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Neurorights as reconceptualized human rights

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Neurorights: novel or reconceptualized rights?

The rise of neuroscience and neurotechnology in the last two decades has brought about a new revolution in biological sciences. As happened with the previous revolution (genetics and genomics), this boom has generated an earthquake of ethical and legal discussions on how to proceed with an adequate regulation that maximizes its advantages and minimizes its risks for human rights. In this context, researchers (see Ienca and Andorno, 2017), taskforces (see Goering et al., 2021), and even interest groups such as the NeuroRights Foundation[1] have contributed in the last 5 years to developing proposals to implement so-called *neurorights*, that is, human rights specifically designed to protect fundamental freedoms potentially at risk due to malicious or abusive uses of neurotechnology.[2] These include cognitive liberty, mental integrity and privacy, psychological continuity, and equal access to cognitive enhancements, among others.

These proposals have had an impact on national regulations such as a constitutional amendment in Chile,[3] a criminal law bill in Argentina,[4] a bioethics law in France,[5] and a Charter of Digital Rights in Spain.[6] They have also reached international organizations, including United Nations (UN)[7] and the Organization of American States (OAS).[8] However, despite this apparent success, there is no lack of critical voices that warn the neurorights proponents to think more slowly about the best way to face possible reforms (Bublitz, 2022; Fins, 2022). One of the key issues in this regard is to distinguish whether neurorights would be *de novo* rights or would rather consist of reconceptualizations of solidly established human rights such as freedom of thought, privacy, non-discrimination, etc.

1 See https://neurorightsfoundation.org/.

2 For an interesting analysis of the implications of coercive brain-reading neurotechnologies for criminal justice purposes in the context of the European framework of human rights, see Ligthart (2022).

3 See https://www.diariooficial.interior.gob.cl/edicionelectronica/index.php?date=25-10-2021&edition=43086-B&v=2.

4 See https://www4.hcdn.gob.ar/dependencias/dsecretaria/Periodo2022/PDF2022/TP2022/0339-D-2022.pdf.

5 See Article 19.I at https://www.legifrance.gouv.fr/jorf/article_jo/JORFARTI000043884401.

6 See https://www.lamoncloa.gob.es/lang/en/presidente/news/Paginas/2021/20210714_digital-rights.aspx.

7 See https://undocs.org/A/HRC/RES/51/3.

8 See https://www.oas.org/en/sla/iajc/themes_recently_concluded_Neuroscience_neurotechnologies_and_human_rights.asp.

An important risk associated to the former possibility is so-called rights inflation, defined by Ienca (2021, p. 9) as

> the objectionable tendency to label everything that is morally desirable as a "human right," [which invites to postulate] that the unjustified proliferation of new rights should be avoided. The unjustified proliferation of human rights is problematic because it may spread skepticism about all human rights, as it dilutes them to mere moral desiderata or purely rhetorical claims. In other words, rights inflation is to be avoided because it dilutes the core idea of human rights and distracts from the central goal of human rights instruments, which is to protect a set of truly fundamental human interests, and not everything that would be desirable or advantageous in an ideal world.

Tasioulas (2019, p. 1181) has eloquently analyzed this problem:

> [A] persistent flaw of contemporary human rights discourse is the tendency to ignore the overarching demand that IHRL [International Human Rights Law] should be regulated by a background morality of human rights. One manifestation of this is the widespread anxiety about human rights inflation. This is not so much the vague concern that there are "too many" human rights, but rather the idea that there is a troubling corrosion of the idea of human rights because the distinction between a universal human interest and a universal moral right is too often overlooked by IHRL.

In what follows, we focus on the possibility of developing neurorights as *reconceptualized* human rights. We first explore what are the possible conditions for the reconceptualization task in the context of legal dogmatics. Next, we provide two examples of existing human rights—i.e., freedom of thought and mental integrity—that could be successfully reconceptualized into neurorights. Finally, we emphasize the work that should be ascribed to regional bodies in the reconceptualization and implementation of neurorights, given their important role as natural bridges between national and global institutions.

Before moving to our analysis of conditions for reconceptualizing, it is relevant to clarify that our preferred approach to human rights here is both *vertical*—regarding the protection obligations of the state toward the individual—and *horizontal*—as it refers to obligations in the relations either between individuals or between companies and individuals. As explained by Knox (2008), while the former is the classical approach in human rights law, there has been increasing advocacy for the latter in the last times:

> What duties, if any, does international human rights law establish for individuals, corporations, and other private actors? For many years, the conventional answer has been that it places duties on states to respect the rights of individuals and creates few or no private duties. In other words, human rights law is aligned vertically, not horizontally. But that view has regularly been challenged. Most recently, in 2003, the United Nations Commission on Human Rights [...], historically the most important incubator of human rights agreements, received two proposed instruments that might appear to realign human rights law horizontally: private actors would have duties as well as rights, and they would owe those duties to society as a whole or to individuals within it. (Knox, 2008, p. 1)

Neurorights are not being an exception in this regard, as demonstrated for example by Principle 8 ("Transparent governance of neurotechnologies") of the OAS Inter-American Declaration of Principles regarding Neuroscience, Neurotechnologies, and Human Rights,[9] according to which

> *States shall ensure that all state and non-state actors involved in the development, use, and/or marketing of neurotechnologies guarantee the transparency of neurotechnological advances. This encompasses not only the way in which neurotechnologies are studied, developed, and applied, and the way they function, but also their compatibility with human rights and those actors' accountability for the processing of neural data in their possession.*

Conditions for reconceptualizing

To address reconceptualization, it is critical to turn to legal dogmatics. In this sense, we must check four possible conditions before reconceptualizing: (a) that there is a contradiction between norms, (b) that norms are redundant, (c) that the current norms are inefficient, or (d) that there are legal gaps. To date, current neurorights advocates have not performed this 4-fold dogmatic exercise; their proposals generally consist of nominal[10] or taxonomic (Ienca, 2021) enumerations of rights.

The *contradiction* (conflict) condition (Caracciolo, 1979) means that two norms provide incompatible solutions to the same fact. It does not seem that the neurorights *de lege ferenda* proposals can contradict the current norms. For instance, protecting brain data (see Ienca et al., 2022) does not contradict the traditional right to privacy. It can therefore be said that the conflict condition "is not the case" (to use the well-known Wittgenstein's words in his *Tractatus Logico-Philosophicus*).[11]

Redundancy (Golden, 2016) is characterized by the fact that the system stipulates an excess of normative solutions for the same facts. The rise of neurotechnology is bringing, and will prospectively bring, cases that will differ in important aspects from rights violations to which we are (unfortunately) accustomed. Consider, for example, the novel scenario of possible malicious *brainjacking* of neural implants (Pugh et al., 2018), which can produce extremely harmful effects on brain circuitry that were unimaginable until recently. Redundancy is also "not the case."

The *inefficiency* condition (Adams, 2019) would imply that current human rights are not fulfilling the aim of protection for which they were created. In view of the successful position as an international ethical-legal standard that the Universal Declaration

9 See https://www.oas.org/en/sla/iajc/docs/CJI-RES_281_CII-O-23_corr1_ENG.pdf (p. 13).

10 See https://neurorightsfoundation.org/mission/.

11 See https://www.wittgensteinproject.org/w/index.php?title=Tractatus_Logico-Philosophicus_(English).

of Human Rights (UDHR) has held for nearly 75 years, it is obvious that inefficiency "is not the case" and that neurorights could complement but never replace the incalculable value of present human rights.

Finally, the *legal gaps* condition (Irti, 2014) is met when there is a lack of normative solutions for a certain fact. This seems to be the case according to the NeuroRights Foundation in view of their recent report *International Human Rights Protection Gaps in the Age of Neurotechnology*.[12] If it is verified that these gaps exist for possible scenarios of violation of fundamental freedoms in neurotechnological contexts, then the UDHR would be justified in saying that "it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law."[13]

It is important to elucidate how the fourth condition is to be interpreted. If by gaps is meant, *stricto sensu*, the absolute inexistence of pre-existing norms that serve as reference to correlate facts and legal solutions, then gaps (again) are "not the case." However, reconceptualization is certainly compatible with another interpretation of the gaps condition: it is possible to resignify, update, or expand the scope of the pre-existing solutions so that they cover novel, neurotechnological challenges. Gaps, thus understood, *would be the case*. Be that as it may, this progressive interpretation of neurorights would be reinforced if they met the quality criteria that Alston (1984) designed in principle for new human rights. To meet these criteria, neurorights would need to:

> —reflect a fundamentally important social value;
>
> —be relevant, inevitably to varying degrees, throughout a world of diverse value systems;
>
> —be eligible for recognition on the grounds that it is an interpretation of UN Charter obligations, a reflection of customary law rules or a formulation that is declaratory of general principles of law;
>
> —be consistent with, but not merely repetitive of, the existing body of international human rights law;
>
> —be capable of achieving a very high degree of international consensus;
>
> —be compatible or at least not clearly incompatible with the general practice of states; and
>
> —be sufficiently precise as to give rise to identifiable rights and obligations.

Alston (1984, p. 615).[14]

Two examples: freedom of thought and mental integrity

A good example of a right subject to eventual reconceptualization is *freedom of thought*. As can be verified in Article 18 of the UDHR (see text footnote 13) and in international human rights treaties (e.g., Article 13 of the American convention[15] and Article 9 of the European convention[16]), this right focuses on protecting the external manifestations of thought, such as conveying one's beliefs or changing one's religion. A reasonable path for reconceptualization would be to explicitly include also its *internalizations*, that is, thought itself, as recently suggested by Ienca (2021). This protection of the internal dimension of thought has often been called *cognitive liberty*, which was defined by Sententia (2004, p. 223) as

> every person's fundamental right to think independently, to use the full spectrum of his or her mind, and to have autonomy over his or her own brain chemistry. Cognitive liberty concerns the ethics and legality of safeguarding one's own thought processes, and by necessity, one's electrochemical brain states.

Other names proposed with purposes similar to those of cognitive liberty have been "mental self-determination" (Bublitz and Merkel, 2014), "mental freedom" (García-López et al., 2021), and—as proposed by the NeuroRights Foundation—"free will (see text footnote 10").[17] To what extent do all these names denote the same meanings, and how are they related to each other? Even though answers will require further development, some scholars have begun to delve into the matter (Muñoz et al., 2023).

Another interesting case of eventual reconceptualization is *mental integrity*. This right is usually closely linked to the right to mental health—as in Article 3 of the Charter of Fundamental Rights of the European Union[18]—or the right not to be treated in a cruel, degrading, or torturing manner—as in Article 5 of the American Convention on Human Rights (see text footnote 15). In order to expand this protection, Ienca and Andorno (2017, p. 18) have proposed that mental integrity also includes

> the right of all individuals to protect their mental dimension from potential harm. This reconceptualized right should provide a specific normative protection from potential neurotechnology-enabled interventions involving the unauthorized alteration of a person's neural computation and potentially resulting in direct harm to the victim.

Lavazza and Giorgi (2023) have gone further by suggesting that privacy be also included as an essential object of protection within the right to mental integrity. Understood in this way, mental integrity would be a quite comprehensive right consisting of "the individual's mastery of [their] mental states and [their] brain data so that, without [their] consent, no one can read, spread, or alter such states and data in order to condition the individual in any way" (Lavazza, 2018, p. 4).

12 See https://ntc.columbia.edu/wp-content/uploads/2022/05/NeurorightsFoundationPUBLICAnalysis5.6.22.pdf.

13 See Paragraph 3 of the Preamble at https://www.un.org/en/about-us/universal-declaration-of-human-rights.

14 Bublitz (2022) has recently argued that neurorights do not meet these criteria when conceived as *new* human rights.

15 See https://www.oas.org/dil/treaties_B-32_American_Convention_on_Human_Rights.htm.

16 See https://www.coe.int/en/web/compass/european-convention-on-human-rights.

17 For a critical view of the use of the term "free will" as a neuroright, see Muñoz (2019).

18 See https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12012P/TXT.

The role of regional bodies in reconceptualization and neuroprotection

In our view, discussions aimed at designing global recommendations on "neuroprotection" should actively include relevant representatives from *regional bodies* (e.g., OAS, regional courts of human rights). This would also mean integrating them as important actors in reconceptualization efforts.

Importantly, regional bodies can bidirectionally bridge national and global stances. First, they can collect and escalate regional consensuses to interregional debates using a bottom-up approach. The Special Procedures of the UN Human Rights Council[19] seem ideal to conduct these debates aimed at reaching interregional consensus. In this regard, two pioneering regional documents may inspire the UN's efforts to assess "the impact, opportunities and challenges of neurotechnology with regard to the promotion and protection of all human rights" (see text footnote 7): the Inter-American Declaration of Principles Regarding Neuroscience, Neurotechnologies, and Human Rights by the OAS[20] and the Model Law on Neurorights by the Latin American Parliament.[21]

Second, from a top-down perspective, regional commissions—i.e., African Commission on Human and Peoples' Rights, Asian Human Rights Commission, Inter-American Commission on Human Rights—and courts—i.e., African Court on Human and Peoples' Rights, European Court of Human Rights, Inter-American Court of Human Rights—have traditionally coordinated and enforced human rights treaties. Once an international regulatory framework on neuroprotection is established, the combined experience of both parties would make them ideal candidates to effectively protect neurorights against potential breaches by the member states.

Moreover, regional bodies play a critical role in bringing together shared norms and values. Integrating these bodies into global discussions at the UN will facilitate equitable representation of diverse cultural sensibilities and a symmetrical implementation of neurorights in our multilateral world (see Herrera-Ferrá et al., 2023).

Finally, it is of utmost importance to determine which professionals must lead these tasks in the search for conceptual agreements at the national, regional, and global levels, although an interdisciplinary approach seems essential. Close collaboration between scholars (including specialists in language and semiotics), stakeholders, lawmakers, and policymakers from several countries would probably be critical. Once fundamental agreements are reached, it will be the job of the judges to ensure their enforcement.

19 See https://www.ohchr.org/en/special-procedures-human-rights-council.

20 See https://www.oas.org/en/sla/iajc/themes_recently_concluded_Neuroscience_neurotechnologies_and_human_rights.asp.

21 See https://parlatino.org/wp-content/uploads/2017/09/leym-neuroderechos-7-3-2023.pdf.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

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