INDIAN JOURNAL OF LEGAL AFFAIRS AND RESEARCH

VOLUME 3 ISSUE 1

Peer-reviewed, open-access, refereed journal

IJLAR

+91 70421 48991
editor@ijlar.com
www.ijlar.com

DISCLAIMER

The views and opinions expressed in the articles published in the Indian Journal of Legal Affairs and Research are those of the respective authors and do not necessarily reflect the official policy or position of the IJLAR, its editorial board, or its affiliated institutions. The IJLAR assumes no responsibility for any errors or omissions in the content of the journal. The information provided in this journal is for general informational purposes only and should not be construed as legal advice. Readers are encouraged to seek professional legal counsel for specific legal issues. The IJLAR and its affiliates shall not be liable for any loss or damage arising from the use of the information contained in this journal.

Introduction

Welcome to the Indian Journal of Legal Affairs and Research (IJLAR), a distinguished platform dedicated to the dissemination of comprehensive legal scholarship and academic research. Our mission is to foster an environment where legal professionals, academics, and students can collaborate and contribute to the evolving discourse in the field of law. We strive to publish high-quality, peer-reviewed articles that provide insightful analysis, innovative perspectives, and practical solutions to contemporary legal challenges. The IJLAR is committed to advancing legal knowledge and practice by bridging the gap between theory and practice.

Preface

The Indian Journal of Legal Affairs and Research is a testament to our unwavering commitment to excellence in legal scholarship. This volume presents a curated selection of articles that reflect the diverse and dynamic nature of legal studies today. Our contributors, ranging from esteemed legal scholars to emerging academics, bring forward a rich tapestry of insights that address critical legal issues and offer novel contributions to the field. We are grateful to our editorial board, reviewers, and authors for their dedication and hard work, which have made this publication possible. It is our hope that this journal will serve as a valuable resource for researchers, practitioners, and policymakers, and will inspire further inquiry and debate within the legal community.

Description

The Indian Journal of Legal Affairs and Research is an academic journal that publishes peer-reviewed articles on a wide range of legal topics. Each issue is designed to provide a platform for legal scholars, practitioners, and students to share their research findings, theoretical explorations, and practical insights. Our journal covers various branches of law, including but not limited to constitutional law, international law, criminal law, commercial law, human rights, and environmental law. We are dedicated to ensuring that the articles published in our journal adhere to the highest standards of academic rigor and contribute meaningfully to the understanding and development of legal theories and practices.

EXAMINING THE NEURO LEGAL DISJUNCTION IN INDIAN LEGISLATION: IMPLICATIONS FOR ARTICLE 21

AUTHORED BY - ANMARIA K ABRAHAM
3rd year Law Student
CHRIST (Deemed to be) University

Abstract

The fast-growing advancement of neurotechnology has undermined the divide between self and surveillance, raising fundamental issues about the sanctity of thought, memory, and mental liberty. In India, as Article 21 of the Constitution has been read expansively for decades to safeguard life and personal liberty, the absence of express protection of "mental privacy" and "cognitive liberty" has left a big lacuna in the law. Although privacy and independence have been considered constitutional rights under the Supreme Court, recent neuro-forensic techniques such as narco-analysis and brain mapping expose the inadequacy of current safeguards. This research explains the scope of Article 21 in addressing neurotechnological incursions within the socio-legal paradigm of India with cultural values such as family intervention in personal decisions and stigma towards mental illness adding another layer of complexity to privacy. Drawing on a comparative examination of Chile's pioneering constitutional recognition of neuro rights, this article evaluates the adequacy of India's current constitutional, legislative, and procedural machinery for the protection of neural information. Employing doctrinal, analytical, and comparative methodologies, it argues in favour of a necessity to incorporate neuro rights into the Indian constitutional and legislative order for the protection of cognitive liberty and mental privacy as fundamental elements of human freedom in the digital age.

Keywords

Neuro rights, Article 21, mental privacy, cognitive liberty, Indian Constitution.

I. Introduction

In the not-too-distant future, an individual's most intimate sanctuary, his or her mind, might no longer be out of reach. Neurotechnology is transforming at lightning speed from a speculative frontier into a concrete force that can read, interpret, and even command human thought.[1] Equipment previously limited to the medical rehabilitation centre or the academic lab now extends its tentative tentacles toward commercial, forensic, and even military applications.[2] While brain-machine interfaces hold the potential to bring speech back to the mute and archive movement in the paralysed,[3] they also open the disquieting prospect of recalling memories without permission, reading unspoken thoughts, or influencing choice without knowledge. In this future, the powers separating self and surveillance come to be uncomfortably permeable.

In India, this change is coming against a multifaceted socio-legal context. The Article 21 of the Constitution, with its sweeping protection of life and personal liberty, has been amazingly flexible in acknowledging new rights, ranging from privacy to environmental protection.[4] But even this resilient provision is tested by the arrival of "mental privacy" and "cognitive liberty.". How does one protect an individual's neural information when societal culture commonly promotes family participation in intensely intimate decisions? How does one establish autonomy when there is a culture of mental illness stigma and shared beliefs about privacy that shape public policy and interpretive law?

The legal vacuum is most glaring in contrast to other countries' proactive actions. Chile took history in 2021 by modifying its Constitution to acknowledge "neuro rights" as basic guarantees and putting mental privacy and free will at the same level as other fundamental rights.[5] India, on

[1] Rafael Yuste et al., *Four Ethical Priorities for Neurotechnologies and AI*, 551 Nature 159 (2017).
[2] Marcello Ienca & Pim Haselager, *Hacking the Brain: Brain-Computer Interface Technology and the Ethics of Neurosecurity*, 18 Ethics & Info. Tech. 117, 119–20 (2016); Nita A. Farahany, *The Law and Ethics of Brain-Computer Interfaces,* 107 Calif. L. Rev. 1361, 1372–74 (2019); Jonathan D. Moreno, Mind Wars: *Brain Science and the Military in the 21st Century* 45-47 (2d ed. 2012)
[3] Luis F. Nicolas-Alonso & Jaime Gomez-Gil, *Brain-Computer Interfaces, a Review*, 27 Sensors 1211, 1213-14 (2012).
[4] Upendra Baxi, *The Avatars of "Indian Judicial Activism": Explorations in the Geographies of (In)Justice, in Fifty Years of the Supreme Court of India: Its Grasp and Reach* 156, 162-63 (S.K. Verma & Kusum eds., 2000).
[5] Chile, Law No. 21,383: Constitutional Reform to Establish Scientific and Technological Development at the Service of the People (Oct. 25 2021)

the other hand, still depends on wide constitutional interpretation in the absence of a particular legislative or constitutional framework to govern neurotechnological intrusions.

This research begins at the intersection of technology, culture, and law, asking a pressing question: can India's constitutional framework evolve quickly enough to protect the sanctity of the human mind? Through analysing the breadth of Article 21 in the context of advances in neurotechnology, determining the impact of Indian cultural mores on mental privacy, and comparative study of Chile's constitutional reforms, this research seeks to map the way forward for legal reform. In so doing, it aims not just to fill a gap in norms, but to ready India for an age when the most personal freedoms will hinge upon the manner in which we decide to guard our thoughts.

II. Article 21 and Emerging Rights

Article 21 of the Indian Constitution, which ensures that no individual shall be deprived of their life or liberty, except by a procedure established by law, has always been read as a living document expressing the core elements of human rights identified even in changing societal and technological contexts. In its humble beginnings in A.K. Gopalan v. State of Madras (1950),[6] the Supreme Court broadened the interpretation of Article 21 in Maneka Gandhi v. Union of India (1978) to not only consider legality but also that the procedure should be in harmony with fundamental rights and values of the Constitution such as fairness, justice, and reasonableness.[7] The Supreme Court has since then found new rights under Article 21 such as the right to education, health, environment, reputation, and now privacy.

Privacy as a fundamental right

In the landmark judgment Justice K.S. Puttaswamy v. Union of India, the Supreme Court declared a privacy banishment as one of the fundamental human rights. The nine-member bench, with utmost clarity had stated that the concept of privacy is not explicitly mentioned in the Constitution but forms the core idea of life and personal liberty under Article 21 and also the freedoms assured under Part III of the Constitution.[8] Instead of reaffirming the previous jurisprudential models,

[6] A. K. Gopalan v. State of Madras 1950 AIR 27
[7] Maneka Gandhi v. Union Of India 1978 AIR 597
[8] Justice K.S. Puttaswamy (Retd.) and Anr. v. Union of India and Ors. AIR 2017 SC 4161.

where privacy was seen as one discrete common law right category or an offshoot of property rights, the Court by basing privacy on the ideas of autonomy and dignity went ahead to raise it to the level of an absolute constitutional right, equal in rank with the other fundamental freedoms. The Court also characterized privacy as a complex concept whose different aspects such as decisional autonomy, physical integrity, and informational self-determination were identified.

This move thus keeps Indian legal tradition in sync with international human rights standards, like Article 12 of the Universal Declaration of Human Rights and Article 17 of the International Covenant on Civil and Political Rights, that notably offer protections to individuals against unwarranted interferences with privacy.[9] In particular, emphasizing the feature of informational privacy by pointing to the increasing perils of the info society, where the methods of surveillance and data collection have gradually intruded into privacy, have been quite deep and very different than the times when the Constitution came into force. Quite unexpectedly, the Court in Puttaswamy adopted a test of proportionality while weighing the counterpoised state interests against privacy and thus assigned privacy the status of one under reasonable restrictions rubric as opposed to it being an absolute right.

This will mean that though privacy is a right, it is not an absolute one. The intrusion can only be made by the State if the intrusion is in line with the law, is for a legitimate purpose and is proportionate to the need. This criterion, which has been used as a basis for subsequent rulings, for example, Aadhaar, data privacy, and surveillance, has a significant impact, among others, on these. Accordingly, the protection of privacy under Article 21 assumes the character both of a fortress and of a normative framework - a fortress that protects citizens from arbitrary executive actions and a normative framework that can be used to assess the legality of such interventions. By rooting privacy in respect, free will, and liberty, the High Court paved the way for lower courts to extend this concept further into areas like academic liberty and personal mental privacy.

[9] Universal Declaration of Human Rights, 1948, Art. 12; International Covenant on Civil and Political Rights, 1966, Art. 17.

Mental privacy as an extension of privacy

Drawing from Professor Alan Westin's idea of privacy, mental privacy may be understood as an individual's control over when, how, and to what degree details about their thoughts are shared with others.[10] A deeper interpretation of the term suggests that mental privacy signifies an individual's right to control access to their neural data, as well as to the insights about their mental processes and states that may be derived from such data.[11] In short, protecting ones mental privacy indirectly translates to protecting their neural data.[12] Neural data refers to information produced by the nervous system, encompassing the electrical interactions between neurons or indicators that represent such activity.[13] A breach of privacy at the neural level is particularly concerning as it overrides individual autonomy, exposing a person to the risk of their thoughts being accessed without consent or control.

Early Indian judicial responses, however, did not afford robust protection to this sphere. In Ramchandra Ram Reddy v. State of Maharashtra, the Bombay High Court supported the admissibility of neuro-investigative methods, differentiating between "statements" and "testimonies."[14] The Court argued that Article 20(3) outlawed only compelled statements, while the outcomes of brain mapping, lie detector tests, or polygraphs could not be regarded as "statements" but rather information elicited from the witness.[15] With this argument, the Court excluded neural outputs from the provisions of protections against self-incrimination.

This perspective was overruled by the Supreme Court in Selvi v. State of Karnataka (2010), when the Court recognized mental privacy as a crucial ingredient of personal freedom under Article 21. It ruled that the coercive giving of narcoanalysis, polygraph, and BEAP tests was an unjustified invasion of the mental domain, infringed dignity, and breached the right against self-incrimination

[10] Alan F. Westin, *Privacy And Freedom*, 25 Wash. & Lee L. Rev. 166 (1968).
[11] Abel Wajnerman Paz, *Is Mental Privacy a Component of Personal Identity?* 15 *Frontiers in Human Neuroscience* 1 (2021).
[12] Ishika Garg & Abinand Lagisetti, *Mind the Gap: Advocating for an Indian Legislative Response to Neurotechnology*, 12 NLIU L. Rev. 24 (2023)
[13] Abel Wajnerman Paz, *'Are Neural Data Protected by Bodily Integrity? A Discussion of the 'Organic' View on Neural Data Rights'* (Neuroethics Blog, 12 May 2020)
[14] Ramchandra Ram Reddy v. State of Maharashtra 1 (2205) CCR 355 (2004) (DB)
[15] Ibid.

under Article 20(3), particularly in light of their dubious scientific evidence.[16] It was further observed that even if there was consent, the result of the test would not be allowed as evidence though a derivative discovery under Section 27 of the Evidence Act, 1872 may be admissible. By incorporating the concept of procedural safeguards and elaborating on the dangers of abuse, force, and media leaks, the Court emphasised that the involuntary penetration of a person's thoughts is a violation of dignity and freedom under Article 21 and hence, by inference, of privacy as one's mental processes being sacrosanct.

Cumulatively these examples mark a momentous judicial evolution from the first application of neuro-forensic methods to the explicit acknowledgment by the courts that such invasive cognitive procedures have an impact on liberty, integrity, and secrecy. Though "mental privacy" is not yet explicitly recognized as an independent fundamental right, the case of Selvi v. State of Karnataka set the stage by affirming the mind is within the ambit of the safeguarded field under Article 21. This direction is indicative of cognitive liberty potentially becoming the next horizon in India's developing rights jurisprudence.

III. The Inadequacy of India's Existing Legal Framework

India's constitutional and legislative law claims to offer some protection to privacy, personal freedom, and personal liberty but they fall short while offering protection for mental privacy and cognitive liberty from harm by neurotechnology.[17] The basic law of the land under Article 21 of the Constitution safeguards the right to life and personal liberty; more and more, courts have interpreted this clause to include rights emerging out of it such as privacy, dignity, and bodily integrity. K.S. Puttaswamy v. Union of India, the Supreme Court defined privacy as one of the fundamental rights which had its ground in individual autonomy and informational self-determination under Article 21.[18] Likewise, in Selvi v. State of Karnataka, the Supreme Court felt that coercively used methods of narco-analysis, polygraph test, and brain mapping were not only the right against self-incrimination under Article 20(3) but also the right to privacy under Article

[16] Selvi & Ors vs State of Karnataka & Anr AIR 2010 SUPREME COURT 1974
[17] The Constitution of India, 1950 Art. 21.
[18] Justice K.S. Puttaswamy (Retd.) and Anr. v. Union of India and Ors. AIR 2017 SC 4161.

21 violated.[19] These decisions indicate a sense in courts that mental activity is central to individual freedom and dignity.

However, this protection is contradictory and based on the particular conditions, since there is no statutory or constitutional provision that explicitly addresses mental privacy or neural information as a specifically guarded zone. The existing government response to the matter of data capturing and the evidence procedures does not incorporate any security features against neurotechnology intrusion. An example is the Criminal Procedure (Identification) Act, 2022, which requires the procuring of biological samples and behavioural characteristics in respect of an investigation.[20] The vagueness of the term "behavioural traits" is disturbing since neuro data i.e. thought patterns or brainwave activity could be thought of as quantifiable traits without proper safeguards of informed consent or prevention against abuse.

Similarly, the Bharatiya Sakshya Adhiniyam, 2023 permits the recording of evidence in the shape of expert opinion and electronic evidence, which can now encompass neuroscientific information like brain scans or psychological assessments.[21] There is no provision within the Act for any methods or ethics for keeping a person safe from unauthorized access or modification of neural data. The Bharatiya Nagarik Suraksha Sanhita, 2023 gives the authority to carry out medical examination and research, but it does not categorically state the application of neuroscience as a means to reveal, thus leaving the accused vulnerable to exploitation at the hands of exploitation in case of lack of adequate measures.[22] In addition, the Digital Personal Data Protection Act, 2023 strictly defines personal and digital data that can incorporate technically neural data but does not incorporate extra protective provisions for such sensitive and highly intrusive data.[23]

While these laws do not expressly acknowledge mental privacy or neural data, their ambit and constitutional context allow for an interpretative inclusion. The general language of phrases like

[19] Selvi & Ors vs State of Karnataka & Anr AIR 2010 SUPREME COURT 1974
[20] The Criminal Procedure (Identification) Act, 2022
[21] The Bharatiya Sakshya Adhiniyam, 2023
[22] The Bharatiya Nagarik Suraksha Sanhita, 2023
[23] The Digital Personal Data Protection Act, 2023

"behavioural traits" under the Criminal Procedure (Identification) Act, 2022 or "personal data" under the Digital Personal Data Protection Act, 2023 might in theory cover neural information, although to date this has not been the subject of judicial scrutiny. Case law does not currently sanction this interpretation, as Indian courts have not yet directly dealt with the implications of neurotechnology under the law. Yet, based on the consistent broadening of Article 21 by the Supreme Court to include dignity, autonomy, and informational self-determination, it can be argued that neural rights, as safeguarding cognitive liberty, mental privacy, and integrity of thought, can be incorporated within the current constitutional framework. This reading is still normative and prospective more than it is a final legal position, but it highlights the necessity of approaching the neuro-legal disjunction prior to its forcing responses from courts and legislatures. Lack of a clear legislative framework explicitly dealing with neurotechnology subjects people to privacy invasion beyond the ordinary data leaks or spying issues. Not like regular personal data, neural information has direct bearing on a person's mental processes, recollections, and free will, which need an elevated level of protection. Judicial actions, however laudable, cannot replace a strong statutory framework that foresees emerging threats and balances ethics, technology, and cultural factors.

Due to these legal loopholes and the absence of defined protection measures, brain information can be used in the least expected ways, forced or to the unethical exploitation of the subject. Though court rulings based on Articles 20(3) and 21 have supported an aspect of privacy and individual liberty, these safeguards are isolated and insufficient to case the unique hazards posed by neurotechnology. The lack of a unified legal foundation and ambiguity in current laws cause a lack of trust and elevate the likelihood of violation, especially in cases where the rights to informed consent and procedural safeguards are disengaged or bypassed. The challenge thus transcends legal provisions to involve ethical, technological, and societal concerns that need to be addressed with great care in order to effectively ensure mental privacy and cognitive freedom are reasonably safeguarded.

While court decisions have laid the ground rules for mental privacy, the laws, and policies in India are far from adequate to meet the wide range of risks posed by neurotechnology. The gaps are not only about missing laws but also extend to the capacity of institutions, the regulation of the flow

of goods, security, and governance beyond national borders. This evaluation critically surveys these failures, which together form a delicate climate for cognitive freedom.

Inadequacy of Core Legal and Data Protection Frameworks

The problem lies at the source in an architecture of law not attuned to the idiosyncratic nature of neural data. The Digital Personal Data Protection Act, 2023, is based on consent but is not attuned to the hyper-sensitive nature of neural information.[24] The Digital Personal Data Protection Act, 2023, applies a uniform standard of protection across all personal data categories, without offering differentiated safeguards for more sensitive information such as neural or mental data.[25] This absence of a tiered approach raises concerns about its adequacy in protecting highly sensitive data. This "one-size-fits-all" approach to consent does not fit for a region where the consequences of data sharing can become irreversible.

Similar vagueness exists in criminal and forensic law, and there it is equally disquieting. Under the Criminal Procedure (Identification) Act, 2022, "behavioural attributes" may be obtained, a phrase which can be used to disguise neuro-investigative tests, and therefore avoid the safeguards articulated in Selvi v. State of Karnataka.[26] Apart from that, the Bharatiya Sakshya Adhiniyam, 2023, is not talking about the parameters of admissibility or the credibility of the neuroscientific evidence, which may result in the entry of the scientifically questionable evidence in the court.[27] Given the weak state capacity in India and the broad discretion granted to regulatory authorities, relying on judicial remedies to address privacy breaches on a case-by-case basis is likely to be reactive, uncertain, and inadequate for dealing with the systemic challenges posed by rapidly evolving technologies.[28]

[24] Ishika Garg & Abinand Lagisetti, *Mind the Gap: Advocating for an Indian Legislative Response to Neurotechnology*, 12 NLIU L. Rev. 24 (2023)
[25] Digital Personal Data Protection Act, 2023
[26] The Criminal Procedure (Identification) Act, 2022, § 2(1)(b); Selvi v. State of Karnataka, (2010) 7 S.C.C. 263.
[27] The Bharatiya Sakshya Adhiniyam, 2023
[28] Vrinda Bhandari & Renuka Sane, *Protecting Citizens from the State Post Puttaswamy: Analysing the Privacy Implications of the Justice Srikrishna Committee Report and the Data Protection Bill, 2018*, 14 Socio-Legal Rev. 144, 163–66 (2018).

Commercial Exploitation and Cybersecurity Vulnerabilities

Aside from the state, the most immediate danger lies within the commercial sphere. As wearable neuro-monitoring technology and brain-computer interfaces become increasingly prevalent, companies can siphon and profit from neural information for behavioural control, cognitive fingerprinting, and mass-targeted advertising on a scale previously unimaginable. In the absence of industry-specific legislation to regulate the commercial exploitation of neural information, people are left vulnerable to harms much more pervasive than conventional data hacks.

This immense repository of sensitive information is a top target for cyberattacks. Neural data, as opposed to a password, cannot be updated once hacked. One of the crucial gaps in the Indian data governance framework is the lack of securely isolated neural databases that are specifically designed for cybersecurity of brain-machine interface systems. The existing standards and stipulations fall short in terms of the requirements needed to protect against very complex malware or ransomware attacks targeting brain-machine interface devices. This double threat of corporate manipulation and cyber-vulnerability subjects citizens to both market pressures and malevolent forces.

Institutional Fragmentation and Lack of Capacity

Governance with the desired results is weakened by the existence of a fragmented regulatory landscape.[29] The responsibility for technology, healthcare, and privacy is spread over various ministries, like the Ministry of Electronics and Information Technology and the Ministry of Health and Family Welfare, without a single body in charge of neuro-rights. Due to this fragmentation, there are also jurisdictional overlaps and inconsistencies in the guidelines issued. A neuro-device, for instance, that may be covered under the Mental Healthcare Act,[30] 2017, for its therapeutic use can be under different data laws for the information it collects.

[29] Government of India, Reply to Lok Sabha Unstarred Question No. 1994 on Evolution of Neurotechnologies, Ministry of Health & Family Welfare, Dept. of Health & Family Welfare (Dec. 6, 2024), https://share.google/VXZviRK93WFpZjosi. (Last visited on September 27, 2025)
[30] Mental Healthcare Act, No. 10 of 2017

Moreover, this void in the institutional setup is further aggravated by the absence of adequate professional training among the primary stakeholders. The police, the judiciary, and the healthcare professionals are most of the time not equipped with the necessary skills to comprehend the ethical and legal implications of neurotechnology. The practical enforcement of the rights under Article 21 is exposed to abuse and accidental breaches, even if the law is strong, without the support of structured capacity-building initiatives and professional awareness.

Emerging Threats from AI and Global Data Flows

One of the implications of the combination of Artificial Intelligence and neuro-interfaces is the opening of a new field with numerous challenges. AI models that have been trained using neural data can not only foretell human behaviours but also influence it in such a way that free will is subtly violated. At the moment, regulations do not cater for the openness of the algorithmic, the possibility of bias, the issue of accountability for neuro-assisted technologies, which creates a gap in assigning responsibility for AI-caused cognitive interference.

Besides, neurotechnology is a global phenomenon. India's domestic laws are not adequate to safeguard neural data if there is no international harmonization. This, in turn, gives rise to the possibility of regulatory arbitrage where businesses can locate themselves in different areas to take advantage of the less strict rules and thus have easier access to data processing.[31] Without the cross-border agreements that are in line with the emerging international neuro-rights frameworks, the neural data of the Indian people is still vulnerable to spying and abuse even in places where the national authorities cannot get there.

IV. Family, Stigma, and the Cultural Dimensions of Mental Privacy

Even though the progress in artificial intelligence and brain-machine interfaces has brought new kinds of cognitive interferences and data vulnerabilities, these risks are still not isolated. Besides the influence from the global regulatory shortcomings and the algorithmic manipulation, mental privacy is also determined by fundamental social and cultural factors. The understanding of mental

[31] United Nations Secretary-General's Scientific Advisory Board, Neurotechnology, https://www.un.org/scientific-advisory-board/sites/default/files/2025-02/neurotechnology_0.pdf (Last visited on September 17, 2025)

privacy within India is heavily influenced by socio-cultural norms which determine the way people control what they think, intend, and know. In contrast with Western theories where individual autonomy is paramount, Indian culture inscribes collective decision-making in which family and society actively intervene in controlling personal disclosure and conduct.[32] In the case of mental privacy, this translates to people being pressured to adjust or repress their feelings, thoughts, or mental expressions to suit family dynamics, social norms, or assumed responsibilities. Such cultural pressures present a special challenge for the identification and safeguarding of mental privacy in law under Article 21.

Family Influence on Cognitive Autonomy

In India, families become the unofficial regulators of the mental and behavioural dimensions of knowledge. People can find themselves in a position where they are implicitly or explicitly pushed to reveal, or simultaneously keep hidden, their personal thoughts, views, or thinking processes that align with the family's interests.[33] In a new neurotechnology environment, where brainwave activity, neural data, or cognitive measures can be collected, these types of pressures could influence voluntariness of consent. For instance, an individual may be compelled to undergo neuroimaging or cognitive studies to satisfy the family, or members of the family may surreptitiously attempt to acquire sensitive information from devices, digital records, or from institutional evaluations without proper authorization.

Even in everyday life, societal norms tend to restrict the freedom of thought: people internalize rules that govern what they "should believe" or feel. These conditions, albeit social in nature, are immediate breaches of mental privacy as they specify the form in which the cognitive process is manifested or recorded. This makes one important consideration for Indian neuro-legal discussion: not just the avoidance of state or institutional access but the preservation of individuals from cognitive conformity imposed by society.[34]

[32] Amita Dhanda, *Legal Order and Mental Disorder* 15-17 (Sage Publ'ns 2000).
[33] Vikas Bhatia, Rohit Garg & Abhiruchi Galhotra, *Family and Mental Health in India, in Community Mental Health in India* 77 (2012), https://www.researchgate.net/publication/324794644_Family_and_Mental_Health_in_India (Last visited on September 23, 2025)
[34] Sumeet Jain & Sushrut Jadhav, *A Cultural Critique of Community Psychiatry in India*, 38 Int'l J. Health Servs. 561 (2008),

Stigma and Cognitive Self-Censorship

Mental health stigma, emotional expression, or deviance from social norms also undermines mental privacy by promoting self-censorship.[35] People may choose not to express certain thoughts or feelings even in a private conversation, digital media, or a secure research environment, if they were to do so and were judged, discriminated against, or had their reputation tarnished. Social stigma, therefore, becomes a means through which cognitive freedom is indirectly violated, thus the throttling of mental privacy occurs.

The situation is especially serious with neurotechnology. For instance, brain-computer interfaces, cognitive profiles, or neural data collection may uncover the most private thoughts, likes, or behavioural tendencies. In a culture rampant with stigma, people may not be able to give true consent hence the ethical and legal costs of neural data collection go up.

Legal Protections and Cultural Reality

Although Article 21 provides right to life and liberty encompassing the right to privacy and dignity, the validation of such rights by the judiciary is yet to fully embrace the socio-cultural facets. The Supreme Court in K.S. Puttaswamy v. Union of India, has identified that privacy is an aspect of the autonomy of the individual and informational self-determination.[36] Nonetheless, the practical application of these rights still remains limited to instances where family domination and social pressures exert influence on the cognitive and emotional expression. Similarly, the Mental Healthcare Act, 2017, and other laws that currently exist appear to give more priority to confidentiality of mental health information than the overall protection of cognitive or neural information.[37]

This lacuna necessitates that Indian mental privacy be addressed in a culturally responsive way. It is essential that the law acknowledges the fact that the rights of self-determination and agreement

https://www.researchgate.net/publication/23191365_A_Cultural_Critique_of_Community_Psychiatry_in_India (Last visited on September 23, 2025)

[35] Biju Viswanath & Santosh K. Chaturvedi, *Cultural Aspects of Major Mental Disorders: A Critical Review from an Indian Perspective*, 34 Indian J. Psychiatry 306 (2012), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662125/. (Last visited on September 23, 2025)

[36] Justice K.S. Puttaswamy (Retd.) and Anr. v. Union of India and Ors. AIR 2017 SC 4161.

[37] Mental Healthcare Act, No. 10 of 2017, § 23

are influenced by the society's standards, contributions of the family and the stigma, all aspects that affect an individual's ability to exercise mental freedom. Thus, ensuring mental privacy in India goes beyond technology and legislation besides understanding the cultural subtleties that influence people's lifestyles and their thinking patterns.

Family involvement and cultural stigma are two aspects which suggest that mental privacy as secured under Article 21 of the Indian Constitution is not only hampered by legislative loopholes but also by culture-mediated social practices which intrude into the autonomy of the individual. This dual disjunction, i.e., between culture and law and between emerging neuro-technological risks and existing constitutional protections, is thrown into sharp relief by the richness of attaining cognitive freedom in India. While judicial interpretations based on Article 21 have been expansive, their actual application as viable guarantees of mental privacy still needs to converge with the familial and social realities of controlling behaviour and social stigma. The legal system will fail to provide adequate protection of mental privacy; hence people will be exposed to extrinsic invasions by neurotechnology and intrinsic control by societal structures if the legal system does not clearly enmesh these social forces and alongside technological concerns.

V. Comparative Perspectives on Neuro Rights: Insights from Chile and Global Developments

Neuro-rights have not yet been incorporated into the Indian Constitution or statutory law, and presently it is not clear whether such rights will be acknowledged in the future. The comparative parts from other jurisdictions and different international organizations are still quite helpful in understanding. The constitutional amendment proposal of Chile, ethical programs of UNESCO, regional precedents such as Parlatino's law, and the academic frameworks of governance indicate the future of the legislative neurotechnology and its problems.

Chile's Constitutional Model and Judicial Enforcement

Relating to Chile, it is the first nation to define neuro-rights in its Constitution. The Law No. 21.383, approved in 2021, changes Article 19 of the Constitution, where it reads that the scientific and technological advancement must be in line with the life, physical and psychic well-being, and

"the law will specially protect brain activity as well as the information derived from it".[38] This modification explicitly shows that the neural activity and brain information have protection status according to the Constitution, acknowledging them as the most sensitive and vulnerable subjects of the neurotechnology era.

However, the Chilean contribution is not limited to a merely symbolic constitutional status. The Supreme Court in Girardi Lavin v. Emotiv Inc. (2023) decided that the data collected by a brain-wave device relates to the constitutional rights to dignity and privacy and hence unauthorized information should be deleted and the primacy of consent should be always there.[39] This event was the first example of the concrete implementation of neuro-rights and it was pointing out both the possibilities of their enforcement and the difficulties of managing the technology at the border of the disciplinary and commercial areas. India can take a lesson from Chile that it will be possible to actualize neuro-rights through the combination of constitutional recognition and judicial activism but at the same time the capacity of enforcement can be the issue.

International Norm-Setting: UNESCO and Global Ethics

On an international scale, UNESCO has emerged as the centre of ethical discussions around neurotechnology. In 2021, its International Bioethics Committee indicated that neurotechnology is a threat to identity, autonomy, and mental privacy.[40] Building on these worries, UNESCO established in 2024 a 24-member expert group that was given the task to prepare a standard-setting instrument on neuro-technology ethics for the 2025 adoption.[41] Though such frameworks do not have legal force, they affect the national dialogues and provide criteria for the countries that are into neuro-legal reforms.

[38] Chile, Law No. 21.383, Oct. 14, 2021, amending Art. 19 of the Political Constitution of the Republic of Chile. See Neurorights in the Constitution: From Neurotechnology to Ethics and Law, R. Soc'y Publishing (2023).
[39] Girardi Lavin v. Emotiv Inc., Supreme Court of Chile, Judgment of Aug. 9, 2023. See Chilean Supreme Court Ruling on the Protection of Brain Activity, PubMed Central (2024).
[40] UNESCO, Ethical Issues of Neurotechnology, Int'l Bioethics Comm. (2021).
[41] UNESCO, *The Ethics of Neurotechnology: UNESCO Appoints International Expert Group to Prepare New Global Standard*, UNESCO, https://www.unesco.org/en/articles/ethics-neurotechnology-unesco-appoints-international-expert-group-prepare-new-global-standard (Last visited on September 20, 2025)

The global ethical framing is significant for India: it locates neuro-rights in the wider context of human dignity, freedom of thought, and the right to privacy, which already have powerful judicial roots under Article 21. By taking part in the UNESCO process, India might synchronize the domestic reforms with the rising global standards and thereby maintain the compatibility with the international norms while adjusting the safeguards as per its socio-legal context.

Regional and Scholarly Models of Governance

Regional initiatives, in addition, signify the multiple regulatory methods that are illustrated. In 2023, the Latin American Parliament (Parlatino) endorsed a Model Law on Neuro-Rights which suggested several protections for mental privacy, free will, personal identity and also the protection from algorithmic bias besides access to the enhancement technology.[42] Although lauded for its novel ideas, this law has also faced scepticism with respect to the ambiguity of its definitions and the excessive inclusion of certain rights, even those that are only hypothetical.[43] The case of India makes the point that the law needs to be carefully and clearly written to provide the protections required yet not be open to multiple interpretations.

As well, the scholars have brought the most plausible governance frameworks. For instance, Marcello Ienca and his team have developed a complete brain data governance system based on the principle of informed consent, the algorithmic processing transparency, and the control over the commercial use of neurodata. [44]The research here takes the reality of the situation and presents the step-by-step solutions in the practical leading of the operations to the level of the personnel who are actually implementing it done in the context of broad constitutional or ethical proclamations.

Lessons for India

Comparative analysis delineates the lessons that India can draw from all of this. To begin with, Chile exhibits both the symbolic and the practical value of constitutional recognition, yet at the

[42] Diego Borbón, *What a NeuroRights Legislation Should Not Look Like: The Case of the Latin American Parliament*, 18 Frontiers in Neuroscience 1514338 (2025), https://doi.org/10.3389/fnins.2024.1514338 (Last visited on September 23, 2025)
[43] Ibid
[44] Marcello Ienca et al., *Towards a Governance Framework for Brain Data*, arXiv Preprint (2021).

same time the absolute necessity of judicial and regulatory follow-up.[45] Secondly, UNESCO's projects reveal that implanting neuro-rights into a global ethical framework may be crucial, as this framework should harmonize with the existing rights jurisprudence.[46] Thirdly, the regional and academic models serve as a warning against the dangers of vague or overbroad drafting and at the same time underline the necessity of the presence of enforceable safeguards, especially in terms of consent and the commercial use of neurodata.

These different scenarios reflect the reality of neuro-rights introduction in India not only as a possibility but also as a challenge. Any Indian framework would have to strike a balance between encouraging innovation and providing protection so as to make sure that technological progress is in the service of human dignity and at the same time the dangers of overgeneralization and weak enforcement are avoided.

VI. Findings and Recommendations

Findings

The study shows that although the Supreme Court of India has interpreted Article 21 of the Indian Constitution as including various aspects of life and liberty, it has not yet made an explicit mention of the new liberties offered by neurotechnology. A comparison reveals the fact that different legal systems, e.g. the Chilean one, have gone further in recognizing neuro-rights in their constitutions explicitly, whereas the Indian system is still based on the general notions of privacy and dignity. The research also points out that current Indian legislation, including the laws on data protection and mental health, only provides limited protection against the specific threats of cognitive intrusion, manipulation, or neuro-discrimination. Besides, the study at the end of it highlights that the future establishment of the neuro-rights in India has to be deeply embedded in the indigenous socio-cultural contexts whereby individual autonomy has to be balanced with familial and societal values and still be in harmony with the global ethical standards.

[45] Constitución Política de la República de Chile [C.P.] art. 19(1), (2021 amendment recognizing neuro-rights).
[46] UNESCO, Universal Declaration on Bioethics and Human Rights, Oct. 19, 2005, 33 C/Res. 36.

Recommendations for an Indian Neuro-Rights Framework

The insights from Chile, UNESCO, and regional comparisons present the fact that neurotechnology is a law settler and India's pace with it should not be lagged. Without anticipatory safeguards, the likelihood of coercion, corporate exploitation, and cultural pressure on autonomy may become so high that they will make even Article 21's protection insufficient. These recommendations are proposed to enhance the existing legal and policy framework of India to cope with neurotechnology.

1. **Explicit Legal Recognition of Neuro-Rights**

   Mental privacy and cognitive liberty should be formally defined and protected in India by either a constitutional amendment or a separate Neuro-Rights Act. Chile's change in the constitution (Law No. 21.383) is a good example of the recognition of brain activity and data as fundamental rights, not only in words but also in practice.[47] India could therefore maintain the current position of the courts as the main interpreters of Article 21 while adding a legislative or constitutional guarantee for further protection and transparency.

2. **Amendments to Existing Laws**

   The newly enacted Digital Personal Data Protection Act of 2023 (DPDP Act) needs amendments that explicitly recognize neural information as personal data that is sensitive and requires the highest level of protection. At present, the Act provides that the same standards for consent are to be applied to all the different categories of data; this, however, is not enough for neural information that is irreversible and ultra-sensitive.[48] Similarly, the use of terms like "behavioural traits" in the Criminal Procedure (Identification) Act, 2022[49] is so vague that such a provision could be misused to justify intrusive neuro-investigative methods that are not in line with the safeguards set in Selvi v. State of Karnataka. Indian evidence law should not only set the standards explicitly for the admissibility of the

[47] Constitución Política de la República de Chile art. 19, as amended by Law No. 21.383, Sept. 15, 2021 (Chile).
[48] Mala Ramanathan, *The UNESCO-Draft Recommendations on Ethics of Neurotechnology - A Commentary, 10 Indian J. Med. Ethics* (NS) 89, 90 (2025).
[49] The Criminal Procedure (Identification) Act,2022

neuroscientific evidence but also restrict it to the collection of the brains' voluntary activities using reliable scientific methods consistent with the constitution.

3. Specialized Regulatory and Ethical Oversight

It is advised for India to come up with a commission to deal with issues related to neurotechnological ethics and regulations that will be composed of legal, medical, scientific, and ethical experts. Such a body will be responsible for managing the use of neuro-devices, the enforcement of consent standards, the monitoring of commercial practices, and the reviewing of the forensic applications.[50] The case of UNESCO is still setting a standard for the importance of having ethical review mechanisms that are totally independent as far as governance of the neurotechnology sector is concerned.[51]

4. Procedural Safeguards and Forensic Restrictions

Strong procedural safeguards are very necessary for the prevention of coercion in a forensic context and policing. The informed consent should really be so only when it is completely devoid of family or institutional pressure and is revocable. The involuntary extraction of neural data, no matter whether it is through narcoanalysis, polygraph, or even brain-imaging techniques, should still be prohibited as in the case of Selvi.[52] Furthermore, courts should start utilizing stringent admissibility criteria for neuroscientific evidence that meets the requirements of being reliable, proper, and respectful of human dignity.

5. Regulation of Commercial Use and Data Security

The maturing market for consumer neuro-devices that concern gaming, wellness, and workplace monitoring is accompanied by a litany of anxieties as to how the growing industry might exploit users.[53] One solution to this problem is to create industry-specific regulations, which, among other things, would require full disclosure of how data is

[50] International Bioethics Committee, *Report of the International Bioethics Committee of UNESCO (IBC) on the Ethical Issues of Neurotechnology*, UNESCO Doc. SHS/BIO/IBC-28/2021/3 Rev. (Dec. 15, 2021).
[51] UNESCO, Universal Declaration on Bioethics and Human Rights, Oct. 19, 2005, 33 C/Res. 36.
[52] Selvi & Ors vs State of Karnataka & Anr AIR 2010 SUPREME COURT 1974
[53] Marcello Ienca & Roberto Andorno, *Towards New Human Rights in the Age of Neuroscience and Neurotechnology?* 13 Life Sci., Soc'y & Pol'y 5 (2017).

collected, forbid secondary use of it without user consent, and set stringent data security standards (like encrypting, anonymizing, and deleting). According to the experts, there is no way to "reset" neural data once it has been hacked just like a password, which is why the security of the data needs to be doubly guarded.

6. **Cultural Responsiveness and Capacity Building**

Whereas Indian culture is primarily characterized by family decision-making and has stigma attached to mental health, the legal provisions must also be in line with these facts and be able to address such issues.[54] Laws should allow the possibility that the "family consent" given might have been coerced and should include safeguards that would ensure the individual's autonomy. At the same time, programs ought to concentrate on spreading the word, familiarizing the judiciary and police force, and setting up neuroethics committees in institutions that will guarantee the professionals' mastery of science and ethics in the field of neurotechnology.

7. **Principles-Based Precautionary Approach**

At the end of the day, India should resort to precautionary and principles-based regulation as its approach. When a person's neural data is accessed, the principles of proportionality, necessity, and dignity must be the judges of how this is done. Apart from this, equity should also be a hallmark value turning it into the major factor in the protection of the less fortunate groups from being subjected to excessive surveillance or commercial exploitation. In the context of neurotechnology rapidly integrating with artificial intelligence, anticipatory governance rather than reactive litigation should be India's motto.

VII. Conclusion

Conclusion: Towards Cognitive Liberty in India

Neurotechnology has emerged to question the privacy, dignity, and autonomy of human beings in India. For a long time, Article 21 has been the provision that lives on to demonstrate how it can

[54] Venkatesan Chakrapani & Shalini Bharat, *Mental Health in India: Sociocultural Dimensions, Policies and Programs- An Introduction to the India Series*, 4 SSM Mental Health 100277 (2023), https://doi.org/10.1016/j.ssmmh.2023.100277 (Last visited on September 23, 2025)

spread to the new social and technological realities in India. But as this research has shown, mental privacy and cognitive liberty, when stripped to their bare bones, are still less than enough protected especially if we consider neuro-forensic practices, consumer neuro-devices, and cultural pressures that are so powerful that they can compromise our ability to give genuine consent. Such Court decisions like Selvi v. State of Karnataka have not only forbidden coercive methods but also gone a long way toward the protection of civil rights in India. They are still just one part of the whole and, in the absence of a more detailed statutory or constitutional framework, are fragmented in their impact.

The Chilean constitutional amendment and UNESCO's international standard-setting efforts as reported by comparative perspectives are at one in recognizing that neuro-rights are becoming key human rights essential for human dignity. India, meanwhile, continues to depend on the flexible interpretation of case law rather than the establishment of firmly guaranteed rights. This mode of development leaves the data collected from the brain and cognitive autonomy tender to be maliciously exploited by both government authorities and businesses. The danger is double-faced, in that cultural factor like family intervention in personal choices and stigma toward mental health issues, only serve to aggravate the problem of autonomy exercise in reality.

The recommendations made in this study, which include everything from the deliberate declaration of neuro-rights and creation of new laws, special regulatory bodies, and culturally sensitive safeguards all go to show how India can move forward. Whether through a revision of the constitution or changes made by law, it is India's responsibility to make sure that intellectual freedom and mental privacy are not regarded as fringe issues, but rather as basic human rights that necessitate safeguarding in the digital era.

Primarily, the protection of the purity of the human brain is a legal duty, an ethical obligation, and a cultural demand. With neurotechnology advancing at such a fast pace, the real question that comes up is not if India should act but rather how quickly and effectively it will do so. Article 21, once more, has got to be the chamber for the unfolding and defending of new rights that, in this case, are to secure the very last frontier of privacy: the human mind.