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My Mind is Mine!? Cognitive Liberty as a Legal Concept

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Abstract

This chapter explores some of the legal issues raised by mind-interventions outside of therapeutic contexts. It is argued that the law will have to recognize a basic human right: cognitive liberty or mental self-determination which guarantees an individual's sovereignty over her mind and entails the permission to both use and refuse neuroenhancements. Not only proponents but also critics of enhancements should embrace this right as they often ground their cases against enhancement on precisely the interests it protects, even though critics do not always seem to be aware of this. The contours and limits of cognitive liberty are sketched, indicating which reasons are good (or bad) grounds for political regulations of neurotechnologies.

X.1 Preliminaries: Some Observations on the German Enhancement Debate

As an introduction, let me share some observations on the German debate on neuroenhancement (NE). In 2009, I was among a group of German scholars from various disciplines who concluded a research project by publishing a "Memorandum on Neuroenhancement" in a popular science magazine with the aim of spurring a public debate. In short, we suggested that "the principled objections leveled against pharmaceutical improvement of the mind are not convincing. NE is the continuation of humankind's quest to enhance cognitive capacities by different means" (Galert et al. 2009, p. 47, transl. J.-C. B.).

By "principled objections" we meant arguments against NE not based on empirical issues such as negative side-effects on health or personality but those grounded on more fundamental, normative considerations. To us, neither the goals pursued nor the means employed warrant categorical objections against NE. They do not necessarily undermine the authenticity of persons, nor corrupt the value of achievement or endanger other important common goods. Nevertheless, specific substances or consumption practices may indeed lead to undesired results for both the individual and society. They should be carefully observed, prevented and rem-

edied by appropriate measures. And quite certainly, traditional means to achieve goals may sometimes be preferable to pharmaceutical shortcuts, particularly when they promote secondary virtues such as endurance and self-confidence or when they confer self-knowledge (Kipke 2010). Yet, after all, and without blindness to the perils and pitfalls they may pose, if there were substances with significant enhancing effects and tolerable risk-profiles, we should, in principle, welcome rather than condemn them. Therefore we called for:

> An open and liberal, but by no means uncritical or incautious approach to NE […]. While the arguments of NE opponents are not strong enough to warrant blanket prohibitions, some of them are worthy of further consideration and raise important questions about what is desirable for society and the individual […]. NE prompts each and every one of us to reconsider what is meaningful in our lives. Moreover, they reflect problematic tendencies of modern times, especially the orientation towards performance and competition that increasingly pervades society. (Galert et al. 2009, p. 47, transl. J.-C. B.)

Additionally, project members published the results of systematic reviews of potential enhancers. In a conservative evaluation, they conclude that, at the moment, there is not any reliable data proving significant enhancement effects, mostly due to a lack of controlled studies designed to capture them (Repantis et al. 2010a; 2010b).

Two years later, the claims of this memorandum still sound quite moderate to me. The public response, nonetheless, ranged from suspicion to outright rejection. Lifting the taboo on the desire to support one's psyche – if necessary by pharmaceutical means – was, in the eyes of many, too far a step, amounting to nothing less than a "declaration of war against mental health" as one of Germany's biggest newspapers put it (FAZ, 13.10.2009). The memorandum struck a nerve, not surprisingly, perhaps, in light of the highly ideological debates over drug policies in general.

In this chapter, I shall not defend the memorandum against the (remarkably few) substantive criticisms nor reiterate the extensively exchanged pro and con arguments. Rather, I shall explore a fundamental background assumption of the memorandum: the right to cognitive liberty (CL). It is, or rather, should be the central legal principle guiding the regulation of neurotechnologies, guaranteeing the right to alter one's mental states with the help of neurotools as well as to refuse to do so. Most legal systems, however, have yet to acknowledge such a right. The public debate has demonstrated that not only the law but also the wider public has been reluctant to embrace the ideal of cognitive liberty. Thus, I shall explore its meaning, scope and limits, especially in light of what I take to be the strongest legally-relevant argument *against* NE: worries over social pressure.

Very likely, a widespread use of enhancements will create pressures on persons preferring to abstain from using them. By raising standards of cognitive fitness in competitive job markets or by subtly shifting ideas of mental normality, nonusers may be confronted with the social expectation to "take a pill." This might lead to

the "paradoxical perspective of some people expanding their freedom of action by restraining the freedom of will of equally numerous others" (Merkel 2007, p. 289). Critical arguments along this line implicitly draw on the idea of cognitive liberty.

In a broader perspective, the desire and demand for NE seem to be related to economic developments. In a thought-provoking paper, Hess and Jokeit suggest that today's "neurocapitalism" adapts "the innate neurobiological capacity of humans as a productive force to the technologies of globalization" (Hess and Jokeit 2009, p. 6). As the western world reduces accumulation of wealth through physical labor and industrial production, it is transformed into a "mental economy" (Franck 2005). From scientific innovations, creative work, cultural and media productions to financial markets, economic progress depends on the generation of novel ideas, knowledge capital and intellectual property. In mental economies, minds are the places of production. With information processing as its foundation, mental labor creates specific demands on workers and employees, primarily with respect to their cognitive capacities. And as we can witness in our own lives, the exploding amount of data constantly flowing into our minds easily exceeds our ordinary capacities. It does not come as a surprise then that the inability to cope with information overload characterizes the mental *conditio humana* in the age of neurocapitalism:

> Attention deficit disorder probably encapsulates the key symptoms of mental illness in the 21st century. Just as the repression of past centuries gave rise to the silent drama of neurotic symptoms, and the apparently boundless excess of the second half of the twentieth century created a breeding ground for the desireless state of depression, so the elevation of pre-selective attention skills and emotional intelligence to decisive competitive advantages could, in the event of failure, be very harmful to precisely these […]. Wriggling helplessly between a dearth and an excess of stimuli, unable to escape the ubiquitous flood of signals, the relaxation mechanisms impaired and experience of emotions brutalised – all of these are symptoms that in the collective consciousness go under the general heading of ADD. (Hess and Jokeit 2009, p. 6)

Since historically, capitalism has always succeeded in producing the "scientific and technological wherewithal to […] mitigate the self-generated 'malfunctioning' to which its constituent subjects are prone" (Hess and Jokeit, ibid), cognitive and mood enhancements might be the latest and most intrusive means to mold the minds of the workforce to cater to capitalist needs. And when mental skills become commodities, optimizing the brain is optimizing the means of production.

Relatedly, sociologists diagnose the acceleration of many parts of social life. "Fast food" and "speed dating" are the surface symptoms of a thoroughly sped-up pace of life. Without eternity, a good life for secularized subjects consists in making the most out of their spare time, creating a subtle but constant feeling of scarcity, of never having enough time (Rosa 2009). Then, not incidentally, sleep-reducing drugs as Modafinil and alertness-increasing amphetamines (street name "speed") are becoming popular, not only for work but also for leisure activities.

These observations help to understand people's motives for enhancements. And while contextualizing technologies within the dynamics of societies is indispensable for their assessment, the normative ramifications often remain unclear. For instance, in many public debates on NE, variants of a "better-world" argument can be found, roughly running like this: In a better world, e.g. free from capitalist working conditions, no one would desire to take NEs; hence, it is preferable not to take them. Normative principles such as cognitive liberty and other arguments in favor of the right to take NE are then dismissed as misguided, apologetic and insensitive to flawed societal conditions. Yet, by such reasoning, contextualizing technologies leads to conflating different levels of analysis. While one may rightly criticize e.g. working conditions and their impact on mental well-being, it does not undermine the importance of the normative concept of cognitive liberty. On the contrary, concerns about negative mental effects of substances as well as social conditions should lead critics to support mind-protecting rights such as cognitive liberty.

More generally, any regulation of technologies for mind-interventions is confronted with defining legal principles that guide policies over changing minds. Thus, every call for legislative action over neurotechnologies has to provide proposals which cannot merely consist in *ad hoc* suggestions tailored to suit one's view on NE. Rather, they have to be aligned with and embedded in the broader framework of rights and duties that constitute legal orders. Even though cognitive liberty is not among the rights found in positive law, it is, so I claim, among the implicit assumptions of any liberal democratic state. It may have been neglected, even fallen into oblivion in legal thinking, but, nonetheless, it cannot be ignored by anyone who formulates policy recommendations. Cognitive liberty's main claim, the right to self-determine what is on (and in) one's mind, can be inferred from general and widely-accepted ideas of the relation between the individual and the state, granting persons wide ranging liberties in self-regarding matters. Historically, the idea of cognitive liberty can be found in the works of authors such as Kant and Mill (X.3), and traces can be found in some provisions of today's positive law (X.4). Nonetheless, the law has yet to define scope, contours (X.5) and limits of mental freedom (X.6). Only then can more substantive arguments about neuropolitics be made. But before we turn to the law, some words about the relation between neuroethical and legal arguments are in order.

X.2 From Neuroethics to Neurolaw

The differences between neuroethics and neurolaw can be illustrated by one of the objections leveled against the memorandum's presumption of liberty to take NE:

> [The] initial point of our inquiry is the liberty of every competent person to find and define for herself the paths to a good life which entails self-determination over her body and her mind. This perspective is neither ar-

> bitrary nor negotiable: It is the foundational presumption of any liberal democratic state and of the German Constitution. Hence, it is not the potential consumers of NE who are in need of justifying their cause, but, on the contrary, those who seek to restrict the liberty to change one's mind [...]. Although strict prohibitions are currently not warranted, soft ethical recommendations against NE might well be, especially in light of considerations over what constitutes a flourishing life. (Galert et al. 2009, p. 40, transl. J.-C. B.)

The presumption of liberty implies that restricting freedoms needs stronger justification than exercising freedoms. Critics were quick to contend that the Memorandum is hence based on a *petitio principii* with the liberal conclusion being assumed in the premise. Even if counterarguments to NE were truly unconvincing, critics claim, a liberty to take NE cannot be inferred, at least not without further argument. To them, the presumption of liberty appears as a rhetorical trick instead of a substantial argument, shifting the argumentative burden on opponents of NE (Hoppe 2009). Apart from the fact that I hold it to be self-evident that, *other things being equal,* improved cognitive capacities are valuable and worthy to pursue, the critics' objection points to differences between neuroethics and neurolaw.

In order to define policies and legal regulations regarding NE, the abundant (neuro-)ethical arguments have to be translated into legal, rights-based arguments. Not all legitimate ethical concerns are automatically legitimate bases for policy decisions since the perspectives of ethics and law differ (Basl 2010). While ethicists tackle questions such as "What should I do?" or "In what kind of a society do we want to live?" and may, in answering, resort to whatever metaphysical, political or spiritual conception they deem favorable, legal philosophers are concerned with justifying coercion and infringement of legally-protected interests.

This change in perspective has normative consequences: In light of the law, some of the common issues in the debate, such as the treatment/enhancement distinction or the issue of authenticity, bear different argumentative weight. While some interests are protected by strong rights, others may not enjoy any legal protection at all. We will see how some ethical arguments reappear in a legal context in a moment. Here, it is important to note that every prohibitive or restrictive legal norm *prima facie* infringes on rights and, hence, needs to be justified by prevailing interests of others or society. Thus, any call for curbing access to or use of NE is in need of justification. It should be borne in mind that it is a main feature of liberal constitutional orders to protect individuals against state interferences – not only against the power of despots, but also against what may be called the ethical tyranny of the "moral majority." Rights are, by their very nature, constraints of public power. So, ethicists may devise kinds of society worth living in; yet, in enforcing them (against the wills of affected persons), democratic governments have to observe constitutional limits, particularly the following two:

X.2.1 Liberty: Question Begging or Fundamental Value?

First, rights confer on their holder "spheres of freedom" that restrict the scope of legitimate governmental interferences. Constraints follow roughly this idea: The more measures affect primarily the interests of the individual, the less others – and the state – should have to say about them, and *vice versa*. Issues exclusively concerning the individual are to be decided by her alone; whereas, others are *res publica*, issues of public interests proper. In regulating the latter, elected governments have a wide margin of appreciation and room for political decisions. The tension between the individual and society is the foundational conflict that democracies face and which legal constitutions are designed to appease and adjust. The problem in delineating the private from the public sphere is that *everything* a person does might in some way or another affect others and society. Thus, *judgments* about private and public domains have to be made, and their constant rearrangement sets the background to many current controversies from internet anonymity to counterterrorism. Reformulated in legal terms, some (but few) rights are absolute and inviolable which means that governments cannot interfere with them for any reason. Other rights are strong but restrictable, placing high demands of justification on infringing measures, and some, such as the basal freedom of action in continental jurisdictions, can be limited quite easily.

Let me illustrate this with the body. It is contested whether the right to life is absolute – many constitutions and human rights treaties have limitation clauses allowing governments to take the life of citizens in special situations. Human dignity, by contrast, is often regarded as "inviolable".[1] Thus, killing another person might be permissible in exceptional circumstances, whereas, humiliating and degrading treatment (e.g. torture) never is. Logically, the right to bodily integrity has to be weaker than the right to life, but it nonetheless ranks among the strongest rights in many constitutions and human rights treaties. Therefore, what individuals do to their bodies is left to them to a large extent. From tattooing and cosmetic surgery to extreme sports, potential (statistically, even lethal) threats to health and bodily integrity are within the domain of personal decisions. In these cases, state regulations primarily concern safety standards, duties to inform about risks (of e.g. surgical interventions) and issues of consent, regardless of the fact that such bodily modifications may in one way or another relate to the social sphere. Plastic surgery, for instance, supposedly has already influenced collective ideas of beauty and aesthetics and is very likely a contributing factor to the prevalence of dissatisfaction with one's physical appearance. Some persons may even feel "pressured" to undergo surgery themselves. Even if this were to be proven empirically, society may – and should – criticize the superficial values expressed in cosmetic surgery

[1] Art. 1 European Charter of Fundamental Rights (ECFR); Art. 1 I German Constitution; Art. 3 European Convention on Human Rights (ECHR).

but not ban it. Self-determination over one's body finds limits in extreme cases (such as the amputation of healthy limbs in Body Identity Disorder).[2]

At least a similar scope of self-determination has to apply to the mind. Bodily self-determination is not an idea inherently bound to the physical part of persons, but rather a manifestation of the general principle of far-ranging autonomy in primarily self-regarding matters, itself a pre-condition for an effective and full enjoyment of many other, more specific human rights. From these broad observations, the presumption of liberty (to take NE) follows. Concededly, in a strict sense, the presumption of liberty is not a moral, but a legal or political argument. Legal permissions for actions do not imply that they are ethically advisable; they do not provide orientation on *what* one ought to do, only *who* should have the power to decide. And when it comes to the mind, it has to be the affected person herself. Surely, presumptions can be rebutted and liberties restricted if opposing interests are stronger. This depends on the weight assigned to cognitive liberty and where the boundaries of the individual sphere are drawn in respect to the mind. These are the novel and not-yet-fully-addressed challenges for neurolaw. Moreover, there is another limit to be observed by democratic majority rule: Restrictions have to be based on (somewhat) *neutral* reasons.

X.2.2 State Neutrality and Authenticity

The principle of state neutrality roughly commits governments to neither favor nor discriminate against particular worldviews, at least in regard to their different conceptions of a good life (Rawls 2005, p. 191). The finer details of neutrality are subject to ongoing debates; accounts differ in their orientation on the effect of measures or its justification and more generally on the role of the state as such. Some, especially European, states traditionally take a more pro-active stance towards fostering social values while others, e.g. the US, have traditionally lower state involvement in matters of a good life. Prime examples of the divergent views within Europe can be found in court judgments on religious head-scarves or crucifixes, which demonstrate that legal orders do not adhere to a firm neutrality doctrine.[3] Sometimes it seems as if the neutrality thesis has gathered more attention in political philosophy than in constitutional practice. Nonetheless, its main claim can hardly be pretermitted. While states can en- or discourage citizens' conduct

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[2] Some peculiarities of legal provisions concerning the body should be noted. Feminists point to the fact that as soon as social interests are at stake, the uniquely personal body becomes highly political, e.g. restrictions on abortion, prostitution, organ selling, surrogate motherhood (cf. Fabre 2006). These limits to self-determination are probably best understood as (arguably too restrictive) dignity-based attempts to not commodify the most intimate aspects of persons.

[3] See the European Courts of Human Rights (ECtHR) recent decision allowing crucifixes in Italian Schools (Lautsi v. Italy; App. 30814/06) compared to the ban by the German Constitutional Court (BVerfGE Vol. 93, p 1).

through a variety of measures, if freedoms are curbed by legal, i.e. binding-for-all, prohibitions, it is plausible to demand that the interests and values justifying the prohibition should, in principle, be acceptable to everyone affected by it.

Some central arguments in the enhancement-debate evoke the suspicion of not being neutral in this sense. The controversy over authenticity, for instance, is caught between two opposing poles (Parens 2005). On the one side, essentialist conceptions imbued with ideas of a pre-given, rather static "true self," promote self-discovery via an introspective journey and reject any artificial alterations of "who one really is." On the other side of the spectrum, existentialist views deny any such pre-given structures since "existence precedes essence." Without a predestined purpose to be found in an inner essence, persons have to actively develop and shape their personality, creating, modeling and choosing how they want to be. For this, NEs could be valuable tools. Both views are reasonable, yet mutually irreconcilable (Bublitz and Merkel 2009). After all, how to argue about authenticity e.g. vis-à-vis a Buddhist denying the existence of selves (also see Metzinger 2003)? In cases like this, governmental regulations should not be grounded on one particular conception.

The same suspicion applies to the closely-related argument that enhancements express an "improper disposition toward the naturally given world: the failure to properly appreciate and respect the 'giftedness' of the world" (President's Council 2003, p. 288; cf. Sandel 2007, who, of course, is skeptical about neutrality). In this view, artificial alterations of one's self do not only violate obligations vis-à-vis oneself, but also against nature or a divine creator. However, I may (and do) personally feel indebted to some entities, say, my parents, ancestors or teachers, but simply fail to feel indebted to a creator. Even though Sandel (2007, p. 93) holds that reverence for giftedness does not require a giver, an entity indebted to, it's hard to see where the reverence should come from if one does not share it intuitively. And with regard to nature, it would be equally (im-)plausible to revere the powers of evolution or the Quantum Universe and its ynamic and transformative processes. Nowhere, nature is s? aptly characterized as the mere conservation of the status-quo. At any rate, the neutrality doctrine speaks against the use of state power to impose a lifestyle of giftedness on those who find it incomprehensible while, of course, no one should be restrained from following such stronger personal moral convictions. On the other hand, the neutrality constraint should not set impossibly burdensome standards on state action where decisions have to be made and cannot, by the nature of their subject matter, but favor one side (Dees 2010, p. 54).

In a sense, the gist of the foregoing is that between neuroethics and neurolaw stands political philosophy. Anyone making policy recommendations or calling for legal regulations of NE has to acknowledge that passing bills and enforcing regulations is only possible within the framework of the legal order, a cornerstone of which is the presumption of liberty. And as neutrality – in whichever exact sense – is a plausible constraint of majority power, a double onus is placed upon prohibitive proposals: They need to demonstrate that protected interests are sub-

stantial enough to rebut the presumption of liberty and provide additional arguments for why their view should be binding for all.

X.3 Toward a Legal Concept of Cognitive Liberty

Now let us turn to genuine legal considerations.[4] Cognitive liberty or a right to mental self-determination guarantees individuals sovereignty over their minds. As said, such a right is not enshrined in constitutions, human-rights treaties or legal textbooks. To jurists content with describing positive law, cognitive liberty does not have much of an appeal. The currently enacted drug-regulations might even appear to refute the thesis of cognitive liberty as a fundamental principle of law. Yet, as Kant once remarked, a "merely empirical doctrine of right is a head that may be beautiful to look at, but unfortunately it has no brain" (Kant 1797, p. 230). In a sense, brainlessness also fittingly describes the current state of positive law. While legal orders have detailed rules over permissible conduct with bodies, there are hardly any criteria for permissible ways of interfering with brains and minds. Legal principles pertaining to the body cannot simply be transferred to the mind (or the brain): We do know, for instance, what constitutes illegitimate injury to other bodies; whereas, it is quite unclear what constitutes illegitimate *mental* harm –don't we hurt each other all the time? Legal norms relating to mental injuries are often scattered and incoherent, and, at any rate, cannot be equal to those relating to bodily injury. Also, consider manipulative interferences. While persons seek to influence and manipulate each other in almost every aspect of social life, from family matters to public affairs, there seems to be a qualitative difference between these ordinary influences and e.g. covertly administering psychoactive substances. Traditional legal categories such as lying and deception are insufficient to capture the latter kind of manipulations on the level of synapses and neurotransmitters (Bublitz and Merkel 2012). Therefore, and without presupposing an ontological mind-brain dualism (at least, of a stronger kind), legal protection of the mind cannot be identical to the protection of the body, but requires distinct and yet-to-be-worked-out criteria. Elsewhere, I have suggested that some jurisdictions should even consider introducing a criminal offence penalizing grievous interventions into other minds (Bublitz and Merkel 2012). The point is this: the lack of a theoretical framework of negative interventions into *other* minds is entwined with the lack of considerations on positive, self-determined alterations of *one's own* mind. Normatively, both are two sides of the same coin: Cognitive liberty.

For many reasons and in many ways, the mind is still a *terra incognita* for the law. In pre-neuroscience days there neither seemed to be a practical necessity for

[4] As national legal systems differ, the following remarks are rather general legal observations.

mind-protecting norms, nor were there any ways to meaningfully incorporate what were perceived as intangible, immaterial and inviolable mental states into legal doctrines. This has changed, and legal thinking should change accordingly.

Furthermore, the legal premise of free will seems to obstruct clear thinking about cognitive liberty and mental self-determination. Lawyers often entertain an overly simplistic understanding of free will. It is presupposed that persons have free will (in whichever exact sense), or at least, that the law has to treat persons as if they had free will, so that, in the eyes of the law, persons are quite ideally self-controlled agents. This picture does not leave much room for deficient self-determination over mental phenomena. If the law were to acknowledge the vulnerabilities and manipulability of the mind, it might be suspected of contradicting its own premises. Although rarely made explicit, background reasoning along these lines seems to cloud the view on a right to mental self-determination.

But on a closer look, the assumed tension between these legal premises vanishes. On the contrary, the fact that the law presumes that persons possess quite strong mental powers even supports calls for a right to cognitive liberty. In a nutshell: If the law treats persons as self-determined over actions and antecedent mental states by ascribing to them mental powers which, in reality, they may only rarely have, and if it holds them accountable for consequences of mind-states (in criminal and contract law, "meeting of the minds") *as if* they had free will, then, as a corollary, it has to grant them the legal powers of self-determination. Responsibility entails self-determination. Cognitive liberty is, in a way, the right to free will, protecting the conditions of possibilities of "free" actions and therewith of blame and retribution. In light of this, cognitive liberty is not merely a political claim that one may favor or reject. Rather, it is an implicit assumption of any legal order based on individual self-determination and responsibility.

X.3.1 The Notion of a Legal Subject

This thesis finds support in another line of reasoning. The very first step in setting up legal orders is to define the entities constituting it; namely, the legal subjects entering into a social contract and a state of rule of law. In a subsequent step, the content of the contract (i.e. the rights and obligations these subjects owe to each other) can be deliberated upon. In the prior "original position," the body of a person is considered to "belong" to her; bodily self-determination is not a right to be assigned in the course of negotiation but assumed from the outset. But even more constitutive of a subject, *cogito ergo sum*, is her mind. It is not just one aspect among many, but, arguably, it is what defines subjects, and hence, legal subjects. In fact, it is hard to conceive any conception of a legal subject in which the mind and mental capacities (e.g. acting from reasons, deliberation) are not among its necessary constitutive conditions.[5] Thus, I submit, the claim "my mind is mine"

[5] To include non-conscious humans such as *nascituri*, requirements may be lowered to potentiality for mental processes. Also, acceptance of corporate legal

is not based on property rights nor on a legally established relation of ownership between entities, not subject to distribution of *meum* and *tuum*, but rather the point from which any legal order originates, intrinsic to the very notion of legal subjects. The "innate" – not acquired – right of everyone is the right to one's person, to make use of one's mental and bodily powers and to remain free from interferences.

These arguments demonstrate that cognitive liberty is deeply anchored in the foundations of the law. Unfortunately, legal thinking has never thoroughly explored its meaning. The term cognitive liberty has only recently been put forward by US legal scholars and civil rights activists (e.g. Boire 2000; Sententia 2004; Blitz 2010).[6] As Boire correctly observes:

> The right to control one's own consciousness is the quintessence of freedom. If freedom is to mean anything, it must mean that each person has an inviolable right to think for him or herself. It must mean, at a minimum, that each person is free to direct one's own consciousness; one's own underlying mental processes, and one's beliefs, opinions, and worldview. This is self-evident and axiomatic." (Boire 2000, p. 8).

The idea behind cognitive liberty, however, is anything but new and can be found in the works of some of the intellectual "founding fathers" of modern constitutional theory, Kant and Mill.

X.3.2 Historical Traces of Cognitive Liberty

X.3.2.1 Kant's Doctrine of Right

In Kant's doctrine of right, the distinction between internal and external actions plays a pivotal role. To him, the concept of right "has to do, first, only with the external and indeed practical relation of one person to another, insofar as their actions, as deeds, can have (direct or indirect) influence on each other." Juridical laws are those "directed merely to external actions and their conformity to law" (Kant 1797, pp. 230, 214). Kant restricts the purview of the law to the regulation of actions in the external world. In his view, the law's function is to ensure and enforce equal freedoms of everyone, i.e. independence from being subjected to other people's choices. Different freedoms can only collide with each other in the real world, where actions of one come in practical conflict with those of others. Mediating this conflict legitimizes law. Therefore, legal obligations can proscribe external conduct, but as freedoms of others are not constrained by events internal to agents (mind-states), legal coercion to modify them is never justified. In this view,

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personhood does not necessarily refute the above claim, but I must leave this issue aside here.

[6] See the Journal of Cognitive Liberties at http://www.cognitiveliberty.org, particularly "On Cognitive Liberty I – IV", to which this chapter is indebted.

mental duties are *ultra vires*, outside of the legitimate mandate of the law, as long as a person's outward behavior conforms to the law (Ripstein 2009; Kersting 2007, p. 83). Kant never clearly laid out where the boundaries between internal and external actions run, an issue still being discussed today (von der Pfordten 2007). Yet, by positing the mental as the legally private realm and the external as the public sphere, Kant formulates a key ingredient of cognitive liberty, severely limiting state powers over minds.

X.3.2.2 Mill: On Liberty

In his "On Liberty", Mill writes:

> [T]here is a sphere of action in which society, as distinguished from the individual, has, if any, only an indirect interest; comprehending all that portion of a person's life and conduct which affects only himself, or, if it also affects others, only with their […] consent. When I say only himself, I mean directly, and in the first instance: for whatever affects himself, may affect others through himself […]. [T]he appropriate region of human liberty […] comprises, first, *the inward domain of consciousness*; demanding liberty of conscience, in the most comprehensive sense; liberty of thought and feeling; absolute freedom of opinion and sentiment on all subjects […]. Secondly, the principle requires liberty of tastes and pursuits; of framing the plan of our life to suit our own character; of doing as we like, subject to such consequences as may follow; without impediment from our fellow-creatures, so long as what we do does not harm them even though they should think our conduct foolish, perverse, or wrong. (Mill 1859, pp. 82-83)

In view of the states' interest in the "whole bodily and mental discipline of every one of its citizens" (Mill 1859, p. 81), Mill forcefully argues that any notion of liberty implies restrictions of governmental powers in self-regarding domains, first and foremost, in respect to body and mind over which the individual has to be sovereign. Another interesting suggestion is that even other-affecting actions should be considered self-regarding if they affect others only "through" the individual herself – an idea we will return to.[7]

Generally, one does not have to subscribe to Kantian ideas or the Millian harm-principle – in fact, the following argument allows for greater restriction of cognitive liberty than both might have approved of – in order to acknowledge the main point: The idea of strictly limited state powers in matters of the mind is conceived as a prime principle in the founding age of modern democracies, reinforcing my

[7] Interestingly, "On Liberty" was written during a time in which alcohol was prohibited in some parts of the UK and the US (1859, p. 151; Boire 2003). Alcohol, the most widespread (social and communicative) enhancer illustrates that persons have always had an interest in changing their minds, and despite all the problems it causes, a new prohibition is unthinkable in the western world.

claim that cognitive liberty has been a neglected precondition of the legal order. Furthermore, traces of cognitive liberty can be found in today's positive law.

X.4 Rights in the Proximity of Cognitive Liberty

Let us briefly take a look at some rights in the proximity of cognitive liberty. Of course, as legal systems differ, rights accepted in one jurisdiction may be absent in another. My focus here is on European Human Rights and German Constitutional law.

X.4.1 Freedom of Thought

"Thought is free" is not only the main line of a famous German political folksong, but also a fundamental legal principle. Freedom of thought is one of the strongest existing rights, enshrined in every human rights treaty,[8] but not explicitly enumerated in most (European) national constitutions.[9] Nevertheless, the European Court of Human Rights (ECtHR) and the German Constitutional Court (BVerfG) have repeatedly proclaimed its significance for any democratic state.[10] Freedom of thought is an absolute right, i.e. there are no limitation clauses allowing restrictions. Whatever falls within the ambit of freedom of thought is hence off-limits for state regulations.[11]

Its theoretical importance, however, is contrasted by its practical insignificance. There are no court cases defining meaning, scope and limits of this fundamental freedom (Blitz 2010).[12] Not even the outspoken and critical legal commentaries define its contours in more detail. Most agree that freedom of thought protects the *forum internum*, understood as a person's inner sphere in which opinions and thoughts are formed and revised (in contrast to the outward manifestation of beliefs in the *forum externum* – protected by freedom of speech). Commonly cited violations of freedom of thought are practices such as "brainwashing" or "indoctrination" (Vermeulen 2006, p. 851), but these are quite vague notions themselves

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[8] Art. 9 ECHR; Art. 10 ECFR, Art. 18 Universal Declaration of Human Rights (UDHR).

[9] The US Supreme Court apparently referred to freedom of thought in some decision, yet it is not recognized as part of the 1st amendment protection in the US (cf. Blitz 2010).

[10] ECtHR: Kokkinakis v. Greece (App. 14307/88), 25.05.1993, § 31; Decisions of the German Constitutional Court (BVerfGE) Vol. 80, pp. 367 (381 - dissenting vote).

[11] E.g. UN General Comment No. 22, 1993: Art. 18 UDHR does "not permit any violation whatsoever on the freedom of thought."

[12] I have yet to find one European case in which freedom of thought played a decisive role.

(Taylor 2004). Even in philosophy, the very discipline of free thought, the idea has received little and perhaps insufficient attention (at least in comparison to free will; Pettit and Smith 1996).

In light of its absolute (unrestrictable) nature, freedom of thought has to be construed narrowly, but, I suggest, not void of any practical application. The right has to guarantee basic capacities required for performing mental acts such as thinking, rational reflection or revision of arguments and has to protect against manipulations. Therefore, it has to encompass the brain processes that underlie thinking and decision-making, including their modulation to both detrimental and beneficial effects. However, while negative interferences with other persons' thinking processes may violate their free thinking, it does not follow that banning tools to enhance one's own thinking does likewise. After all, this might imply that persons with ordinary cognitive capacities cannot think freely, a misguided contention. So, freedom of thought seems to be interfered with only if capacities fall below a threshold. Accordingly, the right to free thought may e.g. mandate states to provide children with school education, but not oblige them to provide access to NE. Yet, these are tentative first approximations. Formulating a modern-day concept of freedom of thought, informed by empirical sciences and philosophy of mind, is an open task for the law. Its ambiguities notwithstanding, freedom of thought and the protection of the *forum internum* are reminiscent of Kant's distinction between internal and external actions and underscore that the "inward domain of consciousness" is a highly sensitive area for legal regulations.

X.4.2 Personality and Privacy Rights

Another set of rights relating to legal regulations of NE are personality or privacy rights. Art. 2.1 of the German Constitution guarantees:

> "Everyone shall have the right to the free development of their personality provided that they do not interfere with the rights of others [...] or the public order."

Art. 22 of the United Nations' Universal Declaration of Human Rights (UDHR) stipulates:

> "[E]veryone [...] has the right to social security and is entitled to realization [...] of the economic, social and cultural rights indispensable for his dignity and the free development of his personality."

Other constitutions and human right treaties guarantee "privacy" or "private life" (e.g. Art. 8 ECHR; Art. 7 ECFR) protecting a space of seclusion against unwanted intrusions – "be that the head or the home" (Marshall 2009, p. 3). By drawing spatial limits, privacy rights exemplify the law's approach to delineating spheres of individual and public concern in quite a literal way. Privacy rights have been steadily expanded and often overlap with personality rights. The judicature of the ECtHR has evolved from protecting privacy to personal autonomy (Marshall, ibid). In the words of the Court:

> For numerous [...] authors the right to respect for private life is the right to privacy, to live protected from publicity [...]. In the opinion of the Court, however, it does not end there. It comprises also the [...] development and fulfillment of one's personality.[13]

Notably, the right even guarantees the development of one's personality in *social interaction*, which may, at first glance, appear as the very opposite of privacy. Privacy is particularly visible in US and French law, and legal scholars from these traditions have proposed to further develop the concept of privacy to offer protection against mind-reading and -interventions ("mental privacy", cf. Halliburton 2007, Tovino 2007). Here, I shall concentrate on personality rights in German law.

Interestingly, the right to develop one's personality bears some relation to the ethical debate on authenticity. German Constitutional Law distinguishes between the protection of a person's "core personality" on the one hand and actions contributing to its development on the other. Whereas the core personality is inviolable and enjoys absolute protection against state-interventions, mere personality-forming actions enjoy weaker protection. By defining the scope of the personality core, legal reasoning resembles the diverging ethical views on what constitute authentic personalities. In legal practice, only few aspects of the person are considered part of the core of the personality (e.g. gender and sex issues) while many interventions (e.g. coerced medication) are regularly not regarded as core-interferences. Presumably, the underlying picture of what a personality core consists of is permeated with normative and essentialist assumptions that, unfortunately, have never been articulated openly. Similar developments can be observed in the judicature of the ECtHR (Marshall 2009). Here, legal reasoning could be informed by the ethical discourse.

Conversely, the legal situation points to an underappreciated *normative ambivalence* of authenticity: While it is hard to draw on authenticity to formulate an objection against a person's deliberate transformations of herself without presupposing "true selves," it can meaningfully be used against alterations of other persons' personalities. "Do not severely interfere with another person's character" is a normative claim without much metaphysical baggage, and it is precisely what personality (and privacy) rights guarantee. They express the principle that others (and the state) regularly do not have a legally enforceable interest that an individual's character should be a certain way or exhibit particular traits and, consequently, bar state-interference with existing personality structures.

By contrast, actions by individuals to actively develop and transform their personalities are protected to a considerably lesser degree. In German law, this freedom is synonymous with the basic and easily limitable right to free action. For example, the ban on cannabis has been tested against this weak right only. In a constitutional challenge against its prohibition, the German Constitutional Court held that cannabis consumption falls under the right to develop one's personality,

[13] ECtHR: X v. Iceland (App. 6825/75), 1976.

but only in this weaker form, hence it is limitable by reasonable public interests.[14] If that judgment were a precedent for other mind-altering substances, the level of protection for NE is marginal as interferences with free action are easily justifiable. As a result, personality transformations via NE would enjoy the same degree of protection as most other, even mundane activities such as "horseback riding in the woods" or "feeding pigeons."[15] While feeding animals is surely beneficial to the development of one's personality, (German) courts have yet failed to appreciate the difference between these trivial actions and practices which aim primarily at individuals' inner aspects and alter personalities in a much more straightforward way.

The reason for the weak protection of freedom of action is that actions in the external world, just as Kant pointed out, interfere with freedoms of others or public interests in innumerous ways and have to be restricted all the time. However, this does not seem to be the case with all personality-transforming actions; some, especially the consumption of NE, are different. The enhancing action, e.g. ingesting a pill, does not *per se* interfere with reasonable interests of others. Rather, it is the *effects* of the substance on the person that raise concerns. However, the altered personality as such does enjoy full and strong legal protection, irrespective of its genesis. A thought experiment: If there were permanent enhancements, say magic pills turning users into cognitive super-humans, the state would not have the competency to order super-humans to reverse their transformations. Just as any other personality, an enhanced personality is off-limits for state interventions. So here is the catch: If the result of an action is nothing that others can (legally) complain about, and the action itself does not interfere with others' legally-protected interests, it is hard to see where the legitimacy of the state's power to prohibit the action comes from. At least, the usually adduced reasons for banning actions do not capture the normative peculiarities of self-transformations. Therefore, the threshold for restricting such actions has to be considerably higher than for those directly infringing on the freedoms of others.

I suspect this is what Mill hinted at by referring to actions affecting others only "through" the individual herself. Nevertheless, *pace* Mill, I do not think that such actions can be considered entirely self-regarding. As said, this requires normative judgments about the limits of state power. Given the fact that neurotechnologies may not only transform the psyche of the individual but also society at large, some regulations seem justifiable.

X.4.3 Mental Integrity and the Treatment/Enhancement Distinction

Finally, let me briefly note another currently existing right: mental integrity, as protected e.g. by Art. 8 ECHR and Art. 3 ECFR. Again, meaning and scope of the

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[14] Decisions of the German Constitutional Court (BVerfGE) Vol 90, p. 145.

[15] These are two well-known German cases invoking constitutional protection for trivial activities (BVerfGE Vol. 54, p. 143; Vol. 80, p. 137).

right to respect for mental integrity are unclear. Presumably, it is meant as a right to mental health; some commentators suggest that it could imply a right to mental self-determination (Höfling 2006), which, in my understanding, *is* a right to cognitive liberty. At the very least, these European provisions show that the mind has to enjoy strong human-rights protection.

The scope of the right to mental health relates to the often challenged distinction between treatment and enhancement. While there are certainly grey areas between illness and health, open to cultural and social variances, the claim that *any* distinction is arbitrarily drawn is hard to accept. At least, there is quite a significant legal difference between health and illness: No state can deny patients' access to necessary (and effective) forms of therapy.[16] This does not, however, imply corresponding obligations of states to provide patients with medical care since governments have discretion over – and limited financial resources to meet –such positive obligations. Morally, however, if there is any positive obligation of solidarity towards each other, it is support in times of tragedy and illness. Thus, patients have a strong legal right against being barred access to existing treatments, which is supported by a moral obligation of the state to provide for necessary therapeutic resources. Similarly, the right to health outweighs e.g. concerns over fairness: states cannot deny persons a form of therapy just because others would not be able to afford it. Obviously, these normative considerations do not equally apply to enhancements, and, therefore, despite gray areas and factual problems in delineating treatment from enhancement, their difference is relevant. Another consequence is that public funds and resources should be *prioritized* for treatment and research.

X.4.4 Gaps in Current Law

To sum up: There are some rights that are closely related to the idea of cognitive liberty, yet in their current state, they fail to adequately cover the peculiarities of mind-interventions. There are no systematic approaches to define permissible and impermissible ways to change minds, so that legal theory has yet to develop more fine-grained doctrines dealing with the mind and mental states. The ramifications of the theoretical underappreciation of the mind reverberate in several areas of the law (e.g. tort-law damages for mental injuries are highly controversial and may be reformed in light of brain imaging evidence; Grey 2011). Nonetheless, one cannot interpret the fundamental ideas behind liberal constitution other than a guarantee of protection of the essential elements of a person. With respect to novel

[16] Of course, states can regulate markets to avoid exploitation of patients, secure good-practices, assess risk-benefits, etc., but they cannot, in my view, outlaw effective therapies. Therefore, the ideologically motivated ban on the use of psychedelics in (psycho-)therapy has to be lifted, provided substances are effective and relatively safe (currently, the first LSD study for more than 30 yrs. is conducted by Gassner, www.maps.org/research; regarding MDMA see Mithoefer et al. 2011).

technologies, the law has to buttress the individual against invasions of her inner domain, even if interventions fall short of violating the "core" of a personality or obstructing free thinking; likewise, the law has to ensure self-determination over one's own mind, at least *prima facie*. Limits are, of course, subject to discussion. What is missing then is a mind-protecting right and principled criteria over means of changing minds from which more concrete regulations can be deduced. Logically, developing such a right is a step prior to defining regulations of particular NE substances. Because of this, pointing to existing drug-prohibitions conveys the false impression that self-determination over one's mind enjoys weak legal protection only. Technically, the right to cognitive liberty could be construed either by blending the just mentioned ill-defined existing rights into one novel unified right or by further developing existing provisions guided by the idea of mental freedom. Establishing such a right raises a multitude of questions for various areas of the law. Here is a rough sketch of its possible scope and limits in regard to regulations of NE.

X.5 Cognitive Liberty

X.5.1 Scope of the Right

The protection of an individual's self-determination over her mind should comprise the entire *forum internum*, i.e. all mental states or capacities and therewith cognitive as well as emotional (potentially even unconscious) phenomena. Surely, speaking of mental self-determination or freedom is always entangled with metaphysical assumptions and intriguing questions of what freedom might mean in regard to both brains made up of neurons and governed by natural laws and mental phenomena, which supposedly follow hard-to-describe psychological dynamics.[17] In the absence of a firmer understanding of empirical and metaphysical aspects of these matters of the mind, defining contours of its legal protection could be conceived as futile. But it is not. Most importantly, one should recall the func-

[17] A right to mental self-determination does not rely on a particular view on the mind-brain relationship. While dualists won't object to mind-brain distinctions, reductionists may agree with the protection of physical processes *as identified* by their (reducible) mental properties. All that needs to be accepted is that protection of mind- (or brain-)states cannot follow the same normative rules as the protection of the integrity of other parts of the body. Unlike the latter, the mind (and its correlative neuronal processes) is highly dynamic; negative changes in mental phenomena are hardly describable as detrimental on the physical level. An analogy might be drawn to data-protecting provisions. Erasing a computer's hard disk does not damage the disk itself but the (supervening) information, and hence, standalone data-protecting provisions are needed.

tion of rights. Unlike in the free will debate, a right of mental self-determination is *not* so much concerned with the (perhaps deterministic) relation between mind and brain but between different persons. Rights primarily regulate inter-personal relations, not intra-personal psychological conditions and external, not internal impediments. Thus, mental self-determination is to be understood in contrast to heteronomy, neither requiring nor presupposing self-determination in a strong sense.

Just as any other right, cognitive liberty has several dimensions: First, the *liberty to* change one's mind, permitting to attain or discard any mental state and exercise one's mental capabilities. It also comprises the choice of whether and by which means to change one's mind, i.e. it entails a *prima facie* permission to use mind-altering tools like NEs as well as to refuse them. Secondly, it protects against interventions into other minds to preserve mental *integrity*. Moreover, the right protects against other interferences with mental self-determination, most notably "mental duties" such as prohibitions of having particular mind-states (e.g. Orwellian thought crimes).[18] Therefore, both prohibitions of NE as well as mandatory NE constitute interferences with cognitive liberty.

These interrelated but not identical dimensions pertain primarily to the negative freedom from interferences and stipulate duties on others to refrain from mind-changing interventions.[19] But thirdly, there is even a positive side that obliges states to *promote* cognitive liberty. Constitutions vary widely in the extent of positive duties and usually grant governments wide margins of appreciation. However, in view of the absolute protection of freedom of thought and the core personality, states might be obliged to provide necessary resources to persons lacking a bare minimum of necessary capacities, e.g. patients in minimally conscious states or suffering from Alzheimer's disease. But I shall leave these more specific questions aside here and, instead, try to convince NE opponents why they too should recognize a right to cognitive liberty.

X.5.2 Why Critics Should Embrace Cognitive Liberty

Critics worried about mounting social pressure ground their case against NE on precisely the interest guaranteed by cognitive liberty. By calling for protection

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[18] Whether (and to which extent) enhancements raise the "standards of reasonable care" is currently being discussed (Vincent 2012; Danaher in this volume). As standards of care are not empirical facts but normative judgments, they have to observe the right to cognitive liberty. Regularly, CL should prohibit stipulating legal expectations that others (e.g. pilots) take NE in order to discharge their duties (at least, without consent). Greater factual powers do not automatically lead to greater normative responsibilities. Exceptions might apply in severe, life-threatening circumstances (e.g. military).

[19] For the sake of argument, it is assumed that fundamental rights apply not only to the state-citizen, but also the citizen-citizen relationship. Positive and negative liberties in this sense do not precisely match Isiah Berlin's famous distinction.

against soft 'coercion,' they recognize that there is a sphere worthy and in need of legal protection: The mind. Let us consider this argument more formally. Critics will endorse some weak claims without hesitation:

(1) No one shall expose other people to psychoactive substances without consent. For instance, secretly spraying Oxytocin, a neuropeptid that modulates interesting behavioral properties (Fehr et al. 2005), or pouring NE into someone else's coffee should be illegitimate. Therefore, critics will concur with the idea that there should be an obligation toward everyone to refrain from intervening into other people's minds in these ways.

(2) This obligation is of legal nature, i.e. if someone intervenes into another person's mind, he ought to be stopped, not only by appealing to his moral standards, but also, if necessary, by resorting to coercive state measures. Thus, there should be a legally enforceable obligation to refrain from exposing others to NE.[20]

(3) At least for many legal theorists, rights and duties are correlatives, i.e. by definition, rights are entities which create duties for others, and legal duties arise if (and arguably, only if) someone else has a right.[21] In our present case, the right is a claim right, conferring to the right-holder a legally enforceable claim *erga omnes*, against everyone, to respect the protected interest (i.e. to not intervene into her mind).

(4) Closely related is another claim that critics will support: No one should have a claim against another person that the latter enhances herself (i.e. a legal obligation to enhance oneself), or: No claim of anyone against another person to NE. If no one has a claim against a person to X, then the latter is not under any obligation to X, i.e. he has a liberty to not-X. Thus: No one has to enhance herself.

While the former points should not be controversial, the following might: Who is the holder of the right and what interests does it protect?

(5) The right can be held by either the individual or the state. The difference becomes obvious when asking who should be competent to consent to infringements. Should the affected individual or the legal community have the power to grant permission for mind-interventions? Particularly those concerned with societal pressures should argue for strengthening individuals' (legal) powers to protect them against (overwhelming) external forces. Even if, at the moment, the majority of people and, by extension (if representation works) parliament, might object to NE, this is anything but a stable basis to dispel worries. For one, consequentialist thinking may well prevail over current skepticism if NEs have tolerable risk-profiles and promise economic advantages. Additionally, even benevolent states seek to stabilize society and further important interests which may, in their view, outweigh objections by affected persons (e.g. "moral enhancements" inducing

[20] For an introduction to a theory of rights see Thomson (1990).

[21] Concededly, there may be imperfect duties, i.e. duties without correlating rights, e.g. those owed to children, animals or future generations. However, the latter are arguably *moral* duties only, and children can be considered as fully right-bearing persons with their legal guardian(s) exercising their rights on their behalf.

pro-social behavior, cf. Douglas 2008; Shaw in this volume). Placing the power of regulating minds, consciousness and neurotechnologies in the hands of the state instead of the individual creates, in the best case, a delusive sense of security and, in the worst, a carte-blanche for governmental mind-control. Therefore, it has to be a right of the individual against other persons and the state.

(6) Hitherto we have an individual's right against everyone to not interfere with her mind and to not make any regulations commanding her to do so. Now we need to take a closer look at the content of the right. If it is an individual's right, then the right-holder can relinquish it, i.e. consent to infringements and thereby *allow* others to interfere with his mind. And if others are allowed to interfere with her mind, the right-holder herself has to have the same permission *a fortiori.* In this formulation, the right is a liberty to mental self-determination.

However, this is precisely the liberty unwillingly granted by critics. Thus, they have to put forward a different formulation of the right, encompassing only the *integrity* but not the self-determination dimension. They would need to argue that even right-holders cannot relinquish and consent to infringements of this right, without arguing that the right is not held by the individual (see point 5).

To their assistance it should be noted that from prohibitions on others to bring about a state of affairs (X), one cannot straightforwardly deduce a respective permission of the right-holder to X. For instance, from the prohibition on others to kill you, a liberty to commit suicide does not necessarily follow. A legal system prohibiting any form of ending human life, including one's own, is logically conceivable. However, rights which do not entitle the right-holder to waive them are a special kind of rights, *inalienable* rights. It is questioned whether these rights are rights or liberties in a strict sense as they only stipulate prohibitions without correlating permissions of right-holders (see e.g. Harel 2004). Sometimes courts invoke such rights with respect to supreme interests such as life or human dignity. But on closer examination, it seems that what is really protected in these cases is not the interest of an individual, but something like a collective taboo of taking life or violating dignity. If one accepts that the prohibition of unwanted mind-interventions protects primarily an individual's interest, this line of reasoning is blocked. The only remaining solution is to construe an inalienable duty of right-holders against themselves, but whether any such legal (not moral!) duties can be cogently established is highly controversial.

Moreover, even critics would concede that the mind-protecting norm for which they argue is at least sometimes waivable - when it comes to therapeutic mind-interventions. Thus, they have to allow for exceptions (and argue for their consistency). Ironically, to meet the argumentative threshold, the inalienability argument would commit critics to not only endorse cognitive liberty, but even more, to elevate it to the ranks of the strongest rights. It should have become apparent by now that whoever wants legal protection against NE does subscribe to the idea of cognitive liberty. And any formulation of such a right not entailing mental self-determination – albeit not logically impossible – faces serious obstacles. What one can argue about are its limits for paternalistic or social reasons.

X.6 Limits of Cognitive Liberty

X.6.1 Different Ways to Change One's Mind

The limits of cognitive liberty, it seems, can be drawn meaningfully only by distinguishing between means of changing minds. They fall into four normative distinct categories:

(1) Mental actions – those mental actions purely directed at psychological changes – thinking, dreaming, remembering, memorizing, etc.

(2) Bodily actions, from yoga to sports, in virtue of their mind-altering effects.

(3) Tools and Substances, from drugs to books.

(4) Interaction with the outside world, including other persons.

The reason for these distinctions is not that internal alterations (as 1 and 2) are intrinsically better or worse than external interventions (cf. Levy 2007), but that they impact others and the social sphere differently. By their very nature, actions of the last category involve interaction with the environment, potentially collide with interests of others and thus have to be restrictable to a larger degree than internal alterations. After all, other persons cannot be legally coerced into interaction with someone just because it benefits the latter.[22] Current legal provisions (e.g. the right to develop one's personality) provide adequate protection for these activities. On the other end of the spectrum, mental activity (1) as such, as we have seen, never directly collides with legally-protected interests of others. If at all, it does so indirectly "through the individual" in Mill's sense. Thus, mental actions of this kind are essentially self-regarding and should enjoy strong protection (if restrictable at all). The same applies to bodily activity (2). If there is some truth to "embodied cognition", distinctions between mental and bodily activity are hard to draw. Moreover, research suggests that bodily activity may have some cognitive enhancing effects (Dietz in this volume). The only normatively relevant differences between (1) and (2) are environmental aspects. As long as the movement of the body in space does not collide with rights of others, bodily activities need to enjoy a protection similar to (1). Therefore, e.g. banning falun-gong, other meditative practices or sports in virtue of their mental effects seems illegitimate (paternalistic arguments notwithstanding). For present purposes, this leaves us with discussing the limits of (3). As said, treating (3) as similar to (4) obscures the facts that the transformative actions as such regularly do not interfere with the outside world and that their effects are normatively closer to (1) as they primarily change the inner world. Even with the concession that mind-changes via tools are not an

[22] As always, exceptions apply in special normative relations, e.g. parents-children.

exclusively self-regarding affair, they need to enjoy considerably stronger protection than (4).[23]

X.6.2 Balancing Countervailing Rights

As with any non-absolute right, interferences with cognitive liberty can be justified by opposing rights or interests. When different rights collide, they have to be reconciled by balancing (for the German approach see Alexy 2003). Balancing rights is guided by the idea that countervailing interests should be realized to the greatest extent possible and freedoms should be curbed in the least invasive manner (principle of proportionality). In the end, this is a case-by-case decision based on a measure's positive and negative effects and the intensity of interferences. However, balancing partially depends on the abstract weight assigned to specific rights. Some are by default stronger than others, rendering them restrictable only if negative consequences to the latter are severe. In principle, cognitive liberty should be considered one of the strongest rights possible. The different ways of changing minds allow for finer graduations: While mental actions (1) are hard, the use of mind-altering tools (3) is easier to restrict.

The intensity of the interference depends on various factors. Another abstract distinction can be drawn between outlawing specific mental states as such and banning the means to their attainment. The former would create mental duties proper, the legitimacy of which e.g. Kant would deny. At least, mental duties are extremely hard to justify. Regarding the ban of specific means, the intensity of the interference depends on the availability of other means to attain (sufficiently) similar states. If there aren't any (e.g. psychoactive substances yielding rare insights into subconscious phenomena), blocking the means might be tantamount to blocking the destination itself, which intensifies the interferences and calls for stronger justificatory reasons. Thus, the more peculiar the effects of substances, the higher the requirements for their ban. Additionally, the legal importance of the altered mental phenomena has to be assessed. An increased span of concentration may be useful, but less important than e.g. memory capacities (if items were otherwise lost). Eventually, any NE has to be assessed on its own. Now let's take a look at the other side of Justitia's scale: The countervailing rights potentially justifying infringements.

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[23] Blitz (2010) puts forward a different claim. Drawing on the extended mind thesis by Clark and Chalmers, he proposes that the protection of freedom of thought should be expanded to "activity that is […] the functional equivalent of thought" and therewith to computers, IPhones and other devices. However, this expansion eliminates the distinction between personality and property rights. While technical devices / data-storage need (and in fact, enjoy) legal protection, their protection is based on property rights. Even though machines might be functionally similar, freedom of thought can only be meaningfully construed in relation to the human mental realm.

X.6.2.1 Paternalistic Limits

Most legal systems allow limiting rights for paternalistic reasons, i.e. restricting freedoms in order to safeguard individuals for their own good. Paternalism is a classical issue and the familiar arguments and restrictions apply to mental self-determination as well. Society does not need to remain silent and turn a blind eye to people harming themselves and, hence, at least in the face of severe negative consequences, states can intervene. It is a different question whether criminal law is the right tool to enforce paternalism, i.e. whether self-harm can be penalized (cf. Feinberg 1986; Husak 1989; von Hirsch 2008). Current drug and substance-related offences (covering many potential NE substances) are often grounded in paternalistic reasoning. As long as other measures to prevent self-harm are available, however, criminalization contradicts the *ultima ratio* principle of punishment as a means of last resort. Also, if punishment is employed to avert self-harm, one should be careful that the cure does not become worse than the disease. The legitimacy of penalizing self-harm is much more problematic than current legal provisions suggest.

What may constitute severe self-harm with respect to NE? Strong side-effects of substances (like heroin) warrant restrictions. But if NEs live up to their promise, they have tolerable risk-profiles. Before substances are outlawed, other harm-reduction strategies need to be considered (e.g. restricted access under supervision by trained experts). An interesting theoretical question is whether persons lose their autonomy when acting from preferences induced by NE, i.e. whether they are responsible for their actions stemming from motives created through pills. If not, it could be argued that loss of autonomy constitutes harm in a normative sense and substances should be outlawed in virtue of this legal effect. However, usually enhancements do not undermine autonomy – rather, they will often increase it (Bublitz and Merkel 2009).

X.6.2.2 Limits: Common Good

Presumably the most challenging question is whether and which interests of the common good justify interferences with cognitive liberty. Especially transhumanists emphasize the social benefits of enhancements (Bostrom and Roache 2011). When NEs improve socially relevant mental traits (e.g. increasing IQ and productivity), the common good perspective may indeed speak in favor of their use. On occasion, e.g. in regard to delinquent behavioral dispositions, some sides of the political spectrum may even call for their mandatory use (e.g. pro-social enhancement of criminals, cf. Shaw, this volume). In other cases, however, what is in the interest of the individual may be detrimental for society. Mood enhancements, in particular, could alter the psychological foundations of culture and society. Huxley's *Brave New World* vividly depicts this dystopia: The mood enhancement Soma is free of health-risks but poison to numerous collectively held values. Consumers drug away their doubts and weaknesses, suppress their inner contradictions and likewise their ambitions; they lose their depths and difficulties

out of which personalities develop. Criticism is replaced by complacency, sincerity by superficial happiness and the mental make-up of society is transformed at large. Instead of tackling problems at the social level, the origins of discontent are located and treated in the maladapted individual. What is cured are symptoms, not causes. However, reading *Brave New World* along these lines overlooks the context of an authoritarian regime that engineers society and citizens (even before conception). To demonstrate that Soma's negative effects are largely due to social context, Huxley presented a positive vision of psychedelics being used for enlightenment in his novel *Island*, in which he anticipated some of the ideas more thoroughly formulated later in the 1960's. In this positive vision, mind-expanding drugs become tools for achieving a more peaceful and harmonious but by no means quietist society. In their own way, each novel demonstrates the huge influence substances can have on society, but also how pharmacological effects in turn depend on the social settings in which their use is embedded (Schermer 2007).

This relates to the interplay between technology and society in general. It would be naïve to assume that society and technology co-emerge, as it is often called, in a neutral fashion. As the philosopher Feenberg (2002, p. 3) remarks: "What human beings are and will become is decided in the shape of our tools no less than in the actions of statesmen and political movements." The interesting observation, then, is that such profound changes can be brought about by individuals' choices over technologies rather than by collective decisions. Neither the use of cars, computers and the World Wide Web nor their consequences have been approved of in a collective and democratic procedure. Slowly, yet powerfully, they crept into our lives and transformed them tremendously. In light of democratic ideals, this might constitute reason for concern. And NE, in particular, might be among those technologies many people would utilize for personal gain while not approving of their society-wide use. In such circumstances, the societal effects of technologies mandate democratic legislators to regulate their use. Nevertheless, enforcing societal values against the will of affected persons has to meet high standards. Detriments to society have to be severe, perhaps undermining the psychological roots of collectively valuable mental states such as guilt, empathy or solidarity. After all, society's "state of mind," the fabric from which social relations are woven, is barely understood, nor are the effects enhancers may have on it (Merkel 2007, p. 287). The difficulties with protection and promotion of socially desirable mental states can be illustrated by two currently discussed interferences with memory.

X.6.2.3.Blunting and Enhancing Memories

Suppose novel NEs enable soldiers to wash away their sins and pangs of remorse not by repentance, but by blocking the emotional side of recollection. This might be partly realizable in the future (Kolber 2006). There are but few things conceivably more horrendous and disgusting than human killing "machines," soldiers with a clean conscience. Perhaps this is as far as one can deviate from universally-shared conceptions of a moral being, reminiscent of the symptoms of

psychopathy. In spite of this, if the killing is justified, e.g. in self-defense or a "just" war (if there is any), it is hard to see why agents should be legally obliged to face the mental consequences of their deeds. Perhaps there is a *moral* obligation to suffer from taking another's life regardless of its permissibility, but it is quite unclear whether a corresponding *legal* duty exists. How could states command soldiers to kill, yet deny them the means to come to terms with their actions in the name of a social expectation to suffer from killing? Should they bear the cost of trauma for something others have commanded? Soldiers may be deemed as having consented to mental injuries sustained in action by enlisting, but this consent can hardly take away their rights to mental health and cognitive liberty outside the battlefield. Obliging them to live through the negative mental consequences because *others* want to live in a society in which killing is accompanied by mental turmoil constitutes an act of securing collective values at the expense of the individual. Obliging culpable offenders, by contrast, to come to terms with their deeds by consciously grappling with and suffering from them can be understood as part of their sentence, as rehabilitation is among the prime peneological aims.

The same skepticism about public interests is warranted when they speak in favor of using enhancements. Klaming and Vedder (2010) have recently suggested that the common good perspective should play a stronger role in the enhancement debate and have exemplified their case by the use of memory enhancing technologies in eyewitnesses. As improving witnesses' capacities for recollection promotes public interests, they argue in favor of the use of transcranial magnetic stimulation (TMS) in police interrogations or courtroom procedures. Here, it becomes obvious that arguments based on societal benefits often stand in direct opposition to cognitive liberty. While the ordinary obligation of a witness to give testimony is a minor and justifiable infringement on her rights and although the efficacy of law enforcement is an important good in democratic states, intervening into minds to further police and state interests is quite another, much more invasive and dangerous measure - not so much because of side-effects, but because it grants governments access to the inner realm of persons for state purposes. The history of innumerous governmental attempts to change citizens' perceptions of the world throughout the ages provides a cautionary tale of what might happen if public interests are emphasized too strongly. Fortunately, under German law, the administration of "truth-sera" or the like in both suspects and witnesses are considered violations of human dignity.[24] And even if TMS turns out to be less harmful, calling for its use would signal embarking on a dangerous path.

Having said this, the vigorous appeals by some ethicists to enhance mankind in order to avert an ecological catastrophe and to tackle the great global injustices deserve attention (Persson and Savulescu 2011). Here, I can only note in passing that many such arguments exhibit a tendency to overemphasize the level of the individual and to downplay social and political conditions. It appears naïve to diagnose the cause – and respectively, the proper cure – of today's global problems in

[24] Cf. § 136a StPO (German Criminal Procedure Act).

individuals' mind-sets. None of these problems seems to be due to a lack of human intelligence, nor should we hope for technological fixes for social problems. It seems quite obvious that the affluent countries have to, *inter alia*, drastically cut down overproduction and CO_2 emission and to abandon the ideological belief in incessant economic growth (and recognize it as among the roots of the problem). The true obstacles to this, it seems, are undemocratic market economies and imbalances in power – but not in brain chemistry.

X.6.2.4 Fairness

In public debates, fairness concerns are often raised. A fair and just society certainly ranks among the most foundational interests and may, in general, warrant intensive restrictions of liberties. Most fairness objections in the NE debate, however, suffer from unclear conceptions over what constitutes fairness with respect to mental capacities. This issue is beyond the scope of this chapter, but let me briefly remark that worries over NEs rendering a (by large) fair situation unfair overlook the fact that natural processes and social conditions do not distribute "mental wealth" and opportunities in accordance with any theory of justice (Savulescu 2006; Greely et al. 2008). Whether NE worsens or improves, this deficiency partially depends on empirical facts (efficacy, pricing). And of course, fairness concerns could be addressed by distributing NE in line with a theory of a fair distribution of mental capacities (Sandberg and Savulescu 2011).

The often-drawn analogy to sports also falls short of providing an adequate model of fairness. Notions of fairness in sports are inextricably linked to the "spirit of sports" which glorifies natural abilities and is founded on a system designed with the sole purpose of producing a hierarchy of winners and losers out of contestants. Sport is essentially the creation of competition for its own sake. Even though one may (unfortunately) describe some spheres of society in similar terms, the idea that sports may serve as a model of a fair and just society is to be strongly resisted. At best, some constellations are structurally and normatively comparable, e.g. exams in state universities. The right to equal treatment, at least as understood in German Constitutional Law, prohibits treating "unlike cases alike." Grading non- and enhanced students by the same standards would, arguably, violate equal treatment (Bublitz 2010). Yet, this is an exception because a legally-binding notion of equality exists for this particular case. For society at large, NE can only be assessed in reference to a general theory of justice. In capability approaches to justice (Robeyns 2011), NEs might fare well as they increase real opportunities despite potentially increasing inequalities.

X.6.2.5 Limits: Rights of Others

The strongest right to justify interferences with a person's right to cognitive liberty then is, perhaps surprisingly, the cognitive liberty of another, that is, other persons' rights to refuse NE. Quite likely, social and economic pressure will let those who refuse face severe negative consequences, and the main challenge may

very well consist in realizing the demand made by Greely et al. (2008, p.703): to protect unwilling persons from 'coercion.' In one of the first papers on the ethics of NE, Farah et al. (2004, p. 423) asked whether it is legitimate to "den[y] people the freedom to practice a safe means of self-improvement, just to eliminate any negative consequences of the (freely taken) choice not to enhance." More concretely, the question is to which extent nonusers should be protected against overt and subtle pressure. Any answer will have to strike a balance between the liberties to use and refuse NE. As they are different dimensions of the same right, both are of the same abstract weight. The pressure on some to take NE may warrant curbing the liberty of those who freely take NE if the negative consequences are severe (e.g. side-effects). Contrary to a widespread misunderstanding, it is not the pressure alone that justifies restrictions. This becomes apparent by considering behavioral interventions for enhancement purposes. If meditation, working-memory training or other nonpharmacological enhancers were effective (Dresler this volume; Dresler et al. 2012), persons availing themselves of these means may enjoy considerable advantages, which could potentially exert pressure on others. Still, banning working memory training or meditation seems inappropriate. Why? Because they do not have sufficiently severe negative consequences; hence, everyone can be normatively expected to make use of these techniques. To put it differently: The mere wish to not avail oneself of a technology and the resulting disadvantages cannot, by itself, justify its prohibition for everyone else. The same applies to pharmaceutical NEs: only if they have unacceptable side effects, social pressure is sufficient reason for curbing the liberty of those willing to take the risks. Thus, a threshold of acceptable risks is needed, eventually to be defined by the legislator.

One last point should be made: Increased cognitive capacities are*, other things being equal,* not a harm from which claims against others to abstain from NE could arise, or against which society should protect. Even if enhanced capabilities are not all-purpose goods and contravene some ideals of a good life (e.g. an anti-intellectual rural life), curbing others' liberty is not warranted. If there is no neutral measure as both permissions and prohibitions (dis-)favor particular conceptions of a good life, judgments have to be made. I suggest that the benefits of improved cognitive capacities are so evident that anyone pursuing other lifestyles will have to live with the consequences – becoming smarter is, by itself, not an unacceptable side-effect. By contrast, negative effects on personality, self-perception or on emotional capacities may justify restrictions. Subdued, unstable or dulled emotional capacities would be too high a price that other persons can be expected to pay for increased cognitive performance.

X.7 Conclusion

The foregoing is a legal framework in which regulations of NE have to be embedded. Surely, democratic governments have leeway in the assessment of goals and regulation of means. They can en- or discourage the use of NEs; provide or

restrict access; support or impair research; define, in part, the realm of normal mental functioning, acceptable risks and the degree of permissible paternalism. These are political issues which have to be decided in light of ethical considerations over desirable mental states and the novel ways to alter them (Metzinger 2009). The law can only set outer limits and structural guidelines. Yet, it is important to recognize cognitive liberty as the basic freedom that restricts state-interferences with minds of citizens, and, hence, it cannot be ignored by anyone giving policy recommendations. As the right to both enhance and refuse to enhance one's mind, it is the central right to guide future regulations of neurotechnologies. Even though NE may primarily transform persons' inner domains, it cannot be considered as an entirely self-regarding matter, at least in a mental economy. Outside of competitive contexts, however, e.g. in psychedelic explorations of one's inner depths, there are few interests of society strong enough to justify restrictions. Harm-reduction, instead of prohibition, should be the default choice with respect to mind-altering technologies.

Thus, a liberal framework is well-suited to accommodate many worries over NE. Critics, too, should endorse a right to cognitive liberty as only strong legal protection of the mind guarantees that neither a transhumanist nor a bioconservative government can legitimately pass bills or enforce mind-invasive measures against individuals' wills. One does not have to be an apologist of a cold-hearted world of competition and capitalism in order to appreciate the idea of cognitive liberty. On the contrary, if one is worried about pressure to conform, the best answer is to strengthen rather than to curb the individual's legal as well as factual powers.

More generally, the call for a right to cognitive liberty underscores the need to reconsider the way society perceives and deals with matters of the mind. In Germany, mental problems of employees have risen to unprecedented heights (Hommel 2010). Stress, depression and burn-out are the symptoms of late-capitalist conditions, which constantly drive individuals to perform better and faster; and even outside of work-life, mental problems seem to be on the rise. Improving mental life requires taking the mind and its legal protection more seriously. This is what cognitive liberty stands for. Beyond any doubt, changing structural and societal conditions that lead to mental turmoil is necessary (albeit the extenuation of their structural causes in a globalized world is hard, perhaps impossible). Neurotools to improve one's psyche – from meditation to psychopharmacology – may be reasonable aids to cope with cognitive and emotional demands before mental disorders arise.

Nonetheless, I must add from the perspective of a criminal lawyer, the use of most substances for these purposes is currently punishable by law. The war on drugs costs thousands of lives, sends millions of persons to jail and contributes to the destabilization of states and regions, from Mexico to Afghanistan. In the end, these are the global consequences of the somewhat ideological rationale of preventing people from attaining altered mental states. At the same time, however, the use of these (and other) substances for therapeutic purposes steadily increases,

which leads to two diametrically opposed societal reactions to production and consumption of similar things – condemnation and persecution for non-therapeutic use vs. state-supported therapy –, demarcated only by the thin line between therapy and enhancement. In light of cognitive liberty, drawing such strict dichotomies between what is valuable and despicable loses some of its persuasiveness. Certainly, states should counteract the negative social effects of drugs and prevent people from unnecessarily harming themselves just as they should improve the factual conditions that imperil mental freedom, from addiction to stressful working-conditions. In the age of neuroscience, reasonable, fine-grained and coherent approaches to the various challenges that our inner domain of consciousness faces are needed. Even if all these problems were to vanish in that better world often alluded to by critics, cognitive liberty is not an obstacle, but an invitation to its creation; it is not a threat, but a reminder – especially to liberal thinkers – that legal freedoms are nice ideas, beautiful to look at, but hollow inside without social conditions enabling and empowering individuals to truly develop their personalities and pursue happiness.

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