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RECEIVED 29 November 2023

ACCEPTED 08 February 2024

PUBLISHED 21 February 2024

CITATION

Borbón D and Ramírez-Gómez JA (2024)
Between politics and scholarship: the
(un)settled debate over neurorights.
Front. Polit. Sci. 6:1335561.
doi: 10.3389/fpos.2024.1335561

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Between politics and scholarship: the (un)settled debate over neurorights

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KEYWORDS

neurorights, neurolaw, neuroethics, neurotechnology, human rights, neuroscience, cognitive liberty

1 Introduction

Recent breakthroughs in neurotechnology and AI have led to proposals for “neurorights”—a new category of rights intended to safeguard cognitive liberty, neural data privacy, mental integrity, autonomy, psychological continuity, and others. This paper scrutinizes current political initiatives and the haste and ambiguity in the conceptualization of neurorights. It also presents what might be a settled debate and a false dilemma: the creation of new rights is not the only regulatory option. The development of current rights, as well as the promotion of legislative reforms and specific international conventions, seems to be a better and more effective solution. The conclusion argues that the neurorights dialogue must balance politics with caution and requires substantial academic deliberation before creating new lists of problematic rights that might be legally inconvenient, inconsistent, and premature.

2 Political advancement in neurorights proposals

Without a doubt, politics has played a significant role in influencing the neurorights landscape. As we move further into the advancement of contemporary neurotechnology and artificial intelligence, nations and organizations worldwide have started to recognize the necessity for new regulations. The proposition to establish new neuro-specific rights originally came from [Ienca and Andorno \(2017\)](#), who suggested adding four new rights. This was complemented by the proposal from [Yuste et al. \(2017\)](#), who identified four ethical priorities regarding neurotechnology and proposed the creation of new rights that now integrate the list of five rights advocated by the [NeuroRights Foundation \(2023\)](#): mental privacy, personal identity, free will, fair access to mental augmentation, and protection from bias.

At the forefront of this movement is Chile, with an important effort toward the inclusion of a brief protection of mental integrity, brain data, and brain activity, as seen in the new reform in article 19 of its Constitution ([Biblioteca del Congreso Nacional de Chile, 2021](#)). In addition, in 2021 a neuroprotection bill was presented that included the five neurorights proposed by the NeuroRights Foundation, but so far the project has not advanced ([Chilean Senate, 2021](#)). Likewise, Brazil is moving forward with a bill (PL 522/2022) to define neural data and establish rules for its protection ([Chamber of Deputies of Brazil, 2022](#)), Argentina is promoting bill 0339-D-2022, which would add safeguards and mandate prior consent and a court order before using neurotechnology in criminal proceedings ([Argentine Deputies, 2022](#)), France incorporated the new Law 2021-1017 relating to bioethics and the possibility to prohibit neurotechnologies that could cause

harm (Government of France, 2021), and Spain has a new Digital Rights Act, non-binding legally, but with a soft law approach on neurorights (Government of Spain, 2021).

On the other hand, international organizations are also acknowledging the importance of neurorights. For example, the United Nations (UN) produced a report on ethical issues of neurotechnology, adopted by the International Bioethics Committee (2022) of UNESCO, and a recent resolution A/HRC/RES/51/3 of the Human Rights Council, approved on October 6, 2022, in which a study on the repercussions of neurotechnology for human rights is commissioned (Human Rights Council, 2022). At the regional level, in 2021 the Organization of American States (OAS) issued a declaration which contains a series of recommendations (Inter-American Juridical Committee, 2021) that was followed by a declaration of Inter-American Principles on Neurosciences and Human Rights approved in 2023 (Inter-American Juridical Committee, 2023). Finally, by April 2023, the Latin American Parliament issued a Model Law on neurorights (Parlatino, 2023).

Although these political initiatives highlight the global recognition of the normative urgency, it is interesting to note that many of these initiatives are not, in the strict sense, neurorights initiatives, since in some cases, such as in Argentina, a bill is being promoted to address procedural and penitentiary rules, without creating new lists of rights. Others, as in the case of the proposals advanced in the OAS or the UN, advocate for a soft law approach with principles and guidelines, or prioritization of studies and research, again without lists of new rights. In any case, as more nations and organizations join this political tendency, it will be essential to establish a cohesive framework that encapsulates the diverse perspectives and nuances of the so-called “neurorights.”

3 Academic criticisms

While these political developments signal a recognition of the importance of regulation, several academic voices have raised concerns. Christoph Bublitz criticizes the inflation of rights, warning that without a robust academic debate, the creation of neurorights might lead to a devaluation of existing rights (Bublitz, 2022). Moreover, he contends that the discussion around neurorights has been marked by political activism and lacks the appropriate involvement of legal experts, “[c]onsequently, lobbying on their behalf should cease” (Bublitz, 2022, p. 2).

Similarly, Ienca, who also led one of the seminal papers, argues that despite the media coverage, neurorights have limited presence in academic literature, and that “its relative sporadic nature in the academic literature raises a risk of semantic-normative ambiguity and conceptual confusion” (Ienca, 2021, p. 6). Moreover, Fins, argues that the current Chilean neurorights reforms do not meet several critical criteria and that they are vague and premature, so they “should undergo additional scholarly scrutiny and should not be adopted by other jurisdictions” (Fins, 2022, p. 8).

Additionally, scholars such as Ruiz et al. (2021) have warned that certain proposals in Chile could lead to negative effects on research and medical practice. Moreu Carbonell (2021) argues that the Chilean reform is not justified and that “rather than outlining new neuro-rights, it is more important to guarantee

already existing rights against the risks of neurotechnology” (p. 162). López-Silva and Madrid (2021) consider the constitutional amendment to include neurorights technically unnecessary, but see the introduction of a bill on the matter as advisable. Similarly, De Asís (2022) states that the most accurate criticism is the lack of a broad and profound academic debate on the subject. Fyfe et al. (2022) maintain that the expansion of rights can inflate current human rights to the extent that it diminishes the actual and material capacity to enforce them. Recently, Lighthart et al. (2023a) debated the desirability and necessity of translating and condensing the philosophical and ethical underpinnings of “neurorights” across disciplines into specific international rights and integrating them into existing human rights frameworks due to their varied conceptualization. Also, Lighthart et al. (2023b) argue that we need new laws, not a new list of rights: a position with which we agree.

Furthermore, Borbón and Borbón (2021) have proposed similar arguments emphasizing that creating the rights proposed by the NeuroRights Foundation is conceptually problematic, bioethically, and financially inconvenient, and legally unnecessary.¹ For example, as a conceptual inconvenience, the notion of a neuroright to free will could be questioned due to its philosophical complexity (Muñoz, 2019; Borbón and Borbón, 2021). Also, there are particular ethical and practical concerns on a neuroright to equal access to mental augmentation, as promoting access to cognitive enhancement might include the risk of creating new societal, academic, and labor standards that could pressure individuals who choose not to enhance themselves. Also, as a financial problem, creating a new positive right means that states would need to bear on the financial burden of providing these enhancement technologies that do not have purposes of public health (Borbón and Borbón, 2021; Muñoz and Borbón, 2023).

1 Regarding the five rights proposed by the NeuroRights Foundation, for Borbón and Borbón (2021), the idea of a neuroright to free will is conceptually problematic given complex philosophical debate, making it more appropriate to protect consent to the use of neurotechnologies within the existing right to informed consent and other negative freedom rights. Also, they argue that creating a right to mental augmentation raises concerns about potential ethical, societal, and financial consequences, as it may inadvertently pressure individuals to enhance themselves, burden the state financially, widen global disparities, and clash with cultural and religious beliefs (Borbón and Borbón, 2021). Furthermore, the concept of personal identity might also be complex as it intersects with the inevitable potential for neurotechnology to alter the mind, making it challenging to define and regulate boundaries. Regarding protection from algorithmic bias, while it might be well-intentioned, the initiatives should consider that not all algorithmic biases are inherently negative, and addressing bias may require more nuanced approaches. Finally, a right to mental privacy, while important for safeguarding sensitive neural data, should consider potential challenges, such as the difficulty of obtaining representative databases and its impact on addressing algorithmic biases, which may hinder innovation and the development of neurotechnologies. For those reasons, instead of new lists of rights, they suggest focusing on interpreting existing human rights and establishing clear legal regulations to address the challenges posed by neurotechnologies (Borbón and Borbón, 2021).

Furthermore, it is important to question whether neurorights are legally necessary considering the aforementioned inconveniences (Borbón and Borbón, 2021; Bublitz, 2022). In general, all national and international legal systems, constitutions, and treaties, already protect freedom, consent, equality, integrity, privacy, and information (Borbón and Borbón, 2021). Having said this, we have suggested that the neurorights proposal should be extensively reviewed, and the scope and limits of each right must be properly analyzed before attempting to incorporate them (Borbón and Borbón, 2021). Another interesting criticism arose against the excessive relativization that could emerge from the proposal of Ienca and Andorno (2017), since the protection of the new neurorights could be sacrificed against, for example, national security. For this reason, it has been suggested that this proposal may be even more regressive and less progressive in terms of human rights (Díaz-Soto and Borbón, 2022).

Instead of new lists of inconvenient and redundant rights, we have proposed the need to move forward with precise laws that address specific challenges, as well as the need to seek international consensus through treaties that establish guidelines, regulations, and prohibitions, but not vague rights.

4 A false dilemma and a settled debate

In this direction, for us, the debate over the necessity to establish new neurorights can be seen as settled, as three distinct positions have emerged: (i) take no action, (ii) create new rights, or (iii) further develop current rights, reform existing laws, and develop international treaties. Unfortunately, in the absence of scientific literature and academic debates, one might think that there is a false dilemma: either to create new lists of rights (neurorights) or face a dystopian future of unregulated neurotechnologies. However, we argue that this presents a false dilemma. The regulation of neurotechnology is not confined to the proposals that suggest that new categories of fundamental rights should be created, as if such regulation, or its absence, were the only possible option. We certainly agree with Bublitz (2023) in suggesting that we must transcend the neurorights debate.

As suggested by Borbón and Borbón (2021) and argued by López-Silva and Madrid (2021), Moreu Carbonell (2021), and Bublitz (2022), instead of general proposals with ambiguous content that amend constitutions with new abstract rights, it could be much more beneficial and effective to create specific and precise legislation to regulate imminent problems based on evidence. For instance, the experience of Argentina and its proposal to reform the Federal Criminal Procedure Code is indicative of the real reforms that might be needed. Rather than creating new, ambiguous, and conceptually complex constitutional rights, bill 0339-D-2022 includes safeguards and requires prior consent and a judicial order before using neurotechnology in criminal proceedings. Those types of initiatives did not require the creation of a new category of fundamental rights but instead provided precise solutions for concrete problems. Therefore, we believe that it is a false dilemma to assert that it would not be possible to regulate human neuroscience without creating new “neurorights.” Legislative proposals and international treaties based on current

human rights also appear to be suitable for addressing the challenges of the neurotechnological future.

5 Conclusions

The intersection between politics and scholarship on the neurorights landscape presents a complex, yet necessary, debate. As countries and international organizations take initial steps to protect citizens' rights, academics caution against hurried legislation without adequate scholarly input. For Bublitz (2024), “it would be unfortunate if international organizations were to support the narrative of the insufficiency of human rights abound in the current discourse about neurorights” (p. 18), since said narrative weakens the rights that, currently, already offer a multi-layered protection that “should be strengthened and reaffirmed” (Bublitz, 2024, p. 19).

Thus, the disparity between politics and scholarship, the former moving in a hasty disconnected manner from the latter, suggests the need for a more integrated dialogue between legislators, scientists, philosophers, jurists, and other key actors. Only through a synthesis of political action informed by reflection and critical commentary from meticulous scholarship, we can hope to adequately address the ethical, legal, and social challenges that neurotechnology and artificial intelligence² present in our time.

Without a doubt, we recognize that the emergence of neurorights proposals has been somewhat positive since it has raised the debate regarding the limits of human neuroscience. Our opinion does not ignore that fact. On the contrary, what we highlight is that creating new lists of redundant rights does not protect nor is it sufficient *per se*. We agree with Andorno and Lavazza (2023) who argue that concrete legal regulations would be required since “the mere formal recognition of such a right would be largely ineffective without concrete legal measures” (p. 2). However, it seems to us that the broad inconveniences of neurorights allow us to conclude: we do not oppose regulation; we oppose bad regulation.

In that sense, the neurorights dialogue requires substantial academic deliberation before creating new lists of problematic rights that might be legally inconvenient, inconsistent, and premature. On the other hand, the promotion of legislative

² It may be interesting to draw a parallel with the emerging debate regarding the regulation of artificial intelligence. Although the vast majority of researchers and politicians recognize the urgent need to regulate, there are no real initiatives to create a new list of specific “AI-rights.” In general, calls for attention have been aimed at pausing the development or restricting public access to generative AI (see Future of Life Institute, 2023). Others, instead of pausing development, advocate for a greater governance approach (Baum et al., 2023). For its part, the EU is discussing an AI act which aims to protect current rights, democracy, and environmental sustainability from high-risk AI with provisions including bans on certain AI applications, safeguards for law enforcement use of biometric identification systems, and fines for non-compliance (European Parliament, 2023). Overall, the debate to regulate AI indicates that, far from a new list of AI-rights being desirable, corporate governance, international treaties, national laws, and soft law regulations are proposed to limit the technological advancement.

reforms, the strengthening of current human rights, and the creation of specific international conventions seems to be a better and more effective solution. For that reason, the dialog must strike a balance between innovation and caution, taking into account that the debate over neurorights requires more robust academic deliberation. Until then, the academic challenge posed against these proposals is a necessary critique that disputes the hype around neurorights.

Author contributions

DB: Conceptualization, Investigation, Resources, Writing – original draft, Writing – review & editing. JR-G: Conceptualization, Investigation, Resources, Writing – review & editing.

Funding

The author(s) declare that no financial support was received for the research, authorship, and/or publication of this article.

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Acknowledgments

An initial version of this paper was submitted for the International Neuroethics Society: Neuroethics Essay Contest. The authors would like to thank Christoph Bublitz for his comments on the paper.

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