method is employed, we no longer have the right to our silence. Technically, one may stay *silent* in the sense that one has said nothing. And yet, the machine attached to my skull provides my interrogators the information whether I know Gautam or not. Let us see how this is done.

What they do is to connect you to the EEG or fMRI. You are told not to say anything. But they just utter, say, Gautam - his name is used as auditory stimulus you can hear. As soon as they say it, you hear it. It goes to your brain. Now, there is something called the P-300 brainwave. According to their theories, this brainwave is not under your volition, under your control. It is like an involuntary reflex. Here the reflex is an electrical activity of brain in response to a stimulus. In a fraction of a second, if you recognise the stimulus, hear the name, Gautam - this brainwave spikes, without you ever consciously knowing about it. This electrical *spark* in specific areas of brain, the P-300 brainwave, is recorded in the fMRI or the EEG machine. And that way, according to them, they can get the full *content* of your brain - not details of what you know, but whether you know about certain specific things that they are interested in finding out. It is like opening the contents page of a book. Brain mapping or finger printing provides the content page of certain specific information. So here they try to find out the boundaries of your knowledge; they map the boundaries. That is perhaps why it is called brain mapping.

In short, they get your specific *content page* without your active participation, without you ever verbally answering any question, without you having any control over what they found out from your brain's electrical activities. Now, whether this interpretation of the P-300 brainwave is scientific or not, and whether it is based on evidence, I have no idea. But it is on this basis that they believe you know something, and then they have to *persuade* you to bring it out of your mind. And it has to be brought out in such a manner that you are unable to exercise any control over what you say. Because, if you are allowed to use your mind to control what you say, then you may lie or filter out what you do not want them to know. So, having seen the contents page of your mind, as they believe, they follow it up with narco-analysis to read the remaining pages. In this they use what is called *truth serum* in order to make you talk minus your capacity to control or filter what you say. So, if my brain mapping tells them



that I know Gautam but I don't come out with any information about Gautam when narco-analysis is done, they are then going to say narco-analysis has failed. You must have read many such reports. For instance, they recently did narco-analysis on Abu Salem and were very disappointed because not enough came out. So they said after few months that they will do it again!

Before I deal more with narco-analysis, it may be useful to discuss what independent scientists have to say about the lie-detection techniques. The lie-detection techniques have gone through scientific reviews, and their conclusions are very important.

### **Scientific review of lie-detection methods**

In the last few years, two major scientific or professional committees evaluated lie-detection techniques. I think the committees were not so motivated by human rights issues per se as by science. The real motivation perhaps lay in the fact that the state and big companies were using these methods to screen people for employment in sensitive jobs. For sensitive jobs, they require employees they can trust. A person applying for a job provides information about himself in the CV and in the interview. The use of lie-detection methods for their screening, according to them, helps them in getting the right person for the job, and in filtering out those who may be lying and, thus, are less trustworthy.

Lie-detection methods are used in a big way for such screening in the USA. It was in this context that the US Department of Energy requested the National Research Council (NRC) for an evaluation of these techniques. The NRC appointed an expert committee that brought out a report in 2003.<sup>6</sup> The second review was done by a Working Party of the British Psychological Society in 2004.<sup>7</sup> Both reports are easily and freely available on the Internet for those interested to read them fully. Both committees concluded that lie-detection techniques were not scientific, or were based on dubious science.

The assumption that there is always a mutual correspondence between psychological and physiological states is wrong. I also feel

6. National Research Council, *Committee to review the scientific evidence on the polygraph*. (Washington DC: National Academies Press, 2003).

7. BPS Working Party, *A review of the current scientific status and fields of application of polygraphic deception detection*. (London: The British Psychological Society, 2004).

the assumption that P-300 brainwave provides accurate information on whether the brain knows something is a highly mechanical understanding with doubtful scientific validity. These committees assessed in detail the scientific validity and reliability of the polygraph, and examined all the available scientific evidence. There are no proven scientific theories for the relationship between the stimuli and the physiological reaction of the body. There can be many causes that can produce the physiological responses that are measured.

For instance, when we are sick and are taken to the hospital, the environment affects us and we experience a physiological response to it. Or, we are taken for a diagnostic test, say, to get an MRI done. The ambience is sometimes a cultural shock and the machine looks intimidating. Our physiological reaction is likely to change. The point is, when a person is taken for lie-detection testing, the environment of the place can have a significant effect on the person's physiological reaction to various stimuli.

Another important issue is the fear of being labelled a *liar*. I am asked a question, I answer it and insist that I am saying the truth. But I know that my interrogators are unlikely to believe me, they are going to believe only the machine! They may say, they found my heart beat changing, or my blood pressure going up, and so with them goes my truth as well. So the fear of being judged a liar itself can create physiological responses that may actually lead to totally erroneous conclusions about the information I give.

If I know, or have heard of, somebody or some event, my physiological reaction is going to be different when that is mentioned. More so, if in my experience, in my mind, something else - something emotional or funny - is associated with the person or event. The name of a person I am emotionally involved with may generate a different physiological response that has no bearing on the investigation. All such things may contribute to a wrong judgment by the investigator.

Thus, in all these techniques, the possibilities of, what we call, the false positives and the false negatives are very high. The **false positives** are those who are telling the truth but are wrongly judged liars. That means, I am not lying but am judged as a liar by a machine that the investigator will believe instead of believing me. (Even if the judgment of the machine, or one derived by the investigator on the basis of data provided by machine, needs corroboration, the person is doomed as a suspect.)

The **false negatives**, on the other hand, are those judgments

where a person is actually lying, but the machine and the investigators judge him or her as telling the truth. This is again simply because the reliability of these machines and the interpretation of their findings are not based on sound science.

The false negatives can also be achieved by what is called **counter-measure**. A person who is very smart can come out of this test with flying colours and prove himself innocent. Can a person take any counter-measure to alter his or her physiological response to stimuli and prove to the interrogator that he or she is actually telling the truth? There are examples in history where a smart person could get away with it. That means one can train oneself to give an unexpected physiological reaction. Once it is known what different physiological responses - rate of breathing, heart beat, blood pressure - are being monitored, all that is needed is the training to ensure that these stay within the accepted limits while lying. On the other hand, if one wants to confuse the investigator, one allows these to change significantly while telling the truth but keeps them within normal limits while lying. There is thus an immense possibility of creating false negatives as well as to misguide the entire process by using counter-measures.

So these counter-measures are very important considerations. There is a very interesting case described in one of these two reports.<sup>8</sup> A person called Floyd “Buzz” Fay, was falsely convicted of murder in the USA. He was actually judged as a criminal and a murderer simply because he failed a lie-detection test. He was sentenced to life. But, after he had spent two-and-a-half years in prison, the police found the real murderer and Fay had to be released. But, when he was in prison on such grave but false charges, he was angry at the lie-detection tests, as I am sure everybody will be in such a situation. It will be the same if I am tortured and made to confess false charges and then made to spend my life in prison. So he started training the inmates of the prison how to beat the lie-detection test and he did it very well. He provided training for duration of 20 minutes to those who had told him that they had committed the crime for which they were supposed to go through the lie-detection test. He gave this training to 27 persons, among whom 23 beat the machines and came out scot-free. So those who have actually committed a crime can come clean by using counter-measures!

Thus, the scientific reliability of these methods is highly

---

8. Ibid., p. 16.

questionable. Since all of them measure something else, one also expects that conclusions drawn from these things that are measured would also be based on sound scientific theories—theories about the way the brain functions and responds to various stimuli. But they are, at best, dubious hypotheses without consistent empirical support, not measuring up to the gold standard of validity. The theories these methods expound in declaring a person guilty or innocent are not seen as definitive science in serious scientific literature anywhere in the world.

### ***Narco-analysis***

Now, let us look at narco-analysis, which is fast replacing lie-detection techniques as the preferred method of making a person say the truth and nothing but the truth. I started with lie detection and brain mapping because the faith in narco-analysis is part of the same mindset that believes there is a technology (or the possibility of one) to recognise truth from a lie or to get to the truth against a person's wishes. It is also one of the latest in a chain of attempted technological fixes, and has the best so-called scientific look to it. So its importance lies in its capacity to seduce scientists into believing that it is scientific and free of the short-comings of the lie-detection techniques mentioned earlier, and, of course, that it is something *less than torture*. That is why it is more important and, of course, so much more dangerous.

From what I have learnt, narco-analysis, as a procedure of using some drug to facilitate the extraction of relevant information from a person's mind, has a history of more than 80 years. But I do not know much about its early history. Currently, the drug used for narco-analysis is called Sodium Pentothal. This is a trade name given by a company, Abbot Laboratories, which discovered it in 1935. Its real name is Thiopental Sodium, which is a thiobarbiturate, a part of the barbiturate group of drugs. But before this became the drug of choice, doctors undertaking narco-analysis for treating patients had several other drugs like sodium amytal, scopolamine and nitrous oxide. Apart from drugs, hypnosis was also used in psychiatry. All these procedures were designed to help patients suffering from certain mental illnesses.

The use of drugs by security agencies happened along with their medical use. For instance, the CIA had done covert experiments with LSD during the cold war in order to use its *mind-altering* properties to its advantage. Many of you may know about the cold war period. It was believed that the Soviet Union knew some method to brainwash

the people. And I remember, in my time, in the 1970s, if a person became Marxist, we were told that person had been *brainwashed*. This term *brainwash* was used very commonly at that time, but at present it is hardly heard, though a different kind of ideology is washing the minds of a large number of people. Back then, it was understood that there was some way of altering the minds of people. The use of LSD by the CIA as part of an undercover, covert research project was completely unethical because the participants did not know that they are being researched, that a drug was being given to them to study its mind-altering properties. One person died in this experiment - unfortunate for the CIA, but fatal for the dead one.

Investigation into the death raised too many questions and it became a scandal. The investigation led to the suspicion that some undercover research was underway. There was a public outcry that led to senate hearings. During these hearings, it was established that the CIA was indeed carrying out such an undercover research. However, these hearings and investigations by the committees appointed for that purpose could not identify individuals from the CIA responsible for such research and the death of the individual because, in 1973, important papers from the records were destroyed on orders from the CIA head. This CIA project is well-known as project MKULTRA, and some of the documents of the senate hearings are available on the Internet.<sup>9</sup> They will tell you something about a different kind of war that was also carried out during the cold war. These senate hearings papers also provide information on another CIA project called ARTCHOKE, using sodium pentothal, which was officially stopped long before the senate hearing on the LSD project, but the papers suggest that it was continued even after the formal announcement of its closure.

In any case, the use of sodium pentothal for mind alteration and getting information found strong support and got more organised after 9/11 in 2001.

**Sodium Pentothal:** Sodium pentothal, which, as I said, was developed in 1935 by the Abbot Laboratories, has another interesting history. It was developed and tested as an anaesthetic agent. You all know that anaesthesia is given during surgeries. Sodium pentothal

is given intravenously and is an ultra-fast-acting anaesthetic. It acts within 45 seconds of being introduced into the bloodstream. Almost 60% of it concentrates in the brain and the person immediately starts losing consciousness. It can also be given for a relatively longer period of time. So the surgery can be commenced immediately, and person can be kept under anaesthesia for the duration of surgery. After one stops giving it, it takes 15 minutes to three hours to wear off, and so the recovery from the anaesthesia is also relatively fast. Thus, it is a very useful drug. After it was developed, they used it as an anaesthetic agent in an emergency situation during the Second World War: the famous Pearl Harbour attack. When it was bombed, the injured persons were given sodium pentothal while being provided surgical care. Several persons died due to the overdose of this anaesthesia. This information was not made available to the public till in 1990s when the freedom of information legislation helped to get it out. The point I am trying to make is that this very useful drug can kill if it is not used judiciously. Its proper use requires the services of a doctor whose sole aim would be to care for the person and not just to extract information by any means.

Sodium pentothal is also famous for its use in other areas like euthanasia. Voluntary euthanasia is where the doctor helps a patient, who is suffering from irreversible, debilitating illness that would surely lead to a slow death, to die. One of the drugs injected in order to hasten death is sodium pentothal. The lethal injection that is used in the USA for executing the death penalty has also been using sodium pentothal.

**Sodium pentothal in narco-analysis:** Now let us understand the assumptions underlying the use of sodium pentothal, an anaesthetic drug, for its intended forensic use in narco-analysis to make a person speak the truth. For that, we first need to understand anaesthesia. There are four different stages of anaesthesia. The first stage is called induction, which is when a person is actually given the anaesthetic substance and its effects start. The second stage of anaesthesia is a phase of excitement and the beginning of the loss of consciousness, when the person is partly conscious or semi-conscious, or is in a trance-like state. As one continues to give the anaesthetic substance, the person goes into the third stage of anaesthesia, which is called the surgical plane, when a person loses sensation and is totally unconscious. It is called the surgical plane because, in order to undertake surgery, the anaesthesia needs to be maintained at this

9. Joint hearing before the Select Committee on Intelligence and the Subcommittee on Health and Scientific Research of the Committee on Human Resources 4, US Senate, 95th Congress, August 3, 1977. [Cited September 21, 2006] Available from: <http://www.hiddenmysteries.com/freebok/mk/toc.html>

stage by maintaining an appropriate dose—level of concentration—of the anaesthetic agent. The loss of consciousness in this stage is reversible. However, if more anaesthetic substance is given than the dose required for achieving and maintaining the surgical plane, then it leads to coma. This fourth stage of anaesthesia is called coma or overdose, and is often irreversible. In the fourth stage, there is depression of the brain stem and medullary regions, and it can lead to death. In Pearl Harbour, the deaths happened because the overdose of the drug in many persons led to the fourth stage of anaesthesia and beyond.

In narco-analysis, a person is kept at the second stage of anaesthesia by maintaining a dose of sodium pentothal sufficient only to produce that stage. The hypothesis is that, at this dose and stage of anaesthesia, the sodium pentothal produces not only an effect similar to hypnosis (trance-like state) but, by its interaction with certain chemicals of the brain, it also makes the person to speak the truth. When I studied medicine in 1970s, we were told that neurologists and neurosurgeons were very good at doing diagnosis, but could do precious little to cure diseases of the brain. Since then, medical science has advanced a lot in its understanding of the brain but, by all accounts, we still have more imperfect empirical understanding and do not have full mastery over the brain's complexities. The empirical efforts have led to hypotheses that are continuously formulated and either discarded or reworked again and again. Many such hypotheses are general—applicable more as averages than in relation to specific individuals. So the hypothesis governing the forensic use of narco-analysis is that the activity of the upper or cortical part of the brain is required in order to filter or alter a person's response to stimuli. Another assumption is that, compared to telling the truth, lying demands more complex processing in the brain in order to decide how to lie and what to say as a lie. And this complex processing takes place in the upper or cortical portion of the brain. Simply put, when one wants to say the truth, it is just there, known to the brain clearly, and so the brain does not need to do much voluntary processing. But, in lying, the brain has to voluntarily make an effort to replace the truth by a lie, and so more complex processing takes place. And the final assumption is that, if the above hypothesis is true, then the expert needs to have only a mechanism or a drug that can stop or reduce the influence of the upper or cortical part of the brain whose role is critical in forming a lie. Once that is achieved, the brain's capacity to lie is altered or controlled by the investigator, and the

hypnotic effect produced by the drug would ensure that the person tells the truth when asked a question. Indeed, information in the brain can be brought out without the normal filtering effect of the brain, provided the assumptions are correct. And, if the assumption is correct, what can such non-filtered information be but the truth?

Now, have the scientists found in the sodium pentothal such a drug and in narco-analysis such a mechanism that can alter the brain in the manner required, for ensuring that the person gives out information not filtered by that particular portion of the brain? And will that information be the truth? They claim that it is so. In the October 2006 issue of the *Indian Journal of Medical Ethics*, I wrote an editorial<sup>10</sup> disputing or rather attacking the *science* of narco-analysis and criticised its practitioners for violation of ethics and human rights. The top-most forensic practitioner of narco-analysis in India responded<sup>11</sup> to the editorial, explaining why he believed in such properties of sodium pentothal and narco-analysis. The sodium pentothal has a property of inhibiting the working of a neurotransmitter inhibitor in the brain called GABA or Gamma Amino Butyric Acid. The assumption is that this neurotransmitter inhibits the way the brain controls the response a person gives, and, by inhibiting this neurotransmitter at a certain depth of anaesthesia, the sodium pentothal removes or reduces the inhibitory powers of the upper or cortical brain.

So, a series of assumptions are made here. That lying is a more complex mechanism of the brain than telling the truth. That lying is mediated through GABA by the brain. Since the sodium pentothal has inhibitory effect on the GABA, the person is less inhibited, becomes more lucid at a certain depth of anaesthesia, i.e. in the second stage, which was always known as the stage when the person getting anaesthesia was in a state of excitement. This is picked up to make an assumption that since GABA is inhibited by this particular anaesthetic agent, the person's capacity to lie is also reduced or removed temporarily. And, above all, the contention is that in such a state, when a well-trained psychologist asks carefully formulated questions, the person's mind will have no option but to tell the truth!

---

10. Jesani, Amar, "Medical professionals and interrogation: Lies about finding the truth", *Indian Journal of Medical Ethics*, vol 3, no 4, October–December 2006, pp. 116–7.

11. Mohan Bannur Muthai, "Misconceptions about narco-analysis", *Indian Journal of Medical Ethics*, vol 4, no 1, January–March 2007, pp. 7–8.

Is there any sound scientific proof for such a series of assumptions? The medical journals are silent on this. On the contrary, there is more evidence, both empirical and otherwise, to argue that full-proof assumptions of such kind are not possible.

As I said earlier, it is known that second stage of anaesthesia produces excitement and the person is not fully unconscious but in a trance-like state. The psychiatrists, who have used this drug, have thus talked of patients being very lucid in narco-analysis and have also talked about narco-hypnosis. Under such assumption, they have for decades used this drug to help victims of trauma, whose minds had suppressed their memories of the trauma, which, however, were causing them psychological problems. Or it is used to help many such patients who have been reluctant to describe their trauma as in doing so they were re-living their painful experience. For example, efforts were made to help many Nazi victims of concentration camps by using this method. After writing that editorial in the medical ethics journal, I interacted with a few psychiatrists to understand their viewpoints. I found some very good support, though many of them have still not written publicly on this issue. I also interacted with a psychiatrist from the armed forces, who said that he had used this drug for narco-analysis to help his patients. He also told me that he discontinued the use of this drug as well as narco-analysis because while the patient gave information in the hypnotic trance induced in the process, he also gave lots of misleading information. His contention, thus, was that the method was not reliable. However, when I sent him my editorial and asked specifically to tell me his position on the use of the same method for interrogation, he said that he had full faith in the security agencies, which must be using it after testing its basis in science. He contended that, in any case, the security of the nation was more important than human rights!

### ***Narco-analysis and hypnotic suggestions***

While I was giving a public lecture in Mumbai on narco-analysis, a person from the audience said that forensic experts planted ideas in the mind of his relative accused of a crime, while he was undergoing narco-analysis. His question was whether it was possible to plant information through suggestion during narco-analysis. I am not a scientist, and least of all an expert on this subject, to give a definitive answer. However, it is known that the trance-like state of hypnosis is created by giving suggestions, and this technique is used in psychoanalysis. A hypnotised person was also considered more prone

to suggestions and so the hypnosis was also used in psychotherapy. So, certain kinds of suggestions produce hypnosis, and in that state the person talks with less inhibition and provides information, while he or she is also more prone to accept suggestions, and so it is used to improve the patient's condition.

I have no scientific evidence, but common sense says that if the sodium pentothal produces a trance-like hypnotic state at second stage of anaesthesia, making a person talk with less inhibition in giving or recollecting information, then perhaps the reverse could also be true. That is, there, in such a trance-like state, a possibility that the person would be less inhibited in accepting suggestions or in filtering out wrong suggestions? Thus, the scientists, who are confidently using sodium pentothal to make a person speak the *truth*, have an obligation to provide evidence that their very assumptions and hypotheses do not work at all in reverse. Unless that is done, there will always be a suspicion that the *truth* found in narco-analysis could also be *manufactured truth*, planted by the interrogators themselves.

### ***Narco-analysis and torture***

As I said earlier, I have rational ground to believe that the science used for employing narco-analysis to find truth from a person's mind is shoddy science or pseudo-science. At the same time, I consider the use of narco-analysis a type of pharmacological torture. So let us examine, from human rights perspective, why narco-analysis is a method of torture.

I am sure all of you know how the United Nations defines torture.<sup>12</sup> The UN definition of torture has four components. The

12. The article 1 of the UN Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment defines torture as: "For the purposes of this Convention, the term "torture" means any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions". The UN Convention against torture was adopted and opened for signature, ratification and accession by General Assembly resolution 39/46 of 10 December 1984, and made entry into force 26 June 1987, in accordance with article 27 (1) 'status of ratifications'

first component says that torture produces physical/mental suffering and is a degrading treatment. The second one says that it is always intentionally inflicted. The third component says that it is inflicted for certain purposes such as getting information, confession, etc. And the fourth component says that it is inflicted by an official actor or an actor acting on behalf of an official.

These are the four major components in the human rights, or the legal, definition of torture. When you look at narco-analysis, you will find that all those four components are really satisfied. It is degrading because it deliberately uses a drug that attempts to alter the state of mind of a person against his/her wishes. It produces mental suffering in an individual, more so if he or she discovers that some of his or her fantasy revealed in the procedure is used to make accusation of real crime. In the present Indian condition it is even more so because the police or forensic laboratory have released video clips of the actual narco-analysis of a person to the media, the same getting played out on the TV repeatedly when the same is not even admissible as evidence in a court of law. Thus, even before a court trial begins, a person is tried in the media, thus inflicting a high level of mental suffering and stigmatisation of the individual by the society.

The rest of the components of the definition are easily satisfied. Indeed, it is deliberately inflicted—so deliberately that it is systematically done in an operation theatre and not in a prison or police lock-up. It is also a method not only to extract information but also to force confessions. And it is always done by police through its forensic laboratory and personnel employed there, along with the doctors in a hospital who are specifically appointed by the police to do the procedure.<sup>13</sup>

We always thought of torture as a gory, blood-soaked and barbaric way of treating a person. So we are often misled into believing that anything, which does not look gory, spill blood or break bones, cannot be barbaric and a form of torture. Torture, in fact, remains torture even if it does not spill blood, break bones and is done in sterile, air-conditioned operation theatres. What is true of the procedure for death

---

13. For detailed arguments on this topic using both the UN international law as well as the US case laws, please refer to Keller Linda, *Is truth serum torture?* Thomas Jefferson School of Law, Research paper series on public law and legal theory; 2004. [Cited 2006 Jan 3]. Available from: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=599143](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=599143)

penalty, which moved from gory and bloody firing squads and the guillotine to electric chair and sterile lethal injects, holds true for torture as well. Narco-analysis produces torture as clearly as the lethal injection produces death.

### ***Doctors, ethics and narco-analysis***

The last point that I want to make in this lecture regarding the relationship of narco-analysis to doctors and their medical ethics. As I said earlier, this is a very dangerous drug. It is used very commonly simply because it is used very carefully by properly trained doctors in the setting of an operation theatre in a hospital. That is why you will find that, although the Bangalore Forensic Laboratory will claim that they did this narco-analysis, it is actually performed not in the forensic laboratory but in an operation theatre of a hospital, mostly in public hospitals controlled by the government. The Godhra accused were narco-analysed not in a laboratory but in the SSG Hospital in Baroda, a public hospital with a medical college.<sup>14</sup> Incidentally, this is also the place where I studied medicine in the 1970s.

That means narco-analysis is a method that cannot be carried out without the assistance of doctors. You have to have an anaesthetist, who is a medical doctor, who should know how to give the drug, in what amount and how to continue giving it in such a manner through the intravenous method, so that the second stage of anaesthesia is maintained throughout the interrogation. This doctor also needs to know how to identify any bad effect that jeopardises person's life so that prompt action can be taken to save his or her life. In this process, the anaesthetist may require the assistance of one or more doctors. And, indeed, as I said many times earlier, this drug is very dangerous, and so the medical skill required is very high. To begin with, the drug needs to be tested in small doses to rule out the possibility of producing shock, or what Gautam (Navlakha) was telling you while introducing the subject, the allergic anaphylactic reaction. This drug can suddenly lower the blood pressure, so constant monitoring of it is a must. It can suddenly cause cessation of respiration or apnea, so the respiration needs to be monitored. It can cause sudden unexplained constriction of the larynx, or a laryngeal spasm. This is a condition where the air passage gets blocked, and if that happens, often one needs immediate emergency surgery to create a hole in the neck for

---

14. See the media report, Bhan, Rohit, "A shot at justice? 'Truth drug' for Godhra accused.", *Indian Express*, June 23, 2002.

allowing the person to breathe. The drug can also cause delirium, nausea and headache.

Indeed, one thing is very clear, and this is not disputed by those using this drug for narco-analysis in interrogation, that one or more doctors directly participate in the interrogation. Thus, one or more doctors are continuously present during the interrogation, and the work these doctors do is nothing but assisting the interrogators. And they not just assist, but are actually responsible for creating the conditions for the interrogation to proceed, continue and conclude as desired by the interrogators. Clearly, doctors are directly involved in this procedure, which I believe, and have explained to you earlier, is nothing but a procedure for pharmacological torture. Not only that, since there is a possibility of a series of life-threatening adverse outcomes, some other doctors, including a surgeon, has to be available on call, at a very short notice. In accepting such responsibility, there is a willingness to participate when needed, expressly stated by some doctors not physically present at the time of interrogation. As the newspaper report on narco-analysis on the Godhra (referred earlier) accused at the hospital in Baroda says, the doctors from the disciplines of anesthesia, surgery and psychiatry were constantly present during the procedure. One more point here. There is also the association of the hospital and its head, who is normally a doctor, with the procedure. This person, the director or dean or chief of the hospital, not only allows but makes all critical facilities of the hospital - physical as well as human resources, which includes doctors and nurses—available to the interrogators to conduct this torture in the name of scientific medical procedure.

What does this mean to human rights and human-rights defenders? All exemplary work that was done by the human-rights activists and all the gains of human rights in relation to medicine that were achieved in 1970s and 1980s are being thrown out of the window. The achievement and gains of human rights were these: the doctor, himself or herself, will not participate in torture, will not remain present anywhere where torture is carried out, and, not only that, if he or she comes to know about such torture as a doctor, he or she will immediately report it.

Such ethical obligations of all health-care professionals were achieved by very fruitful collaboration between human-rights activists and health-care professionals, besides health activists. With the increasing use of narco-analysis with doctors' participation, this is a

very good field for collaboration between human-rights activists and the organisations of ethical health professionals and health activists. They must work and campaign together to ensure that first the doctors and all other health professionals are completely removed from the scene of narco-analysis. As far as health professionals are concerned, they must recognise that they are being forced or persuaded under various pretexts to violate their own professional ethics. Their participation is giving out a message to the society that the medical profession tolerates those members, who are doing medical procedures in violation of wishes of individuals on whom they are carried out. Their real job is to provide medical help to those who need it, to care for them, to heal- none of these things are featured in their work in narco-analysis.

As I said, they are doing it against the person's wishes, that is, violating the ethical principle of informed consent.<sup>15</sup> There is no genuine informed consent most of the time in this procedure. It is often done at the order of courts. As I had said earlier, this is the same as the order of the court to force them to participate in death penalty. Now some courts are saying that even such order is not required, that the decision and power of the police are sufficient. This means the law does not respect medical ethics, or is completely unmindful of it. That also means, now the doctors are doing this procedure even in the absence of court orders, overriding the requirement of informed consent. This is a steep slippery slope for the ethics of the health profession in India if it is allowed to go unchallenged. This is also an important issue even in terms of the history of the medical profession where we find instances of the profession lowering its guard. You all know about the nineteen months of emergency in the 1970s. I am sure you know about it in terms of human-rights violations in that period. I am sure you also know about the forced vasectomy performed on men during that period. But who performed those vasectomies? Doctors did! They willingly participated in the name of a top-priority national programme, they felt an urgency or emergency to sterilise people. Doctors, who have fought tooth and nails against so many government policies—many of them even good—and resorted to strikes and other agitations, willingly did vasectomy without any effort to find out whether the

15. For the argument by an ethical forensic doctor on informed consent in narco-analysis, see: Jagadeesh N., "Narco analysis leads to more questions than answers", *Indian Journal of Medical Ethics*, vol 4, no 1, January–March 2007, p. 9.

persons brought by the police and other government officials were anyway coerced, forced or, for any other reason, were unwilling to undergo the family-planning operation. We all blame the state, Sanjay Gandhi and so on for such policies, but often fail to look at those who willingly implemented those policies in health centres and hospitals. The health professions have not learnt anything from history; they have done no introspection. That is why they continue to cheerfully participate in narco-analysis without any consent, or under coerced consent, of the individual. Such a state of affairs has serious consequences for the morality of health professions and health services in India.

This is a very important issue for associations of various health professions. It is their job to ensure that the health professions confirm to the highest standards and ideals of ethics and human rights. Internationally, some of them are making efforts to do it. The work of British Medical Association on human rights and medical ethics is well-known. The World Medical Association (WMA) of which the Indian Medical Association is a part or member, passed a declaration against torture and on doctors' role in torture way back in 1975. It is called the Tokyo Declaration and is very famous. In response to events that followed 9/11 in 2001, it also revised this declaration recently to ensure that there was absolutely no ambiguity in the prohibition on doctors' participation in torture.<sup>16</sup> Over the last few decades, the WMA has adopted very stringent ethical and human rights codes on other important issues too. The Indian Medical Association is signatory to all such codes and declarations of the world body of doctors. But why is it not doing anything at the national level to stop doctors from participating in torture and death penalty? We all have the responsibility to ask this question to the national associations of health professionals, who try to show their progressiveness by signing such good codes and declarations in international meetings abroad, but do almost nothing to change policies and to regulate their members within the country.

---

16. World Medical Association, "Declaration of Tokyo. Guidelines for Physicians Concerning Torture and other Cruel, Inhuman or Degrading Treatment or Punishment in Relation to Detention and Imprisonment": Adopted by the 29th World Medical Assembly, Tokyo, Japan, October 1975, and editorially revised at the 170th Council Session, Divonne-les-Bains, France, May 2005 and the 173rd Council Session, Divonne-les-Bains, France, May 2006. Accessible at: <http://www.wma.net/e/policy/c18.htm>

To conclude, it is very important for the human-rights movement in India to make efforts to slowly bring various strata of society in its support and to make the apparatus of the state change. During and after the emergency in 1970s, the democratic-rights and human-rights movement emerged as a very significant development. That was the time when many of its activists were over-confident and believed that there will be radical change in the society. No one thought that 21<sup>st</sup> century India would not be a revolutionary power. So now we are living in a different time. There is a very long battle ahead to make the society truly democratic, to humanise it. That will not be possible without a long-term vision and plan for making an impact. It will need a perspective to impact as many strata of the society as possible to bring them in as supporters of human rights. It must have a vision to expand its base. While its activists may still be at the core, they cannot do well without wider support. It will also need to take up issues that can gradually help it to create very supportive public opinion. Only strong public opinion in support of human rights will be able to influence judicial decisions, and so also the decisions and practices of various professions.

Narco-analysis is indeed eroding the very ethical core of the medical profession. It is, of course, a negative development. Yet, at the same time, it is an opportunity for the human-rights movement to reach out to all those doctors who still believe in their ethics, who still continue to practice their medicine in the ethical manner despite all adversities. It is an opportunity to make such doctors allies of the human-rights movement. The helping hand of the human-rights movement will also empower such ethical doctors to isolate those among them, who are violating ethics and human rights; it will help them to persuade such doctors to change their professional conduct. It is in the best interest of the health-care professions, the human-rights movement and the society in general that doctors and nurses are immediately removed—completely and unequivocally—from participation in narco-analysis, from the police interrogations of all kinds, and also from their participation in the death penalty.

***(Transcript of the lecture, edited by the author in January 2008)***



## **Narco - Analysis and Law: A critical look by Rakesh Shukla**

Friends,

Dr Amar Jesani's lecture has been highly informative. We generally hold the Dr Ramnadhram Memorial Meeting on a subject which is allied to democratic rights work and about which one would like to know more. In fact a couple of years back we had held a meeting on Health and Democratic Rights and Dr Binayak Sen, whose release we are now demanding as you see on the banner here, was one of the speakers. Coincidentally, Dr Binayak Sen, like Dr Ramanadhram, is a pediatrician.

For those of us who grew up in sixties and seventies, things like "truth serum" were the stuff of James Bond, Cold War, CIA and KGB. It could not have been imagined that things would come to such a pass that the administration of sodium pentathol and admissibility of narco-analysis would have to be dealt with in the arena of law as a serious issue. About a hundred years back hypnosis was abandoned even by psychoanalysts and today we find that inducing a trance-like state through drugs or hypnosis is being looked upon as a scientific method and there is a debate as to whether the information extracted should be admissible in courts. The way things are going we may soon find courts upholding "free association" which occurs in psychoanalysis as evidence of crimes! Free association itself is a mixture of fact and fantasy and a far cry from evidence. Today, narco - analysis – the induction of a trance-like state through the use of drugs is not only being used as an investigative method but has also been upheld by a number of courts as valid and legal.

The use of medicines and doctors for narco-analysis in the context of the purpose of the medical profession being "caring" reminds us that the purpose of the legal system is the reduction of crime. The blatant violation of the right against self-incrimination, which also comes into play in narcoanalysis, has played a big role in working directly against reduction in crime. This is to do with the manner in which investigation is done in India. The police find it easiest to extract a confession through the use of third-degree methods from the most vulnerable individual in the circumstances. For example, in a case of theft – a confession from the domestic servant. Once a confession is extracted from a person, the search to find out the real perpetrator is not undertaken. Generally, the confession is retracted in front of the

magistrate and since there is little evidence beyond it, the result is an acquittal.

This manner of investigation further aggravates the problem; however, independent of it the use of narco - analysis impinges on the right to life and liberty under Article 21 and the right to not to be a witness against oneself under Article 23 of the Constitution. The remedy in law for being illegally detained and for the enforcement of the right to life is the writ of habeas corpus – which literally means producing the body of the person. The right to life is intrinsically connected to the inviolability of the body. Even when a doctor has to perform a procedure which involves introducing a chemical in your body as in anesthesia, or cutting open the body to perform an operation to cure, the consent of the patient is required. Thus we find that even in procedures performed for the welfare of a patient, consent of the individual is required for any invasion of the body. The introduction of sodium pentothal in the body of a person without his/ her consent for narco-analysis violates not just the right against self-incrimination but the right to life itself.

Introduction of drugs like sodium pentothal in the body results in taking away control of the mind of the concerned individual. It is the coercive inducing of a trance-like state after which questions are asked of the subject. It is a violation of the body and the mind and akin to physical torture and extraction of confession. In fact, in physical torture, control of the mind is retained while narco-analysis results in loss of control and takes away any semblance of conscious 'volition'. However, looking to decisions of courts we find that judgments increasingly seem based on little more than drawing room opinions rather than judicious adjudication in the light of fundamental rights and principles of criminal jurisprudence.

The administration of drugs in the body and subsequent narco-analysis without the consent of the individual has been upheld by in three cases by two high courts. The Madras High Court in the case of Dinesh Dalmia in 2006 has held narco-analysis is not testimony by compulsion. The reasoning offered by the court is that the accused person "may be taken to the laboratory for such tests against his will, but the revelation during tests is voluntary". This is specious, bordering on an absurd Catch-22 sort of reasoning: the court orders narco-analysis, the person is taken without consent to the laboratory. In the laboratory pursuant to the judicial order drugs are introduced without consent in the body. These drugs take away control of the

mind. Thereafter, the revelations during narco-analysis are pronounced as voluntary by the court. It seems to be very much — like “a person is compelled to testify voluntarily” — a contradiction in terms. If we take this reasoning to the sphere of the use of third-degree methods, it is like inflicting physical torture on a person till he/ she breaks down and then terming the revelations as “voluntary confession”.

The second case is of Abdul Karim Telgi where the Bombay High Court says that certain physical tests involving minimal bodily harm like narco-analysis and brain mapping do not violate the fundamental right against self-recrimination embodied in Article 23 of the Constitution. Courts, specially the higher judiciary, do not just decide individual cases but their judgements enunciate principles of law applicable in general. In the Telgi case, the principle being laid down appears to be that methods which inflict minimal bodily harm are permissible. Again if we take this principle to the realm of use of third-degree methods it might assist us in looking at the implications. In constitutional and criminal jurisprudence the use of torture has unequivocally been looked upon as illegal and violative of the fundamental right to life and the right of the accused against self-incrimination. In the context of physical torture the interpretation of ‘minimal body harm’ to extract information is unclear. The present categories in law are ‘simple hurt’ and ‘grievous hurt’. Or in terms of disability — causing temporary or permanent disability. Applying the enunciated principle of minimal bodily harm – is it that causing simple injury or causing a temporary disability to extract information in the course of investigation would be permissible? Would depriving a person of sleep for long time periods in order to get a confession be okay in the eyes of law? Enunciation of such a principle is a hazardous departure from the present consensus with respect to the illegality of third-degree methods as a tool of investigation and collection of evidence. In the third case, the judgement declares that the tests of brain mapping and lie detection are actually not the statements of the accused and therefore the right against being compelled to be a witness against oneself does not come into play. As per the reasoning a procedure showing the map of the brain of a person cannot be said to be the statement of the accused person. In a further twist, it observes that the statement has to be incriminatory and unless the information is there it cannot be said that it is incriminatory, and therefore the protection against self-incrimination is not available in

case of these kind of procedures.

Presently the judgement of the Supreme Court pronouncing on the constitutionality of narco-analysis is awaited. In the Tushi Cooperative Bank case, K Venketshwara Rao refused to sign his consent form and to the credit to the medical profession, the forensic science lab at Gandhinagar declined to conduct the test without his consent. However, the magistrate ordered the test of Rao to be done, which was subsequently stayed by the apex court. It is difficult to anticipate the decision of the Supreme Court; however, one can take a look at some of the past decisions with regard to the right of self-incrimination as possible pointers.

One of the first cases was in 1953 and pertained to the issue of voluntary confession in the context of the constitutional right against self-incrimination. The judgement did not declare voluntary confession as repugnant to the Constitution with the caveat that the confession should be without threats, force and coercion. Then in 1954, the question of the constitutionality of the provisions for search and seizure in the Criminal Procedure Code (CrPC) came up before the court. Under the CrPC, the magistrate can order search and seizure of the house of the accused. These provisions were upheld as valid and the judgment declared that search and seizure were part of the overriding power of the state for protection of societal security and are regulated by law. This question again came up in 1980. The apex court again held that the search of premises occupied by the accused without the accused being compelled to be a party to the search is not violative of Article 23. In reality, in almost each and every case, once an accused is remanded to police custody, invariably the police take the person to the house for search and seizure. The caveat which seems to be a basis for holding the provisions of search and seizure valid – that the ‘accused is not to be compelled to be a party to the search’ – seems to have little relevance in practice. The accused is offered little choice in the matter and taken to various places for search and seizure operations to collect incriminating evidence.

In the ‘case of the concealed microphone’, a microphone was concealed and the accused person did not know that the whole thing was being taped. However the court held secretly taping the statements of the accused did not amount to a violation of the right against self-incrimination because the conversation was voluntary. The issue of the validity of getting thumb impressions, foot prints, palm prints,

specimen writings of the accused and the holding of identification parades came up before an eleven-judge Constitution Bench of the Supreme Court. The judgement first poses the question whether the taking of fingerprints, specimen writings and so on of the accused constitutes furnishing evidence and answers it in the affirmative and says, 'yes, he is furnishing evidence'. The judgement then observes that Article 23 provides that the accused shall not be compelled to give 'witness against himself' and declares that though the accused is furnishing evidence but the evidence is not against himself. On this strange logic, the Court declared all these procedures to be not violative of the fundamental right against self-incrimination and constitutionally valid.

There is an Andhra Pradesh High Court judgment that perhaps needs mention in the context of changes in law impacting basic principles of criminal jurisprudence. This also has a bearing for all of us in the broad stream of progressive movements for democratic rights. The judgment pertains to the constitutionality of Section 113 A of the Evidence Act. The provision relates to the suicide by a woman within seven years of marriage and creates a presumption of the husband and relatives being abettors of suicide. The provision was upheld by the high court on the ground of societal interests. In the context of custodial deaths a number of us have been demanding the introduction of a provision creating a presumption of guilt against the policemen. Section 113 A of the Evidence Act creating a presumption came in the context of dealing with the question of violence within the marital home. However, the implications of changes in the fundamentals of criminal jurisprudence are at times diverse and long term.

The right against self-incrimination is based on the presumption of innocence and the burden of proof being on the prosecution to establish the commission of an offence by the accused. A provision creating a 'presumption of guilt' may get introduced in the context of marital violence or custodial death but then provides a justification and finds a way into other laws like the Terrorist and Disruptive Activities (Prevention) Act (TADA) and Prevention of Terrorism Act (POTA) which are violative of democratic rights. The use of invasive methods like narco-analysis, brain-mapping and lie-detector test may have even deeper implications in the context of the reality of the manner of police investigations.

Once TADA or POTA came as laws, the police found it more

convenient to charge people under these laws. Anyone found with arms in a 'designated area', an offence that would generally fall under the Arms Act, would end up being charged under the more stringent TADA. Making confessions admissible as evidence resulted in shoddier investigations as the police found it easier, and TADA and POTA came to be used more and more. A procedure like narco-analysis may arrive with Telgi of the fake stamp paper scam but insidiously spreads impacting democratic space. All preventive detention laws like Maintenance of Internal Security Act (MISA) and National Security Act (NSA) were initially introduced to be used against smugglers and hoarders and were extensively used against political opposition. The increasing use of narco-analysis, including against political activists, seems to indicate the likely direction of things to come. It is probable that the police may find it more convenient to go in for narco-analysis rather than scientific investigation. Though there also seems some move to make it admissible as evidence, however, even if it remains inadmissible, the police can always introduce revolvers, knives, explosives supposedly recovered pursuant to revelations in narco-analysis as evidence. As a number of us know, the police is never short of un-accounted weapons and is not hesitant to plant and show them as recovered from accused persons. The ramblings of a drug induced trance leave a lot of potential to introduce almost anything as recovered pursuant to narco-analysis of the accused individual.

Even the CIA concluded that the outpourings after the introduction of drugs like sodium pentothal may comprise hallucinations, illusions, delusions and psychotic manifestations. In fact, in a 1977 Senate hearing, the CIA declared that there is no such magic as a truth serum. That the notion of truth serum exists in popular imagination but has no basis in reality. It is ironic that the methods which were abandoned even by the CIA long back are now finding favour with our courts. As happened in Telgi's case, it is the courts that are ordering narco-analysis and brain-mapping.

There are two aspects to narco-analysis - reliability and legality. The medical part covered by Dr Jesani addresses the issue of reliability. Legality of the method from the rights perspective is a vital aspect; however, its reliability or unreliability also has implications in law. A drug-induced mind may be particularly vulnerable to thoughts, feelings and suggestions by the interrogator. An accused under narco-analysis may at a stage find it difficult to

distinguish his/her own thoughts from those of the interrogator. An accused A may deny that he killed B. However, after introduction of a drug like sodium pentothal, repeated and sustained suggestions that he took a revolver, entered the house and killed B may blur the distinction between reality and fantasy and A may 'confess' to the murder. This is a major hazard of the method in the context of criminal trials and may lead to grave miscarriages of justice.

To conclude, the use of narco-analysis as an investigative tool or as evidence is violative of the right to life, liberty and the right against self-incrimination. Viewed from the point of view of criminal trials, the unreliability of the procedure and the impact of the drugs on the psyche may result in miscarriage of justice and conviction of innocent persons. The logic of 'minimal bodily harm' being permissible for extraction of information offered for upholding narco-analysis has grave implications as to the use of coercive third-degree methods specially in the context of growing curbs on rights in the name of tackling terrorism. The democratic rights movement must take up a sustained campaign against the use of invasive methods like narco-analysis and brain-mapping.

---

---

**Published by:** Secretary, Peoples Union for Democratic Rights, Delhi  
**For Copies:** Dr. Moushumi Basu, A- 6/1 Aditi Apartments, Pocket  
D, Janak Puri, New Delhi 58  
**Email:** pudrdelhi@yahoo.com  
**Website:** www.pudr.org  
**Suggested Contribution:** Rs. 10