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Freedom of Thought: Absolute Protection of Mental Privacy and Mental Integrity?

Considering the Case of Neurotechnology in Criminal Justice

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1. Introduction

In his annual thematic report of 2021, the then UN Special Rapporteur on Freedom of Religion or Belief, Ahmed Shaheed, paid explicit and comprehensive attention to the right to freedom of thought (RFoT).[1] The report is the first UN document of recent times to consider the content and scope of the RFoT pursuant to Article 18 of the International Covenant on Civil and Political Rights. The Rapporteur considers several possible violations of the RFoT that call for urgent attention from policymakers. One of those concerns the use of modern neurotechnologies, which 'pose dilemmas about how to protect mental privacy, how to protect thoughts from impermissible manipulation and modification, and how to prevent these technologies from being used and abused to punish real or inferred thoughts'.[2]

These concerns, raised by neurotechnology, appeal to the three substantive freedoms that are often attributed to the RFoT: (1) that one is not compelled to reveal one's thoughts, (2) that one's thoughts are not impermissibly altered, and (3) that one is not sanctioned for one's thoughts.[3] According to the Special Rapporteur, the first freedom implies that *mental privacy* is a 'core attribute' of the RFoT.[4] The second – the freedom against non-consensual alternations of one's thoughts – relates closely to the right to *mental integrity*,[5] which can be defined, on a minimalist conception, as a right against (certain kinds of) non-consensual interferences with one's mind.[6]

In recent discussions over the RFoT, it has been emphasised that for an adequate understanding, development, and application of the right, one should consider how the RFoT relates to or complements

[1] *Report on the Freedom of Thought*, 5 October 2021, A/76/380 (UN Report 2021).

[2] UN Special Rapporteur on Freedom of Religion or Belief, Report on the Freedom of Thought, 5 October 2021, A/76/380 (henceforth: UN Report 2021), at 94.

[3] UN Report 2021; J.C. Bublitz, 'Freedom of Thought as an International Human Right', in M. Blitz & J.C. Bublitz, *The Law and Ethics of Freedom of Thought, Vol. 1* (Palgrave MacMillan 2021); B. Vermeulen & M. Roosmalen, 'Freedom of Thought, Conscience and Religion', in P. van Dijk et al. (eds.), *Theory and Practice of the European Convention on Human Rights*, (Intersentia 2018).

[4] UN Report 2021, par. 26. Also S. Alegre, *Freedom to Think* (Atlantic Books 2022), p. 27.

[5] UN Report 2021, at 39; Bublitz 2021, p. 93; S. Ligthart et al., 'Minding rights: Mapping Ethical and Legal Foundations of 'Neurorights'', *Camb. Q. Healthc.* 2023 (online first), p. 9.

[6] T. Douglas & L. Forsberg, 'Three Rationales for a Legal Right to Mental Integrity', in: S. Ligthart et al. (eds.), *Neurolaw* (Palgrave MacMillan 2021); Ligthart et al. 2023, p. 6.

other rights, such as the right to mental privacy and mental integrity.[7] In this chapter, we consider the interrelationship between the RFoT and the protection of mental privacy and mental integrity. We explore how the *absolute* protection offered by the RFoT relates to the *qualified* protection of mental privacy and mental integrity offered by the right to respect for private life.

We will pursue our analysis by considering the case of employing emerging neurotechnology in the context of criminal justice. We focus on neurotechnology because it has the unique ability to *monitor* the brain in a way that enables the drawing of inferences about inner mental states, as well as the ability to *modify* the brain so as to influence certain mental states and, ultimately, change behaviour.[8] Clearly, monitoring and modifying mental states without valid consent raises concerns about human rights – particularly regarding the RFoT, the right to mental privacy and to mental integrity.[9]

We focus on the context of criminal justice as this is arguably a context where *non-consensual* use of neurotechnology might be considered and where infringements of human rights might be justified, as they often serve pressing state interests such as detecting and preventing severe crimes. Pressure or even full-blown coercion are commonly used in criminal law to yield personal information and to change an individual's mind and behaviour. One could think, for example, of compulsory blood tests for DNA analysis and requiring convicted offenders to participate in a sex offender treatment programme, which could even involve direct modification of brain chemistry through anti-libidinal drugs.[10] For these reasons, we take neurotechnology in criminal justice as a central theme of this chapter. Whereas our primary focus is on the European Convention on Human Rights (ECHR), some parts of the analysis may equally apply to other human rights instruments.

2. Neurotechnology in Criminal Justice: Mental Privacy, Mental Integrity, and Freedom of Thought

2.1 Neurotechnology in Criminal Justice

The promises and perils of neurotechnology in criminal justice have been under debate for over a decade.[11] Generally, two types of neurotechnology receive special attention. First, neurotechnology that yields information from the brain, sometimes referred to as 'brain-reading'. Examples are functional

[7] S. Ligthart et al., 'Rethinking the Right to Freedom of Thought', *HRLR* 2022, 22; P. O'Callaghan et al., 'The right to freedom of thought: an interdisciplinary analysis of the UN special rapporteur's report on freedom of thought', *Int. J. Hum. Rights* 2023, https://doi.org/10.1080/13642987.2023.2227100.

[8] N. Farahany, *The Battle for Your Brain* (St. Martin's Press 2023).

[9] J.C. Bublitz, 'Freedom of Thought in the Age of Neuroscience', *ARSP* 2014, 100, p. 1-25; S. Ligthart, *Coercive Brain-Reading in Criminal Justice* (CUP 2022); E. Shaw, 'Neuroscience, Criminal Sentencing, and Human Rights', *Wm. & Mary L. Rev.* 2022, 63.

[10] L. Forsberg, 'Anti-libidinal interventions and the law', *HRLR* 2021, 21

[11] See, e.g., S.J. Morse & A.L. Roskies (eds.), *A primer on criminal law and neuroscience* (OUP 2013); J. Ryberg, *Neurointerventions, Crime, and Punishment* (OUP 2020).

magnetic resonance imaging (fMRI), single-photon emission computed tomography (SPECT), and electroencephalography (EEG). Among other things, these techniques have the potential to be used for memory detection and the prediction of risks of recidivism.[12] The second type of neurotechnology that could be conducive to criminal justice are techniques that change or influence the brain, mental states and, ultimately, behaviour. These are often referred to as 'neurointerventions', which can be defined as interventions that exert a physical, chemical or biological effect on the brain in order to diminish the likelihood of criminal offending.[13] Examples of conceivable applications are deep brain stimulation (DBS) to reduce sexual drive (targeted towards sex offenders) and transcranial direct current stimulation (tDCS) to reduce aggressiveness (targeted towards violent criminals).[14]

In medicine, patients normally *consent* to an fMRI or DBS, e.g., to diagnose traumatic brain injury or to treat Parkinson's disease. However, in criminal justice, defendants and convicted offenders could often be reluctant to cooperate voluntarily with neurotechnology, and there is a history of imposing other interventions, such as incarceration and psychological rehabilitation programmes, involuntarily. This has prompted lawyers and ethicists to examine the possibility of *non-consensual* employment of neurotechnology in criminal law.[15] Clearly, the non-consensual use of neurotechnology raises a variety of normative concerns, also in view of human rights. These include, but are not limited to, concerns about mental privacy, mental integrity and, relatedly, the RFoT. We briefly consider these below.

2.2 Mental privacy and mental integrity; Article 8 ECHR

Collecting personal information about people's brains and mental states, without their consent, is likely to interfere with the person's mental privacy. Different interpretations of mental privacy have been suggested.[16] Here, we understand a right to mental privacy in a broad sense, as a right not to reveal any personal mental state.[17] How such a right could best be guaranteed within human rights law is yet

[12] See, e.g., J.P. Rosenfeld (ed.), *Detecting Concealed Information and Deception* (Academic press 2018); C. Delfin et al., 'Prediction of recidivism in a long-term follow-up of forensic psychiatric patients', *PLoS ONE* 2019.

[13] D. Birks & T. Douglas (eds.), *Treatment for Crime* (OUP 2018), p. 2.

[14] J. Fuss et al., 'Deep brain stimulation to reduce sexual drive', *J Psychiatry Neurosci* 2015, 40(6), p. 429-431; C. Sergiou et al., 'Transcranial direct current stimulation targeting the ventromedial prefrontal cortex reduces reactive aggression and modulates electrophysiological responses in a forensic population', *Biological Psychiatry: CNNI* 2022, 7(1), 95-107.

[15] E.g., Ryberg 2020; Ligthart 2022.

[16] M. Ienca & R. Andorno, 'Towards new human rights in the age of neuroscience and neurotechnology', *LSSP* 2017, 13(5), p. 1-27; S. Goering et al., 'Recommendations for Responsible Development and Application of Neurotechnologies', *Neuroethics* 2021, 14; A. Wajnerman Paz, 'Is Mental Privacy a Component of Personal Identity?', *Front. Hum. Neurosci*. 2021, doi.org/10.3389/fnhum.2021.773441.

[17] S. Ligthart, 'Mental Privacy as Part of the Human Right to Freedom of Thought?', in M. Blitz & J.C. Bublitz (eds.), *The Law and Ethics of Freedom of Thought Vol. 2* (MacMillan 2023, preprint).

unclear. Some have argued for a standalone human right to mental privacy,[18] while others contend that the right is already covered by the general right to privacy and/or by the RFoT.[19]

In the European context, Article 8 ECHR protects a qualified right to respect for one's private life. Among other things, this right covers the protection of 'personal data'. The European Court of Human Rights (ECtHR) defines personal data as 'any information that relates to an identified or identifiable individual'.[20] In the ECtHR's view, protecting personal data is of fundamental importance for the enjoyment of the right to respect for private life. Therefore, Article 8 comprises 'the right to a form of informational self-determination, allowing individuals to rely on their right to privacy as regards data which, albeit neutral, are collected, processed and disseminated collectively and in such a form or manner that their Article 8 rights may be engaged.'[21]

Examples of infringements of Article 8 by interfering with people's personal data in the course of criminal justice concern the taking and retaining of a photograph on arrest, the taking of cellular samples for DNA analysis, and the collection of personal information via a GPS tracking system.[22] Likewise, it has been argued that non-consensual 'brain-reading' with neurotechnology is likely to infringe the right to respect for private life, as it will yield personal brain data that allows for the drawing of inferences about private mental states and emotions.[23]

Furthermore, *changing* people's brains and mental faculties through neurotechnology without valid consent has the potential to infringe a right to mental integrity.[24] A right to mental integrity is also protected by the right to respect for private life of Article 8 ECHR.[25] According to the ECtHR, Article 8 covers a right to physical and psychological integrity.[26] Sometimes, the Court also refers to 'mental' and 'moral' integrity but the case law suggests that psychological, mental, and moral integrity are interchangeable terms.[27] In general, the right to *physical* integrity is a right against non-consensual interferences with one's body which the ECtHR conceives 'the most intimate aspect of private life.'[28] The right encompasses a broad range of physical intrusions, ranging from minor non-consensual medical interventions such as taking saliva, blood, urine, and obliging an X-ray, to physical searches by the police, gynaecological examination in prison, and rape.[29]

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[18] Ienca & Andorno 2017.

[19] Next to the general right to privacy, the protection of mental privacy is also likely to be covered by the right to freedom of expression, as this right also guarantees the negative freedom *not* to express ourselves: Ligthart 2023.

[20] Magyar Helsinki Bizottság v Hungary, 18030/11, 8 November 2016, par. 192.

[21] Satakunnan Markkinapörssi Oy and Satamedia Oy v. Finland, 931/13, 27 June 2017, 137.

[22] Gaughran v. UK, 45245/15, 3 February 2020, par. 70, 63; Dragan Petrović v. Serbia, 75229/10, 14 April 2020, par. 69, 79; Uzun v. Germany, 35623/05, 2 September 2010.

[23] Ligthart 2022.

[24] J.C. Bublitz, '"The Soul is in the Prison of the Body"', in Birks & Douglas 2018, p. 303.

[25] See also Article 3(1) of the European Charter on Fundamental Rights and Article 1 of the Oviedo Convention.

[26] Bédat v. Switzerland, 56925/08, 29 March 2016, par 72.

[27] See also K. de Vries, 'Right to Respect for Private and Family Life', in Van Dijk et al 2018, p. 690.

[28] Y.F. v. Turkey, 24209/94, 22 July 2003, par. 33.

[29] See, with further references, Ligthart 2022, p. 72.

The contours of the right to *mental* integrity are less clear, though, as the ECtHR usually refrains from providing further definition.[30] But we do know that the right covers, at least, the protection of mental health and mental stability as a crucial part of private life.[31] Currently there is a debate on how to interpret and develop the right to mental integrity, also in view of emerging neurotechnology. For example, one could understand the right in a narrow sense, as basically a right against interferences with one's mental health, or, rather, in a broader sense, as a right to mental self-determination – that is, a right to control over the content of one's own mental life.[32] Whereas the former understanding may align best with the application of the right in the ECtHR's case law so far, the latter may well evolve into the dominant legal interpretation in the near future. For example, the Committee of Bioethics of the Council of Europe has argued that emerging technologies raise the prospect of increased understanding, monitoring, and control of the human brain, raising novel questions about physical and mental integrity 'understood as the ability of individuals to exercise control over what happens to them with regard to, inter alia, their body, their mental state, and the related personal data.'[33] In this interpretation, the right to mental integrity is not confined to issues of mental health understood in a narrow sense but guarantees individuals to exercise control over what happens to their mental states more broadly.[34] In such an understanding, the right will indisputably be infringed when the State employs neurointerventions on convicted offenders without their consent, modifying their brains and mental faculties.

Importantly, infringements of the right to respect for private life – which protects both mental privacy and mental integrity – need not always result in a rights violation. They can be justified based on Article 8(2) ECHR, when necessary for and proportionate to a legitimate interest, such as prosecuting and preventing crime.[35]

2.3 Freedom of Thought; Article 9 ECHR

Although the precise meaning and scope of the RFoT are as yet unclear, there is agreement that the right prevents States from interfering with the innermost sphere of individuals by using inquisitorial methods to *discover* a person's thoughts and by *manipulating* thoughts, e.g., through indoctrination or

[30] De Vries 2018, p. 690.

[31] Bensaid v. UK, 44599/98, 6 February 2001, par. 47.

[32] J.C. Bublitz, 'The Nascent Right to Psychological Integrity and Mental Self-Determination', in A. von Arnauld, K. von der Decken & M. Susi (eds.), *The Cambridge Handbook of New Human Rights* (CUP 2020); J. Marshall, *Personal Freedom through Human Rights Law?* (Martinus Nijhoff 2009).

[33] *Strategic Action Plan on Human Rights and Technologies in Biomedicine (2020-2025)*, Committee on Bioethics (19-21 November 2019), par. 21-22.

[34] Cf. E. Dore-Horgan & T. Douglas, 'Thinking What We Want', in Blitz & Bublitz (forthcoming).

[35] Next to the qualified right to respect for private life, the protection of mental integrity is also covered by the absolute prohibition of torture, inhuman and degrading treatment, insofar it prohibits the infliction of severe mental suffering, which we will consider in section 3.

brainwashing.[36] Considering the potential of neurotechnological lie and memory detection in criminal justice, Bublitz finds it 'hard to imagine a better paradigmatic case against which freedom of thought should provide protection.'[37] Regarding the use of non-consensual neurointerventions in criminal justice, Bublitz has argued that some of them will infringe the absolute RFoT and are therefore 'prohibited across the board.'[38]

Whether and which types of non-consensual brain-reading and neurointerventions will infringe the RFoT, will likely depend on what kind of mental states or functions they affect and whether they qualify as a 'thought' within the meaning of Article 9 ECHR. The answer to this question also depends on how to interpret 'thoughts' in this regard. Some defend a limited understanding, only encompassing thoughts that attain a certain threshold.[39] Others have argued for a broad interpretation, so that the RFoT protects basically any thought about anything, as well as thinking as a mental process.[40] A broad interpretation seems to be endorsed by the UN Special Rapporteur on Freedom of Religion and Belief.[41] In such an understanding, it is likely that at least some forms of brain-reading and neurointerventions have the potential to disclose and alter 'thoughts' and could, therefore, infringe the RFoT. One could think of neurotechnological memory detection and brain stimulation to change a person's antisocial attitudes towards criminality.[42]

If one would follow such a broad interpretation – as we will do for the sake of argument in this chapter – the RFoT is likely to overlap considerably with the right to respect for private life pursuant to Article 8 ECHR. Both will then cover, at least in part, the protection of mental privacy and mental integrity.[43] Both will protect against the non-consensual disclosure and manipulation of a person's private 'thoughts'. Interestingly, as mentioned above, the protection of mental privacy and mental integrity under Article 8 ECHR is *qualified*; infringements can sometimes be justified. Meanwhile, the RFoT pursuant to Article 9 ECHR is typically conceived of as an *absolute* right; infringements cannot be justified but will *ipso facto* imply a rights violation. As a consequence, if one would accept that the RFoT has a broad scope and covers, to some extent, the protection of mental privacy and mental integrity, then these notions will receive considerably stronger protection under Article 9 than under Article 8. This raises the question: how should the law distinguish between the application of either Article 8 or 9 ECHR in cases where they overlap? What could be a criterion to determine which

[36] P. O'Callaghan & B. Shiner, 'The Right to Freedom of Thought in the European Convention of Human Rights', *Eur. J. Comp. Law Gov* 2021, 8(2-3), p. 112-145; B. Vermeulen & M. Roosmalen, 'Freedom of Thought, Conscience and Religion', in Van Dijk et al. 2018, p. 738-739; UN Report 2021.
[37] Bublitz 2014, p. 8.
[38] Bubliz 2018, p. 301.
[39] Ligthart 2022, 2023.
[40] E.g. Bublitz 2021; Alegre 2022. See also McCarthy-Jones and Walmsley in this volume.
[41] UN Report 2021.
[42] Cf. UN Report 2021, par. 68-82.
[43] UN Report 2021, par. 26, 39; Ligthart et al. 2022, p. 6; Alegre 2022, p. 27; Ligthart 2023.

interferences with mental privacy and mental integrity engage the absolute RFoT over and above the qualified right to respect for private life?[44] We explore this question in the next section.

3. Towards a Threshold for Absolute Protection of Mental Privacy and Mental Integrity?

If the protection of mental privacy and integrity will be covered by both the absolute RFoT and the qualified right to respect for private life, a criterion will be needed to determine which interferences should engage the absolute protection from Article 9 ECHR. A similar issue has arisen regarding the prohibition of torture, inhuman and degrading treatment of Article 3 ECHR. This provision offers absolute protection to our bodily and mental integrity from grave interferences, in addition to the qualified protection of these notions offered by the right to respect for private life.[45] For example, the right to mental integrity under Article 3 seems limited to a right against the infliction of severe forms of *mental suffering*, such as serious distress, anguish, and anxiety.

In order to determine the applicability of the absolute prohibition of torture, inhuman and degrading treatment, over and above the qualified right to respect for private life, the ECtHR employs a general threshold: Article 3 only applies to treatment attaining 'the minimum level of severity'. Although the prohibition of ill-treatment is absolute, the severity threshold is typically relative.[46] It depends on all circumstances of the case. These include certain *characteristics of the treatment* (like its physical and mental effects and the manner and method of its execution), *characteristics of the victim* (like one's sex, age and state of health), and the *context* in which the treatment was imposed (such as in an atmosphere of heightened tension and emotions).[47]

Whereas the ECtHR has developed a legal mechanism to distinguish absolute from qualified protection of bodily and mental integrity under Article 3 and 8 ECHR, a similar theory or criterion is lacking for the allocation of absolute and qualified protection of mental integrity and mental privacy across Articles 8 and 9 ECHR. In this section, we explore whether and how the three general factors used in relation to Article 3 – characteristics of the treatment, characteristics of the victim, and context – could be helpful to determine the applicability of the absolute RFoT of Article 9.

Characteristics of the treatment

[44] Ligthart et al. 2022, p. 8-9.

[45] M. Nowak, 'What's in a name? The prohibitions on torture and ill treatment today', in: C. Gearty & C. Douzinas (eds.), *The Cambridge Companion to Human Rights Law* (CUP 2012); S. Michalowski, 'Critical Reflections on the Need for a Right to Mental Self-Determination', in Von Arnauld, Von der Decken & Susi 2020, p. 408.

[46] Kudła v. Poland, 30210/96, 26 October 2000, par. 91

[47] Council of Europe, *Guide on Article 3 ECHR*, 2022, p. 6-7; Khlaifia and Others v. Italy, 16483/12, 15 December 2016, par. 160.

As mentioned above, for the assessment of the minimum level of severity under Article 3 ECHR, the ECtHR takes account of the physical and mental effects of a treatment and the manner and method of its execution. When there is serious mental suffering, for instance, the minimum level of severity is likely to be reached so that Article 3 applies. Could the mental effects and the method of imposing them also be relevant to the applicability of the absolute RFoT?

First, it is arguable that not just any unsolicited mental effect should engage the absolute RFoT, but that this absolute protection should only apply to the imposition of 'severe' or 'significant' mental effects. Obviously, this raises the question which mental effects will qualify as 'severe' or 'significant'. Regarding the protection of mental privacy, one of us has recently suggested taking into account the *content of the mental state* that has been disclosed.[48] The significance of the personal interests in not revealing certain types of mental content may be a convincing reason to guarantee their secrecy in an absolute way. For example, one could imagine that the significance of the interest in not revealing one's political opinions or religious adherence could justify absolute protection by the RFoT over and above the qualified protection from the right to privacy.[49] The significance of the personal interest in not revealing one's sexual preferences may be another example.[50] At the same time, the personal interest in having one's mental privacy respected may be weaker in relation to more trivial mental states, such as a person's memory about a specific event, like the lovely sunset one experienced in Italy last summer, or the car accident one witnessed yesterday.[51]

Likewise, the content of a mental state may also be relevant to distinguish absolute from qualified protection of mental integrity. It seems at least arguable that, generally, people have strong personal interests in their political ideas or sexual orientation not being manipulated by others. Meanwhile, the personal interest seems weaker regarding the manipulation of one's craving for chocolate or one's intention to buy new shoes, for instance. Whereas our political opinions and sexual preferences may warrant absolute protection, our cravings and intentions to buy food and other products may not.

Interestingly, in a way, the type of mental content seems a relevant factor already to the applicability of the absolute RFoT. When outlining the 'general principles' in cases on Article 9 ECHR, the Grand Chamber of the ECtHR has formulated a general threshold for the qualification as either a thought, conviction, or religion as protected by this provision:

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[48] Ligthart 2023.

[49] Cf. Sinan Işik v. Turkey, 21924/05, 2 February 2010, par. 42; Georgian Labour Party v. Georgia, 9103/04, 8 July 2008, par. 120.

[50] The significance of the personal interest in not revealing certain mental content may well depend on the context wherein one's thoughts are to be disclosed. For example, the personal interest in not revealing one's homosexual desires may depend on the county one lives in (see also below).

[51] Interestingly, the ECtHR approaches legal duties of witnesses to disclose their memories of a particular event, like a criminal offence, under the *qualified* right to freedom of expression rather than under the *absolute* RFoT: Wanner v. Germany, 26892/12, 23 October 2018. Cf. the obligation to share certain knowledge through a census form, which infringes Article 8 but can be justified: X. v. UK, 9702/82, 6 October 1982.

> 'The Court reiterates that, as guaranteed by Article 9 of the Convention, the right to freedom of thought, conscience and religion denotes only those views that attain a certain level of cogency, seriousness, cohesion and importance.'[52]

Apparently, Article 9 does not provide absolute protection to just any kind of thought. It only covers thoughts that attain a certain level of cogency, seriousness, cohesion, and importance. Whereas most political and philosophical ideas will likely qualify as such, less significant mental states, such as a memory of yesterday's car accident or an intention to buy a lawnmower may well fail attaining this threshold. Meanwhile, apart from the fact that not all opinions and convictions fall within the scope of Article 9 ECHR,[53] the ECtHR has hardly provided any guidance on how to understand and apply the objective requirements of cogency, seriousness, cohesion and importance.[54] Perhaps, further elaboration of these requirements can provide more detail about which effects on mental privacy and integrity could justify absolute protection from the RFoT.[55]

Another potentially relevant characteristic of mind-interfering treatments could relate to the *method* of revealing or changing a person's mental states. For example, although (compulsory) education clearly affects a variety of mental states and often has a lifelong impact on a person's thinking and development, we do not normally perceive education as infringing the absolute RFoT. This may be because we feel education does not restrict our *freedom* to think, but rather enhances it, by teaching us to reason and think critically and reflectively. However, this might be different if education does not facilitate free thinking but rather reduces people's ability to control, independently, what they think, feel, and belief, e.g., through indoctrination or brainwashing.

According to Bublitz, the level of self-control a mental influence leaves to a person over her own thoughts should be a relevant consideration to the applicability of the RFoT, as interferences with the *freedom* of thought should *undermine* or *bypass control* over a person's thoughts and thinking. According to Bublitz: 'This is a necessary, but not a sufficient condition, and it forms part of a test of infringement: Does an intervention respect the other as a free and self-controlled thinker; or does it undermine or bypass control? The latter infringes freedom of thought, the former may not'.[56]

For example, people have almost no control over mind-altering interventions that target mental states without psychological mediation, such as psychoactive drugs and DBS. Because changing thoughts through such interventions seems to completely undermine the *freedom* to think, they may possibly justify absolute protection by the RFoT. The same might be true regarding subliminal

[52] İzzettin Doğan and others v. Turkey, 62649/10, 26 April 2016, par. 68.
[53] E.g. Vavřička and others v. Czech Republic, 47621/13, 8 April 2021, par. 333-338.
[54] T. Wolff, 'Cogency, Seriousness, Cohesion and Importance', *Oxf. J. Law Relig.* 2023.
[55] Cf. Keese and Leiser in this volume, p. X.
[56] Bublitz 2021, p. 82. See also J.C. Bublitz, 'Why means matter', in N.A. Vincent, T. Nadelhoffer & A. McCay (eds), *Neurointerventions and the law* (OUP 2020).

advertisement and hypnosis, as these methods of manipulating thoughts are often considered to bypass a person's control over the targeted mental states. If we accept that undermining or bypassing control is a relevant factor to determine the applicability of the RFoT, this could imply that manipulating a criminal offender's perception of aggressiveness through DBS or tDCS may engage absolute protection, whereas changing these perceptions through compulsory cognitive behavioural therapy may not.

Regarding the allocation of absolute and qualified protection of mental privacy, a similar line of reasoning is conceivable.[57] Typically, Article 9(1) ECHR covers the protection of unexpressed thoughts in the *forum internum*, which is prohibited in absolute terms. Meanwhile, the manifestation of thoughts in the *forum externum* does not typically engage the absolute protection of Article 9(1) ECHR. Rather, this will be covered by the qualified rights to freedom of expression and to respect for private life.[58] In this light, it is arguable that revealing a person's unexpressed personal views through means that completely bypass the person's self-control – not involving any form of expression or manifestation whatsoever – typically interferes with the *forum internum* and thus engages absolute protection from the RFoT.[59] Examples of such means are (some types of) brain scans and brain-computer-interfaces.

Meanwhile, when the disclosure of a person's inner thoughts takes place through methods that do involve the person expressing or otherwise manifesting her thoughts in the outside world, e.g., through speech or writing, such means of disclosing thoughts may be considered to exceed the *forum internum* protection of Article 9 ECHR. Rather, they would typically engage the qualified protection of mental privacy in the *forum externum* covered by Article 8 and 10 ECHR.[60] Such qualified protection of mental privacy could be rationalised because expressing and manifesting one's thoughts does not completely undermine or bypass the person's self-control over her thoughts and thinking. You will always retain the choice to speak or not to speak, to write or not to write, and to conceal your actual mental states that will remain, a by and large, a mystery to others as long as you do not, genuinely, express them, for example by faking or deception ('Yes, this dinner you cooked is absolutely delicious!').

To some extent, this approach to mental privacy gets support from the case law of the ECtHR. For example, complaints have been brought to the Court about obligations to reveal, through indirect means, one's religious adherence, e.g., by taking a religious oath in court, by filling in a wage-tax form or by providing personal information to receive an identity card.[61] Typically, the ECtHR considers these

[57] Ligthart 2023.

[58] And possibly some other civil and political rights, such as the right to freedom of assembly of Article 11 ECHR.

[59] Cf. O'Callaghan and Shiner 2021, p. 135: "only when thoughts are unmanifested should they be deserving of absolute protection." See also McCarthy-Jones and Walmsley in this volume, who find this approach too narrow.

[60] Cf. Folgerø and Others v. Norway, 15472/02, 29 June 2007, par. 98; Wanner v. Germany.

[61] Dimitras and others v. Greece, 42837/06, 3237/07, 3269/07, 35793/07 and 6099/08, 3 June 2010; Alexandridis v. Greece, 19516/06, 21 February 2008; Wasmuth v. Germany, 12884/03, 17 February 2011; Sinan Işik v. Turkey, 21924/05, 2 February 2010.

complaints under the qualified freedom to *manifest* religion and belief. In general terms, to Court holds that:

> 'the right to manifest one's religion or beliefs also has a negative aspect, namely an individual's right not to be obliged to disclose his or her religion or beliefs and not to be obliged to act in such a way that it is possible to conclude that he or she holds – or does not hold – such beliefs.'[62]

Likewise, we would argue that the obligation to speak, write or act so as to reveal certain thoughts, like giving testimony in court, should typically engage qualified protection in the *forum externum*, covered by the right to freedom of non-expression and the right to respect for private life.[63] Meanwhile, the paradigmatic violation of the RFoT by compelling a person to reveal her thoughts by way of torture, can be considered to engage absolute protection as such means of disclosing thoughts typically break the victim's resistance and completely undermine the person's autonomy over one's private thoughts and thinking.

One could question whether the RFoT will be infringed when direct means or torture are used to reveal just any kind of mental content, or whether the absolute RFoT will only apply when these means reveal 'significant' mental content. And what about the obligation to reveal, orally, one's political conviction? In other words: how should the factor of *methods* of affecting mental states relate to the factor of the significance of the induced *mental effects*? This question exceeds the scope of our exploratory analyses but deserves further attention.

Characteristics of the Victim

So far, we considered two potentially relevant characteristics of a mind-interfering treatment to distinguish between absolute and qualified protection of mental privacy and integrity: (1) the mental effects of an interference and (2) the level of control one has over a mental influence. Let us now explore a third potentially relevant factor, concerning the characteristics of the victim, i.e. one's *vulnerability.*

Interestingly, the concept of vulnerability has received quite some attention in the case law under Article 3 ECHR. The ECtHR has identified various vulnerable groups, such as asylum seekers, children, people with mental disabilities, and detainees.[64] These groups are vulnerable because they are more susceptible to bodily, moral, psychological, economic and institutional harm, and thus to ill-treatment.[65] By recognising them as being vulnerable, the ECtHR acknowledges their challenges and

[62] Stavropoulos and others v. Greece, 52484/18, 20 June 2020, par. 44. Also: Grzelak v. Poland, 7710/02, 15 June 2010, par. 87.
[63] Wanner v. Germany.
[64] Harris et al. 2023, p. 243; Alajos Kiss v Hungary, 38832/06, 20 May 2010, par. 42.
[65] L. Peroni & A. Timmer, 'Vulnerable groups', *Int. J. Const. Law* 2013, 11(4), p. 1056-1085.

specific needs and underlines the duty of states to provide enhanced protection of people belonging to such groups.[66]

Vulnerability can arise because of many different reasons. For example, the young age of children, being of a certain sex, or suffering from mental disease renders people more vulnerable to certain types of harm than others. In determining whether a particular treatment reaches the minimum level of severity requirement of Article 3, the ECtHR considers the vulnerability of certain groups of victims as a relevant factor.[67] Vulnerability can also arise because of the situation a person finds herself in, such as imprisonment.[68] In fact, detainees are the most mentioned vulnerable people in the ECtHR case law.[69] Their vulnerability arises from the fact that they are under full control of the State, completely dependent on State authorities, with all its concomitant limitations: detainees may be limited in terms of access to medical assistance, contact with the outside world, and enjoying bodily integrity.[70] As a result, detainees are more vulnerable to ill-treatment.[71] The authorities are therefore under a duty to protect them.[72] For example, under Article 3, the ECtHR has emphasised that in situations where the authorities exercise full control over a person held in custody, 'their way of treating a detainee must, in view of his or her vulnerability, be subjected to strict scrutiny under the Convention.'[73]

Regarding the protection of mental privacy and integrity, it is equally arguable that some groups are more vulnerable to (severe) interferences than others. One could think of minors, the elderly and psychiatric patients. In a way, their vulnerability could reduce their *autonomy* over having their mental states being disclosed or altered, which might be relevant to the applicability of the RFoT. For example, whereas the general population might be expected to be able to resist certain forms of indirect mental manipulation, e.g., through microtargeting, this may not apply to specific groups of people due their age or mental health. Other groups that might be considered particularly vulnerable to mental interferences are employees who are urged by their superiors to use neurotechnology, like brain-computer-interfaces, and convicted offenders who are offered neurointerventions in return for parole or probation.[74]

The ECtHR's case law makes room for vulnerability considerations in assessing the applicability of Article 9 ECHR. For instance, in *Mockutė v. Lithuania*, the applicant practised meditation as part of an Osho religious movement. She was forcibly admitted to a psychiatric hospital

[66] A. Limanté, 'Vulnerable Groups in the Case Law of the European Court of Human Rights', in: A. Limanté & D. Pūraitė-Andriekenė (eds.), *Legal Protection of Vulnerable Groups in Lithuania* (Springer 2022), p. 30. See also Khlaifia and Others v. Italy, par. 160.
[67] Harris et al. 2023, p. 243.
[68] C. Heri, *Responsive Human Rights* (Hart 2021), p. 62-63; Salman v. Turkey, 219986/93, 27 June 2000, par. 99.
[69] Y. Al Tamimi, 'The Protection of Vulnerable Groups and Individuals by the European Court of Human Rights', *JEDH* 2016/5, p. 563.
[70] Wenerski v. Poland, 44369/02, 20 January 2009; Popov/Russia, 26853/04, 13 July 2006. See also: Al Tamimi 2016, p. 570.
[71] A. Reidy, *Human Rights Handbooks No. 6: The prohibition of torture* (Council of Europe 2003).
[72] Cf. E. Goodin, Protecting the Vulnerable, Chicago: University of Chicago Press 1985.
[73] Iwańczuk v. Poland, 25196/94, 15 November 2001, par. 53.
[74] S. Ligthart, E. Dore-Horgan & G. Meynen, 'The Various Faces of Vulnerability', *JLB* 2023, 10(1), p. 1-18.

after an unrelated nervous breakdown and was kept there 52 days. During that time, the medical staff attempted to 'correct' her beliefs and encouraged her to adopt a critical attitude towards the Osho movement. Taking into account that the applicant was 'an individual with a history of mental troubles, and in a particularly vulnerable situation under effective control of the psychiatrists', the ECtHR found that there had been an interference with her freedom of religion.[75] Although the ECtHR approached this case as concerning the freedom to manifest religion, it does suggest that vulnerabilities of the victim can be relevant to the applicability of Article 9 ECHR. How a vulnerability factor could work out in the applicability of the absolute RFoT is as yet unclear from the present case law but deserves, in our view, further scholarly attention.

The context of a mental interference

As noted, when determining the applicability of the absolute prohibition of ill-treatment, the ECtHR considers the context in which the contested treatment has been inflicted. For example, the Court finds it relevant whether ill-treatment was inflicted in an atmosphere of heightened tension and emotions,[76] in prison,[77] or in the context of public assemblies and demonstrations.[78]

Likewise, there could be reasons to consider the context of a mental interferences as a relevant factor when determining whether an interference will engage absolute protection from the RFoT, in addition to the qualified protection from the right to respect for private life. Consider, for example, the obligation to express one's general political view in a job interview. The moral and legal permissibility of such an obligation may well depend on the context of the interview; on whether you apply for a professorship in cognitive neuroscience or to become chairman of the Conservative Party. Likewise, it may well be normatively relevant whether one is obliged to provide information about one's emotions and intentions in the context of requesting a gun licence, which many would feel should be permissible, compared to being obliged to disclose emotions and intentions in the context of a criminal prosecution, which could contribute to one's own conviction and is prohibited in many legal systems by the right to silence and the privilege against self-incrimination, which, according to some, primarily aim to protect the accused's mental privacy.[79] In a way, it seems that the context can affect the personal interest in not

[75] Mockutė v. Lithuania, 66490/09, 27 February 2018, par. 125.

[76] Bouyid v. Belgium, 23380/09, 28 September 2015, par. 86.

[77] Muršić v. Croatia, 7334/13, 20 October 2016, par. 99: "In the context of deprivation of liberty the Court has consistently stressed that, to fall under Article 3, the suffering and humiliation involved must in any event go beyond that inevitable element of suffering and humiliation connected with detention."

[78] Council of Europe, *Guide on Article 3 ECHR* 2022, par. 41

[79] B.M. Dann, 'The Fifth Amendment Privilege against Self-Incrimination: Extorting Physical Evidence from a Suspect', *S. Cal. L. Rev*. 1970, 43, p. 597-630. See, with further references, Farahany, N.A., 'Searching secrets', *University of Pennsylvania Law Review* 2012, 160, p. 1239-1307.

disclosing certain mental states, which could, in turn, influence our normative analysis of whether, when, and what mental states deserve absolute protection from the RFoT.[80]

In the same vein, the context could be relevant regarding the permissibility of non-consensual mind-altering interventions. Think, for instance, of the non-consensual administration of antipsychotics in the context of a patient's commitment to a forensic hospital, where the patient is extremely aggressive to himself and to the hospital staff. Perhaps, in such a context of 'therapeutic necessity' or 'best medical interest', a mind-altering intervention should sometimes be, at least, 'justifiable' – leaving some room for the courts to decide whether the interference with the patient's mental integrity was or was not justified in the individual case.[81]

In this regard, we wish to highlight that although the ECtHR has firmly stressed that Article 3 ECHR is absolute,[82] it is questionable whether this is, in practice, truly so.[83] Considerations of proportionality and balancing of interests have found their way into the ECtHR's assessment of the relative threshold of Article 3, especially in a criminal justice context, such as in cases about forced medical interventions and prison conditions.[84] Likewise, developing a general threshold for the applicability of the absolute RFoT could possibly diminish the absolute nature of the right in some specific instances. Furthermore, as the case law on Article 3 has shown, the threshold of a 'minimum level of severity' is to be interpreted in light of present-day conditions. It can and has been reduced over time, broadening the scope of the 'absolute' protection. One could imagine a similar approach to a threshold for the RFoT, which may well reduce when mind-reading and thought-modulating technologies will further develop and be used in different areas of our future daily lives and, therefore, increasingly threaten our mental privacy, mental integrity, and freedom of thought.

4. Concluding Remarks

Neurotechnological brain-reading and interventions have the potential to contribute to the field of criminal justice. Meanwhile, their use in this context raises fundamental questions about the human rights to mental privacy, mental integrity and FoT. Depending on their precise interpretation, these rights have the potential to overlap. When they overlap and the protection of mental privacy and mental integrity would be covered by both the absolute Article 9 and the qualified Article 8, the need arises to

[80] Cf. this hypothetical example: intuitively, people do not have a strong interest in an absolute freedom not to reveal whether they like chocolate, but this may be different in a world where favouring chocolate could be reason to impose the death penalty.

[81] Cf. Herczegfalvy v. Austria, 10533/83, September 1992, par. 79-84. See also Bublitz 2021, p. 90.

[82] Gäfgen v. Germany, 22978/05, 1 June 2010, par. 107: "The philosophical basis underpinning the absolute nature of the right under Article 3 does not allow for any exceptions or justifying factors or balancing of interests."

[83] H. Battjes, 'In search of a fair balance', *LJIL* 2009/22; S. Smet, 'The 'absolute' prohibition of torture and inhuman or degrading treatment in Article 3 ECHR', in: E. Brems & J. Gerards (eds.), *Shaping Rights in the ECHR,* (CUP 2014).

[84] Harris et al. 2023, p. 272-273.

develop some kind of legal mechanism to distinguish absolute from qualified protection. In this chapter, we explored the potential of three general factors: (1) the mental effects of an interference and the method of inducing them, (2) the victim's vulnerability, and (3) the context of a mental interference. These factors need not be considered as a constitutive requirement for engaging absolute protection from the RFoT. Rather, their application and weight will likely depend on the circumstances of each individual case, similar to the factors relevant to the determination of a minimum level of severity under Article 3 ECHR. For example, the obligation to reveal a memory of an offence in the context of criminal proceedings, will, plausibility, not normally engage the absolute RFoT. But this might be different in case of a particularly vulnerable subject, like a child or psychiatric patient, or when the memory is read out directly from the brain, completely bypassing the person's self-control. We emphasise that our analysis is only exploratory. Much more research is required to clarify the relevance of these factors for a potential threshold and the interplay between them.

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