



The Indian Journal for Research in Law and Management

Open Access Law Journal – Copyright © 2026

Editor-in-Chief – Dr. Muktai Deb Chavan; Publisher – Alden Vas; ISSN: 2583-9896

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Re-evaluating Selvi v. State of Karnataka in the Era of AI Driven Polygraphs - A constitutional Inquiry.

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INTRODUCTION

AI and Constitutional Protections is perhaps the most important area of law for the 21st century. In case of India, law enforcement is beginning to use AI systems designed to recognize micromovements of facial expressions, eye twitches and stress indicators in voice, all through the use of cameras and other non-contact systems. Such systems are perhaps one of the most serious attacks on the legal precedent set in the case *Selvi v. State of Karnataka*¹. The goal of this article is to show the state uses such systems to view them purely as a tool to observe. In reality, they are a type of insidious and covert 'algorithmic third degree', violating the structure and balance provided by Articles 20 and 21 of the Indian Constitution, such as the right to mental privacy, the right to cognitive freedom, and the right to not testify against oneself. The structure of this article consists of (i) focusing on Selvi's structure; (ii) analysing the shift in systems; (iii) evaluating AI based polygraph systems; (iv) focusing on systems of law in different jurisdictions; (v) focusing on systems of law in different jurisdictions; and (vi) focusing on the systems and law of the state of AI.

THE FOCUS: SELVI V. STATE OF KARNATAKA (2010)

The Supreme Court's unanimous opinion in the case of *Selvi* clearly stated that the use of narco-analysis, polygraph, and Brain Electrical Activity Profiling (BEAP) test in a non-voluntary manner is a violation of fundamental rights. The reason behind the decision is based on three fundamental rights.

¹ *Selvi v. State of Karnataka*, (2010) 7 SCC 263.

Article 20(3)—Testimonial Compulsion: The Court adopted a broad interpretation of 'testimonial compulsion' to mean more than just verbal admissions. It includes any method of extracting knowledge, including thoughts, from the accused, or even unconscious neurological responses. Referring to *State of Bombay v. Kathi Kalu Oghad*², the Court outlined a distinction, under Article 20(3)³, between evidence of a physical nature (e.g. fingerprints, DNA) and evidence of a mental or testimonial nature. The former is outside the realm of constitution protection, while the latter is protected.

Article 21⁴—Mental Privacy is an Unqualified Sanctuary: The Court assured an inviolable 'mental privacy' sphere, and ruled that forced mental encroachment, regardless of the medium, constitutes a treatment that is degrading to the dignity of a person.

Substantive Due Process⁵: The Court ruled that coercive and psychologically manipulative practices in detention, regardless of the scientific claims of their purport, were to be regarded as inhuman and cruel.

THE CATALYST: THE AI-POWERED POLYGRAPH TECHNOLOGY

Traditional polygraphs, which relied upon galvanic skin response, blood pressure and respiratory rate, were basic, operator-dependent, and constitutionally legible. In contrast, the modern, AI-based systems, which include Eye Detect, algorithms for micro-expressions, and neural classifiers combined with EEG, are of a categorical different nature. Because they are deployed via frictionless, non-contact systems, cameras, and machine learning, they are able to capture involuntary physiological responses. We can hypothesize what the argument from the police will be, which is that because the technology is frictionless, it is just as passive as observing the suspect's body during an interview, and therefore it falls outside of what Selvi ruled as physical coercive interrogation techniques. This argument is therefore, in our opinion, constitutionally illusory.

CONSTITUTIONAL INQUIRY : THE ALGORITHMIC THIRD DEGREE

A. Mutation of 'Testimonial Compulsion' [Article 20(3)]

The argument regarding the state's "mere observation" fails with proper analysis. Selvi's definition of testimonial compulsion involves what is extracted, as opposed to the method. An

² *State of Bombay v. Kathi Kalu Oghad*, AIR 1961 SC 1808.

³ INDIA CONST. art. 20, cl. 3.

⁴ INDIA CONST. art. 21.

⁵ INDIA CONST. art. 21.

AI system, upon interpreting involuntary micro-muscle, neurological, and involuntary responses to classify the state of the subject to be either truthful or deceptive, is removing the subject's thoughts, which is the precise mischief which Article 20(3) seeks to address. Even more troubling is the fact a completely silent accused is still no match for the AI: the coding is designed to make the body speak involuntarily on behalf of the accused's thought. The Body vs. The Mind weaponisation is a severe affront to the right to silence, and renders the right to silence as law in book only. The Selvi case must be extended to cover any technology which, however, touchless, compels the accused to make cognitive processes that are otherwise internal and personal, to provide information that is self-incriminating.

B. Breach of Mental Privacy and Cognitive Liberty [Article 21]

Selvi's case, in the initial stages of the case, provided a constitutional framework to establish the right to mental privacy, which has now progressed with *K.S. Puttaswamy v. Union of India*⁶. Puttaswamy's case regards the right to digital privacy and the right to control one's body, as part of Article 21, of the Constitution of India, and, therefore, AI-powered polygraph systems must be examined under the strict four-fold test of proportionality:

- (i) **Legality:** In India, no law exists to support the use of AI-based polygraphing and interrogation systems. In the absence of a law enacted by Parliament, the use of such systems is constitutionally invalid by default, and such a position is supported by the EU's AI Act, which also emphasizes the need to have a law in place to regulate such systems.
- (ii) **Legitimate Aim:** Although the right to public safety is a recognized and valid aim, it may not be a valid justification for infringing upon fundamental rights.
- (iii) **Rational Nexus/Suitability:** There is a serious dispute over the scientific validity of AI deception detection. Studies show error rates of over 25% and there are demographic biases. Algorithms that have been trained predominantly on Western datasets misread South Asian or East Asian micro-expressions. The "Black Box" opaqueness of proprietary models makes independent audit impossible and undermines any claim of evidentiary reliability.
- (iv) **Proportionality Stricto Sensu:** The conventional investigative tools of electronic surveillance (with a judicial warrant), forensic accounting and examination of witnesses are less constitutionally intrusive alternatives. If there are less-restrictive

⁶ *K.S. Puttaswamy v. Union of India*, (2017) 10 SCC 1.

alternatives, the more intrusive alternative fails the proportionality test prescribed by Puttaswamy. The right to cognitive liberty, that is the right to mental self-determination, is the most important of all rights.

C. The Illusion of Informed Consent

Selvi allows the tests that are AI-driven only if voluntary and informed consent exists. Informed consent does not occur with AI polygraphs. Informed consent assumes that the individual understands how their data will be used. Because proprietary AI are trade secrets, their algorithms and the logic of their decisions are completely inaccessible to the accused, their lawyers and the courts. Consent under the conditions of ignorance of how the algorithms function is not informed consent. In fact, it has no effect in law. Consent obtained while in a custodial setting is coercive in nature. The accused knows that if they do not cooperate with the AI, the courts will infer that this is to the detriment of the accused. Informed consent does not exist in AI polygraphs and therefore no consent to waive constitutional rights can be assumed.

D. Statutory Friction: The DPDP Act

Biometric and physiological data collected by AI polygraphs certainly qualify as sensitive personal data under the Digital Personal Data Protection Act, 2023. Section 17⁷ provides broad exemptions to the processing of personal data for the purpose of criminal investigation. These exemptions are constitutionally dangerous as they dilute the spirit of the provisions. As stated in the Puttaswamy judgment, any infringement of the privacy right (including the right of an individual to have control over the processing of their biometric data) must stand the test of constitutionality on its own. It is not possible to interpret the DPDP Act in a manner that the lack of AI polygraphs is a way to create a loophole for Articles 20(3) and 21 of the Constitution.

COMPARATIVE JURISPRUDENCE: THE GLOBAL CONTRAST

The European Union Artificial Intelligence Act 2024⁸ classifies AI-driven systems for the recognition of emotion and lie detection in the context of law enforcement as "the most

⁷ The Digital Personal Data Protection Act, 2023, § 17, No. 22, Acts of Parliament, 2023 (India).

⁸ Regulation 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act), 2024 O.J. (L 1689).

advanced" of the "most regulated" systems and recommends a complete ban if mechanisms are not in place to preserve fundamental rights. There is an emerging consensus that the use of algorithms for deception detection is contrary to the spirit of the Constitution. The Indian Courts, as part of a Constitutional system having a larger liberality with respect to the interpretation of rights, must revise Selvi, in light of the modern technological systems most comparably with the International Courts, to act in a similar manner.

CONCLUSION: GUARDING THE CONSTITUTIONAL MATRIX

The analysis presented shows that, despite being touchless and algorithmically based, AI-driven polygraphs can be defined as the “Algorithmic Third-Degree” in this commentary. Similar to earlier forms of the Third-Degree, they extract cognitive data in a systematic and coercive manner. The process, similar to the coercive neurotechnology tests, is invisible, and constitutionally speaking, is indistinguishable from the coercive tests mentioned in Selvi. They employ coercive physiological means and violate Article 20(3), Article 21’s protection of mental privacy and cognitive freedom, and the right of informed consent. They also operate within a regulatory void and a complete lack of statutory law. If the Selvi constitutional matrix is not continuously updated and protected in a dynamic and aggressive manner, the brutal police methods of the physical realm will be converted to police methods of a coercive psychological type, made invisible and algorithmic. This will kill the right to silence, and make cognitive freedom a thing of the past. The Selvi constitutional matrix must be extended, and the courts can make this extension through the interpretation of Selvi, or they can create a legislative incentive to extend protections based on rights.