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THE FIRST AMENDMENT AND THE "RIGHT TO MENTAL PRIVACY": CONSTITUTIONAL PROTECTIONS FOR NEURAL DATA UNDER THE INDIAN CONSTITUTION

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ABSTRACT

The rapid commercialization of brain-computer interface technologies has created an urgent constitutional dilemma, does the Indian Constitution protect the privacy of our thoughts. This article argues that Article 21 of the Constitution, read in conjunction with Article 19(1)(a), implies a robust right to mental privacy—the freedom from warrantless governmental and commercial access to neural data. Drawing on the Supreme Court's jurisprudence on privacy, dignity, and self-incrimination, this article contends that neural data deserves heightened constitutional protection as the "forum internum" of human consciousness. Part I examines the technological landscape of neurotechnology in India. Part II traces the doctrinal foundations of mental privacy in Indian constitutional law, from Kharak Singh to Puttaswamy. Part III analyzes the Selvi v. State of Karnataka judgment as the foundational case for mental privacy. Part IV examines the inadequacy of the Digital Personal Data Protection Act, 2023 in protecting neural data. Part V proposes a constitutional framework for assessing governmental and commercial access to neural data. The article concludes that India's constitutional framework must evolve to protect the last private frontier the human mind and recommends both judicial recognition and legislative codification of neurorights.

Keywords: Mental Privacy, Article 21, Neurotechnology, Puttaswamy Judgment, Selvi v. State of Karnataka, Cognitive Liberty, Data Protection

I. INTRODUCTION

"The freedom of thought is the first liberty that the Preamble to the Constitution of India aims to secure."[1] Yet, as O'Callaghan and Shiner[1883] observe, "one finds no mention of 'thought' as one of the protected freedoms under Part III of the Constitution, which safeguards fundamental rights." This apparent paradox that India's constitutional architecture places liberty of thought at its philosophical foundation while offering no explicit textual protection has become urgently relevant in an age where technology threatens to penetrate the last bastion of human privacy: the mind itself.[1884]

The human mind has long been considered an inviolable sanctuary. Justice Bobde, in his concurring opinion in the Right to Privacy case[1885], defined privacy as "the right to choose and to specify backed by cognitive freedom or the assurance of a zone of internal freedom in which to think."[3] This vision of cognitive sanctuary now faces its most profound challenge: the emergence of brain-computer interface technologies capable of decoding

[1883] Patrick O'Callaghan and Bethany Shiner, 'The Right to Freedom of Thought in India' in The Cambridge Handbook of the Right to Freedom of Thought (Cambridge University Press 2025)

[1884] Ibid

[1885] Justice K.S. Puttaswamy (Retd.) v. Union of India (2017) 10 SCC 1, 345

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neural activity into readable data about mental states, emotions, and even thoughts.

In January 2024, Elon Musk's Neuralink achieved a groundbreaking milestone by successfully implanting its first brain chip in a human subject.[1886] This development, while revolutionary, has brought to the forefront complex legal and ethical questions that existing legal frameworks worldwide, including India's, are ill-equipped to address. The ability to record, interpret, and potentially manipulate brain activity raises fundamental concerns about mental privacy, cognitive liberty, and the very essence of human autonomy.[1887]

India now confronts a profound constitutional question: does the Constitution of India protect the privacy of our neural data? This article advances a novel thesis: that Article 21[1888], read in conjunction with Article 19(1)(a)[1889] and guided by the Preamble's commitment to liberty of thought, implies a robust right to mental privacy the right not to have one's thoughts externally accessed without consent. This right finds its strongest foundation in the Supreme Court's recognition of privacy as intrinsic to dignity and autonomy in the Puttaswamy case[1890].

II. THE TECHNOLOGICAL LANDSCAPE: NEUROTECHNOLOGY AND ITS CONSTITUTIONAL IMPLICATIONS FOR INDIA

A. Brain-Computer Interfaces and the Spectrum of Neural Data

Brain-computer interfaces represent a transformative leap in human-technological integration. Modern neurotechnology encompasses monitoring devices that record brain activity, stimulation devices that influence neural processes, and bidirectional systems that both record and stimulate.[1891] The potential applications range from treating neurological disorders like Parkinson's disease and epilepsy to enhancing cognitive abilities in healthy individuals.[1892]

However, these remarkable capabilities come with significant risks. BCIs capable of reading brainwave patterns could potentially decode thoughts, emotions, and intentions with increasing accuracy. Neural data can be captured at very different levels of fidelity and intrusiveness. Non-invasive electroencephalography headsets sample scalp potentials. Functional near-infrared spectroscopy measures localized hemodynamic changes that correlate with neural activity. Implanted microelectrode arrays record high-resolution activity from the brain itself.[1893]

These signals differ from typical behavioral data because they can reveal mental states that people reasonably expect to keep private, including emotional reactions, intentions in formation, and, in tightly controlled research settings, aspects of perceived or intended speech.[1894] As the Vidhi Centre for Legal Policy notes, "That intimacy, and the risk of irreversible harm if such data is misused, justifies a tailored legal response."[1895]

B. The Indian Neurotechnology Market and Commercial Risks

The commercial neurotechnology market in India is growing rapidly. Startups like BrainSightAI are developing advanced neuroimaging solutions, and multinational companies are introducing consumer headsets for meditation, gaming, and personal research. Devices like Muse, Emotiv, and Neurosky are increasingly accessible to Indian consumers, marketed as wellness and productivity tools.[1896]

Yet there exists no specific legislation regulating the collection, storage, or use of neural data.

[1886] 'Elon Musk's Neuralink Implants Brain Chip in First Human', Reuters (30 January 2024).
[1887] Kamal Kumar, 'The Dawn of Neurotechnology and its Legal Challenges' *SCC Online* (17 October 2025).
[1888] Article 21, The Constitution of India, 1950
[1889] Article 19(1)(a), The Constitution of India, 1950
[1890] Supra note 3
[1891] Ibid
[1892] Ibid
[1893] Susmit Mukherjee, 'Securing Neuro-Privacy: An Argument for Recognition and Practical Regulation' , Vidhi Centre for Legal Policy (September 2025).
[1894] Ibid
[1895] Ibid
[1896] Neurorights Foundation, 'Neurotechnology Data Privacy Report' (2024).

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The Neurorights Foundation's 2024 report[1897] examined thirty consumer-facing BCI companies globally and discovered alarming data practices: twenty-nine of thirty companies could collect user data with "no meaningful limitations," only half allowed consumers to revoke consent for data processing, and merely fourteen permitted users to delete their data.

The risks are not merely theoretical. Continuous neural streams are rich, high-dimensional signals. Machine-learning models trained on them can infer cognitive workload and affect and, in experimental settings, reconstruct elements of perceived or intended speech.[1898] Once such inferences become feasible outside the lab, they can be repurposed for targeted advertising, workplace monitoring, behavioral profiling, or automated decisions that affect access to services.[1899]

C. The Clinical-Consumer Regulatory Divide

India currently maintains a regulatory fault line between clinical devices and consumer neurotechnology. Clinical neurodevices fall under the medical device regime, with the Central Drugs Standard Control Organization empowered to enforce safety and performance standards under the Medical Devices Rules, 2017.[1900]That perimeter captures high-risk implants, clinical trials, and post-market surveillance.

Consumer brain-computer interfaces, however, are marketed as wellness, entertainment, or productivity tools. They often sit outside medical device oversight while still collecting and transmitting neural signals. The result is a split system: implants face stringent safety review while mass-market wearables can reach millions with minimal pre-market scrutiny of their privacy design, data retention, and cross-platform sharing practices.[1901]

III. DOCTRINAL FOUNDATIONS: THE CONSTITUTIONAL BASIS FOR MENTAL PRIVACY IN INDIA

A. The Preamble: Liberty of Thought as Foundational Values:

The Preamble to the Constitution of India begins by securing to all citizens "liberty of thought, expression, belief, faith and worship." As O'Callaghan and Shiner[1902] observe, "the Preambular ideal itself is insufficient to confer a substantive right, but its role in judicial interpretation, along with the interrelationship between fundamental rights, provides a robust normative foundation for the right to freedom of thought in India."[1903]

The placement of liberty of thought at the very outset of the constitutional document signals its foundational importance. Justice Bobde's formulation in the Privacy judgment that privacy encompasses "cognitive freedom or the assurance of a zone of internal freedom in which to think"[22] draws directly on this Preambular commitment.[1904]

B. The Pre-Puttaswamy Jurisprudence:

The Supreme Court's privacy jurisprudence began with State of Uttar Pradesh v. Kharak Singh[1905]where the Court considered the constitutionality of police surveillance through domiciliary visits. While the majority declined to recognize a general right to privacy, Justice Subba Rao's dissent presaged future developments. He argued that "the concept of liberty in Article 21 was comprehensive enough to include privacy and that a person's house was his castle."[1906]

Govind v. State of Madhya Pradesh[1907] marked a significant evolution. The Court recognized that "privacy-dignity" claims deserve constitutional protection, though it stopped short of declaring privacy a fundamental right. Justice Mathew

[1897] Neurorights Foundation's 2024 report
[1898] Supra note 8
[1899] Ibid
[1900] Medical Devices Rules, 2017, Ministry of Health and Family Welfare.
[1901] Supra note 8

[1902] Supra note 1
[1903] Supra note 2
[1904] Supra note 2
[1905] State of Uttar Pradesh v. Kharak Singh [1964] 1 SCR 332.
[1906] Ibid
[1907] Govind v. State of Madhya Pradesh, 1975,AIR 1378

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observed that "there is a zone of privacy in which an individual can do what he likes.

C. Foundational Case study for Mental Privacy

Selvi v. State of Karnataka [1908] represents the Supreme Court's most explicit engagement with mental privacy. The case addressed the constitutionality of involuntary administration of neuroscientific tests narcoanalysis, polygraph examination, and Brain Electrical Activation Profile on accused individuals, suspects, and witnesses.

The Court held that involuntary administration of these tests violated Article 20(3)'s protection against self-incrimination and Article 21[1909] guarantee of personal liberty. Chief Justice Balakrishnan observed that "forcing an individual to undergo such tests is tantamount to compelled testimonial acts, thereby breaching the right against self-incrimination."

Crucially, the Court recognized that these techniques implicate mental privacy. The judgment stated: "We are also of the view that subjecting a person to the impugned techniques in an involuntary manner violates the prescribed boundaries of privacy. Forcible interference with a person's mental processes is not provided for under any statute and it most certainly comes into conflict with the right against self-incrimination."

The Court further emphasized that "the compulsory administration of the impugned tests constitutes 'mental torture' and is likely to result in 'cruel, inhuman or degrading treatment'."[30] This recognition that mental privacy is intrinsic to human dignity and freedom from torture provides a powerful foundation for extending protection to all forms of neural data collection.

D. Puttaswamy: Privacy as a Fundamental Right

The Putta swamy judgement[1910] represents the watershed moment in Indian privacy jurisprudence. A nine-judge Bench unanimously held that privacy is a fundamental right under the Constitution, intrinsic to dignity and autonomy.

Justice Chandrachud's majority opinion explicitly recognized that "privacy entitles the individual to freedom of thought, the freedom to believe in what is right, and the freedom of self-determination." He further observed: "The silence, which lies within, reflects on the ability to choose how to convey thoughts and ideas or interact with others. These are crucial aspects of personhood."

The judgment identified three facets of privacy: bodily and mental privacy; informational self-determination; and decisional autonomy. Regarding mental privacy specifically, Justice Chandrachud noted that "liberty enables the individual to have a choice of preferences on various facets of life including what and how one will eat, the way one will dress, the faith one will espouse and a myriad other matters on which autonomy and self-determination require a choice to be made within the privacy of the mind."

The Court also emphasized that informational privacy the right to control the collection and dissemination of personal information is a protected aspect of privacy. As the plurality opinion noted, "informational privacy is a facet of the right to privacy." This becomes directly relevant to neural data, which represents the most intimate category of personal information.

E. Freedom of Speech and Expression under the Indian Constitution

Article 19(1)(a)[1911] guarantees the right to freedom of speech and expression. The Supreme Court has consistently given this provision an expansive interpretation. In Maneka Gandhi v. Union of India, the Court held that freedom of speech includes the right to remain silent.

[1908] Selvi v. State of Karnataka, AIR 2010, SC 1974
[1909] Supra note 6
[1910] Supra note 5
[1911] Article 19(1)(a), Constitution of India 1950

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The right to remain silent is fundamentally a right to control the expression of one's thoughts. If the government can access neural data directly bypassing the individual's decision whether or not to speak—the right to remain silent becomes meaningless. Neural data access represents compelled extraction of pre-speech mentation, a deeper intrusion than compelled speech itself.

In Indian Express Newspapers v. Union of India,[1912]the Court observed that freedom of speech serves "to ensure the unfettered exchange of ideas for the attainment of truth and the realization of individual potential." This exchange of ideas presupposes that individuals retain control over which ideas to exchange and which to retain as private mentation.

IV. THE LEGISLATIVE GAP: INDIA'S DATA PROTECTION FRAMEWORK AND NEURAL DATA

A. The Digital Personal Data Protection Law

India's Parliament enacted the Digital Personal Data Protection Act[1913], to create a comprehensive framework for data protection. The Act establishes a consent-centric regime, requiring data fiduciaries to obtain free, specific, informed, and unambiguous consent for processing personal data.[41] It creates rights for data principals, including rights to access, correction, and erasure.[42]

B. The Research Exemption and Its Limitations

The DPDP Rules[1914] introduce a research exemption covering processing necessary for research, archiving, or statistical purposes, provided such work complies with standards in the Second Schedule. This exemption may ease constraints on non-commercial and academic research. However, as technology lawyer Dhruv Garg explains, exemptions "are given based on purpose," and companies invoking them must still respect transparency and meet prescribed standards. For neural data research, this exemption provides some flexibility but does not address the fundamental gap: the absence of heightened protections for particularly sensitive data categories.

C. The Information Technology Law and Interception Powers

The Information Technology Act, 2000[1915], and rules framed thereunder, govern interception of electronic communications. Section 69[1916] grants government authority to intercept information through computer resources on specified grounds including sovereignty, security, and public order.

This surveillance architecture, rooted in colonial legal traditions, operates with limited transparency. As Ujwala Uppaluri observes, "the colonial legal architecture for intercepting and monitoring our communications endures," and "whatever safeguards exist are rendered illusory and ineffective" when the same government branch that surveils also checks itself.

If this framework applies to neural data transmitted from BCI devices, the implications for mental privacy are profound. The state could potentially access not merely communications but the neural correlates of thought itself.

V. Recent Judicial developments:

The Supreme Court's judgment in Vibhor Garg v. Neha[1917] raises important questions about privacy's scope. This judgment might appear to narrow privacy protections. However, several factors distinguish it from the neural data context. First, the Court relied on a specific statutory exception. Second, the case involved communications between spouses in a matrimonial dispute, not governmental access to neural data. Third, the Court emphasized that recorded conversations assisted in determining mental cruelty a statutory ground for divorce under the Hindu Marriage Act[1918].

The judgment reaffirmed the principle from R.M. Malkani v. State of Maharashtra[1919] that

[1912] Indian Express Newspapers v. Union of India (1985) 1 SCC 641

[1913] Section 6, Digital Personal Data Protection Act, 2023

[1915] Information Technology Act, 2000, (Act No. 21 of 2000)
[1916] Section 69, Information Technology Act, 2000, (Act No. 21 of 2000)
[1917] Vibhor Garg v. Neha , 2025 INSC 829
[1918] The Hindu Marriage Act, 1955 Act No. 25 of 1955
[1919] R.M. Malkani v. State of Maharashtra, (1973) 1 SCC 471

electronic evidence may be admissible when relevant and authentic. However, it did not address the constitutional status of neural data or the limits of governmental access to mental content.

Critics have expressed concern that the judgment "will promote spousal surveillance and abuse of privacy laws," particularly affecting women "who are generally at the receiving end in a family or a live-in relationship." These concerns underscore the need for clear constitutional boundaries protecting mental privacy even in interpersonal contexts.

VI. TOWARD A CONSTITUTIONAL FRAMEWORK FOR MENTAL PRIVACY IN INDIA

A. Cognitive Liberty as a Fundamental Right Under Article 21

The Supreme Court's jurisprudence has consistently expanded Article 21 to encompass new dimensions of personal liberty in response to societal and technological changes. The right to education,[1920] the right to livelihood,[1921] the right to a clean environment,[1922] the right to health,[1923] the right to food,[1924] the right to shelter,[1925] the right to legal aid,[1926] the right to speedy trial,[1927] the right against handcuffing,[1928] the right to die with dignity,[1929] the right to marry,[1930]the right to privacy,[1931] and even access to the internet[1932] have all been recognized as facets of the fundamental right to life and personal liberty.

Cognitive liberty—the right to autonomy over one's mental processes and neural data—represents the logical next step in this evolutionary process. As the SCC Online blog argues, "the constitutional framework exists to recognise neuro-rights as fundamental protections; what is needed is judicial and legislative will to actualise these protections."[71]

B. Strict Scrutiny for Governmental Access to Neural Data

The Puttaswamy [1933] framework established that any curtailment of privacy must satisfy three requirements: legality, necessity and proportionality.

Given neural data's unique intimacy, governmental access should satisfy the most rigorous proportionality standard. The state must demonstrate a compelling interest and show that access is necessary and narrowly tailored. As the Court held in Modern Dental College v. State of Madhya Pradesh,[1934] proportionality requires balancing the importance of the purpose against the extent of rights infringement.

C. Lessons for India

India can adapt these international approaches while remaining sensitive to its constitutional context. Chile's constitutional amendment provides a model for permanent protection. The GDPR's special category approach illustrates how heightened protection can be implemented within general data protection law. The OECD's emphasis on responsible innovation offers guidance for balancing protection with progress.[1935]

VIII. IMPLEMENTATION WITHOUT STIFLING INNOVATION

A. Risk-Tiered Regulation

A risk-tiered approach reduces burdens for low-risk biofeedback products while placing strict requirements on devices that claim clinical benefit or collect high-fidelity streams. This approach, would "regulate them along a risk spectrum that integrates data protection for consumer devices with safety obligations for clinically significant systems."

[1920] Unni Krishnan v. State of A.P. (1993) 1 SCC 645
[1921] Olga Tellis v. Bombay Municipal Corporation (1985) 3 SCC 545.
[1922] Subhash Kumar v. State of Bihar (1991) 1 SCC 598.
[1923] State of Punjab v. Mohinder Singh Chawla (1997) 2 SCC 83.
[1924] PUCL v. Union of India, (1997) 1 SCC 301.
[1925] Shantistar Builders v. Narayan Khimalal Totame (1990) 1 SCC 520.
[1926] Hussainara Khatoon v. Home Secy., State of Bihar (1980) 1 SCC 98.
[1927] Ibid
[1928] Prem Shankar Shukla v. Delhi Admin (1980) 3 SCC 526.
[1929] Common Cause v. Union of India (2018) 5 SCC 1.
[1930] Lata Singh v. State of U.P. (2006) 5 SCC 475.
[1931] Supra note 3
[1932] Anuradha Bhasin v. Union of India (2020) 3 SCC 637.
[1933] Supra Note 5
[1934] Modern Dental College & Research Centre v. State of Madhya Pradesh, (2016) 7 SCC 353
[1935] Regulation (EU) 2016/679, art 9.

B. Regulatory Sandboxes

Sandboxes can help startups validate privacy-by-design and security claims under supervision, with clear time limits and public reporting. This approach, used successfully in financial technology regulation, could foster responsible innovation while ensuring compliance.

C. Procurement as a Driver of Best Practices

Public procurement can drive best practices. If public hospitals, universities, and research institutions buy only from vendors with auditable consent dashboards, on-device encryption, and short retention policies, the market will follow.

D. Research Exceptions and Institutional Oversight

Research exceptions should remain, particularly for medical and scientific advancement. The key is to ensure ethics review boards evaluate privacy risks alongside classical human-subject protections, and that data sharing agreements bind downstream recipients to the same safeguards.

IX. CONCLUSION

The Indian Constitution's framers placed liberty of thought at the very beginning of our constitutional document. They could not have anticipated technologies capable of reading the human mind. Yet the principles they embedded dignity, autonomy, privacy, freedom of thought provide a foundation for addressing this challenge.

India's Constitutional jurisprudence has consistently evolved to meet new challenges. In various cases the, the Supreme Court has recognized that personal liberty must adapt to changing circumstances while remaining anchored to constitutional values.

Similarly, mental privacy does not require a separate constitutional article. It resides within the inalienable values of life, liberty, and freedom that the Constitution already recognizes. The task for courts and legislators is to actualize these protections for the neurotechnology age.

As neurotechnology advances from medical applications to consumer products, India faces a critical choice between proactive protection of cognitive liberty and reactive measures after potential abuses occur. The constitutional framework exists to recognize neuro-rights as fundamental protections. What is needed is the will to actualize these protections.

The recognition of cognitive liberty under Article 21[1936] would affirm a fundamental truth that transcends technology: in a democratic society committed to the dignity of every individual, our thoughts must remain our own. As technology threatens to penetrate this last bastion of personal privacy, India must act decisively to protect the sanctity of the human mind.

[1936] Supra note 6