CHAPTER 4

Freedom of Thought and the Structure of American Constitutional Rights

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Freedom of thought has long been a core value in American jurisprudence and that of other legal systems. (See Swain, 2021). Thanks to modern neuroscience—and the technologies it makes possible—it may soon also become a legal *right*. That is, the freedom to think might not only be something that we value and celebrate, but something that the judicial system needs to protect—and, in order to do so, more clearly define.

Consider two roles that rights play in American constitutional jurisprudence—and why it is that technological advances may require a right to play these roles in protecting our thought. First, rights generate a barrier of sorts—a judicially administered force field—that keeps state power from entering and exercising control (or monitoring what we do) in spheres where the state is not meant to be, often because such spheres have to be reserved for individual autonomy or privacy. The Supreme

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Court described this function of constitutional rights in the 2003 case of Lawrence v. Texas: There are "spheres of our lives and existence," it said, "where the State should not be a dominant presence"—spheres that are the realm of an "autonomy of self" and that encompass "freedom of thought, belief, expression, and certain intimate conduct." (Lawrence v. Texas, 2003, 562).

Second, there is another function of constitutional rights which is not to keep the state entirely out of a realm in which it has no place, but to protect certain interests (often in safeguarding individual autonomy or privacy) even when they become intertwined with activities *a state does have a need to regulate* (e.g., in protecting public health, safety, or some other interest of the public). Speech, for example, is constitutionally protected in the United States not only when it is in a book, e-mail, or other text, but also when it comes from protestors or pamphleteers whose actions can impact traffic or other aspects of the shared environment. Personal privacy is constitutionally protected not only when we are in our homes, but also (at least to some degree) when we travel on roadways or surf the World Wide Web and interact with other Web users.

Freedom of thought has had little need for either of these types of rights-based protections. But neuroscience-related technologies are changing this state of affairs. Consider first how brain scanning, brain-computer interface devices, and other technology may create the need for a strong barrier to keep government from manipulating or surveilling our thinking. Until now, this was largely unnecessary. As Justice Frank Murphy wrote in a 1942 Supreme Court opinion, "[f]reedom to think is absolute *of its own nature*" since even "the most tyrannical government is powerless to control the inward workings of the mind." (Jones v. Opelika, 1942, 618). As Frederick Schauer has written, "thought is intrinsically free. The internal nature of the thought process erects a barrier between thought and the power of government sanction." (Schauer, 1982, 93).

Of course, internal thought is often bound up with external action. The words we express are the product of, and also embody and convey, our thoughts—and non-speech conduct is also often preceded and guided by mental deliberation. Speech and non-speech conduct not only embody and result from thought, but they are crucial inputs to it. Most of the raw material for our perceptions and beliefs comes from the outside world—from books we read or speeches we hear, and from actions we take to generate those beliefs. So government can control thought indirectly by controlling the speech and other external conduct that embodies and

supports it. But while these outer manifestations of, or inputs to, thought have been shielded by free speech or constitutional protections for liberty of action, "the *inward* workings of the mind" have not required such rights-based liberty protection.

In an age of neuroscience and neurotechnology, however, this is unlikely to remain the case. Functional Magnetic Resonance Imaging (fMRI) and other brain imaging technology may allow officials to monitor and punish even thoughts that remain unexpressed. Emerging technologies, such as new kinds of mind-altering drugs and brain-computer interface devices, may let them manipulate our minds without censoring our words. As Jan Christoph Bublitz points out, freedom of thought is thus more vulnerable in an "age of neuroscience" where the state (or another entity) is "able to peer into the brains and minds of citizens and posses[s] the tools to alter thoughts, beliefs and convictions" (Bublitz, 2014). As Richard Glen Boire has stressed freedom of thought "can no longer exist in a Cartesian quarantine, blind to the connection between our thoughts and our brains." (Boire, 2004; See also Fox & Stein, 2015). Other scholarship has also analyzed the challenges raised by these technologies (See, e.g., Boire, 2001a, b; Sententia, 2004; Kolber, 2006, 2008; Stoller & Wolpe, 2007; Fox, 2008, 2009; Blitz, 2010b; Farahany, 2012a, b; Ienca & Andorno, 2017; Lavazza, 2018; McCarthy-Jones, 2019).

The most straightforward response to these technological changes is one that restores in law the *absolute protection* for thought privacy and integrity that was once provided by nature. As I have written in earlier work, "[t]o the extent fMRI or other brain-based mind reading technologies widen a crack in the wall nature erects around our thought processes, one might argue that the law should seal it up again." (Blitz, 2017). This would call for a fairly simple constitutional right: one which protects thought with an impermeable legal barrier against state interference or monitoring.

But this is too simple a model for a right to freedom of thought. It covers what we might think of as the "core" of such a right, but not the "periphery" or area outside of that core. As noted above, rights don't always simply keep the state entirely out of a certain activity. They also provide for more nuanced protection where the state *cannot* be entirely kept out of certain sphere—but is still prevented from doing any more harm, to expressive liberty or another liberty, than is necessary to further its legitimate interests (and perhaps allowed to act only when the state's interests are unusually strong).

This is more likely to be the case when the "inward workings of the mind" become accessible to the state not only because fMRI or other technology allows the state to *enter into* these mental processes in some sense, but also because our mental processes expand "outward" (or we come to understand ways in which they always have been external to our body in certain respects). Andy Clark and David Chalmers argue, in setting out their theory of the "extended mind," that the physical action that underlies our thinking may occur not just in our brain, but in the environment around it: When a person relies automatically on a smartphone or other computer, and not simply her natural biomemory, to store and retrieve important biographical or factual information, then that computer-stored memory may be just as integral to her mental life as the memories encoded in and retrieved from her neurons (Clark & Chalmers, 1998).

Some of this externalized thinking (or support for thinking), perhaps, merits absolute protection of the kind many assume must cover our internal thoughts. Private mental processes may otherwise become vulnerable to hackers or to the manipulation of companies that manage the links between computer-stored memory and the "cloud." (Carter, 2021; Carter & Palermos, 2016). Certain scholars have thus called for extending absolute or extremely strong protection of thought to cover threats presented by digital technologies. Susie Alegre, for example, has done so in arguing that it is not only the rise of such neurotechnologies, but also other aspects of the "digital age" that create the need for "a thorough assessment of what an interference" into thought "could look like." (See Alegre, 2017). Simon McCarthy-Jones likewise offers, in his chapter in this volume, arguments for robust protection of thought not only in the face of "brain reading" with fMRI and other scanning technology, but also "behavior reading" based on surveillance of our Internet activity (See McCarthy-Jones, 2021). But at least some of thought that is externalized in brain-computer interfaces or other mediums outside of the body may become intertwined with activity the state likely has to be able to monitor or regulate: If, for example, planners of a crime decide to move their planning from electronic or verbal communications (which can be monitored by officials with a warrant) to exchanges that occur through brain-computer interface devices, we should pause before assuming that freedom of thought will give them an impermeable privacy shield there.

This chapter therefore provides a sketch of certain features a jurisprudence of freedom of thought may have if that freedom is protected by

a more complex, multifaceted right. For reasons explained more fully below, the first step in providing such a sketch is to explain what it is that the right protects—its "coverage," "scope," or "domain." In *Stanley v. Georgia*, the Supreme Court of the United States said that the American Constitution makes it impermissible for government to "premise legislation on the desirability of controlling a person's private thoughts" (Stanley v. Georgia, 1969, 566). "Our whole constitutional heritage," it stressed, "rebels at the thought of giving government the power to control men's minds" (Id., 565). But what exactly constitutes "giving government power to control men's minds"? If, as the court has suggested, any exercise of such power would violate a constitutional right to "freedom of thought" or "freedom of mind" (Wooley v. Maynard, 1977, 714), what exactly does that freedom protect—or protect against?.[1]

What, as Bublitz asks, "is the content of the right – what falls under its ambit, which measures interfere with it?" (Bublitz, 2014). Is it really a single right? Or is it rather a set of separate related rights, each of which covers different interests and applies in its own way against specific types of interferences? In the American context, for example, a right against direct interference, or manipulation of, individuals' brain functioning may have one constitutional source, and set of legal implications. It is closely related to, and perhaps an extension of, the bodily autonomy protected by the due process clauses of the Fifth and Fourteenth Amendments. Government officials, one might argue, violate a different kind of mental liberty if they manipulate our thinking with external stimuli (such as with "subliminal" stimuli, to the extent that is possible, or with "dark patterns"on Web sites or other means of manipulating thought by manipulating our environment). The right to mental privacy is arguably different. Under current constitutional law, government generally has

[1] Frederick Schauer has likewise observed that "fMRI scans and other techniques of modern neuroscience" may "make inquiring into the topic of freedom of thought (as opposed to the external manifestations of that thought) more important now than would have been the case a generation ago" (Schauer, 2015, 444 n.78). In more recent work, Schauer has expressed skepticism about an "independent principle of freedom of thought," but, in doing so, "defer[s] for the time being the growing possibility that psychotropic, surgical, electronic, and other technological advances might increase the possibility of literally changing an agent's thoughts, and put[s] aside as well the possible technological techniques by which external forces might now or in the future actually know what I am thinking without my exhibiting any external manifestations of my thought" (Schauer, 2020).

more power to monitor what individuals say in Internet communications than to control the content of those communications, Constitutional privacy rights impose some constraint on government surveillance, but not an absolute barrier. Might there be a similar difference between the way (and extent) our constitution protects our mental integrity and the way it protects mental privacy? Moreover, even if we have a right against *others'* shaping or observing our minds, does this *also* mean we have a right to use cognitive enhancement tools, brain-computer interface devices, or other technologies to *reshape our own* minds?

In short, the law may offer very different freedom of thought protections for (1) our "mental integrity" or what some scholars call our right against mental "manipulations" or "interventions," – and may protect it differently when the threat directly targets the biology underlying thinking that when it shapes it with external stimuli (2) our "mental privacy," and (3) our right to voluntary mind modification.[2] Within these categories, courts might draw other distinctions: Law may respond one way, for example, when the threat of thought manipulation comes from government, and another when it comes from a corporation or other private actor. It may leave others—and perhaps even government officials—more freedom to shape others' thinking with education or through other communications of that kind the First Amendment generally protects than through more "direct" interventions into brain operations (See Bublitz, 2014; Bublitz & Merkel, 2014, 69–74). And even where surveillance or shaping of thought that is impermissible in most settings, some have explored the question of whether it should be permissible in unusual situations, where, for example, extraordinary national security interests are at stake (See Lavazza, 2021). Finally, there are numerous other distinctions one might draw within the different categories sketched above: Individuals might claim a right to technologically modify their own minds in a variety of ways—to reinforce their belief in a particular proposition, to change their emotions about another person or

[2] Other writers on freedom of thought have proposed different taxonomies for classifying its components. Ienca and Andorno, for example, describe it as consisting of a "right to mental privacy, the right to mental integrity and the right to psychological continuity" (Ienca & Andorno, 2017). Alegre describes it as including, at a minimum, the right not to reveal one's thoughts or opinions, "the right not to have one's thoughts or opinions manipulated; and the right not to be penalised for one's thoughts" (Alegre, 2017).

task, or to reshape their cognitive capacities or features of their personality, for example. That a right protects one of these modifications doesn't mean it protects others to the same extent and in the same way.

It is also conceivable that the legal protection freedom of thought receives in one jurisdiction will differ from that it receives in another. If and when American courts elaborate upon the First Amendment right to freedom of thought described in Stanley, or perhaps find it in other constitutional provisions, the right they elaborate may be different in its scope and application from that which European courts find in Articles 9 of the European Convention on Human Rights and Article 10 of the Charter of Fundamental Rights of the European Union.

These questions have been insightfully analyzed and explored in the emerging scholarship of freedom of thought—largely through the lens of philosophical thinking about what autonomy interests are at stake, and what justifications government might have to shape or monitor thought, or put restrictions on how we shape it ourselves. In this chapter, I look more closely at these questions about freedom of thought through another lens—namely that of American constitutional doctrines developed for more familiar constitutional rights: The First Amendment right to freedom of speech, the Fourth Amendment right to privacy from government surveillance, and the Fifth and Fourteenth Amendment right to bodily autonomy and other liberties.

In the first part of the chapter, I will describe a template American courts use to understand these constitutional rights that might also shape a future right to freedom of thought—at least as it develops in American constitutional law. I will describe key features of how courts have defined what Frederick Schauer has called the "coverage" of, and "protection" offered by, more familiar constitutional rights (Schauer, 1982, 89)-and explain how it is helpful to understand these two concepts together as often establishing a "core" and "periphery" within the coverage of each right. In short, the First Amendment doesn't provide a shield of equal strength (it doesn't provide the same level of protection) against all government regulation of expression. Rather, it protects what it has called "core political speech," for example, more strongly than it protects commercial speech (See, e.g., Meyer v. Grant, 1988, 420). It firmly blocks government officials from restricting, controlling, or punishing public debate in the streets, or on the Internet, but gives them far more room (albeit not unlimited power) to control the discourse that occurs in public schools or government workplaces (See, e.g., Connick v. Myers,

1983; Hazelwood v. Kuhlmeier, 1988). The Fourth Amendment likewise staunchly protects us in our homes and other private places (See Kyllo v. United States, 2001; Silverman v. United States, 1961), but protects it more weakly in many other settings—such as school hallways, in public employment, and as we travel on public roadways (See Delaware v. Prouse, 1979, 654; Skinner v. Ry. Labor Executives Ass'n, 1989, 625; Vernonia School District v. Acton, 1995, 668).

Second, I will consider how the above-described template might apply to freedom of thought and help us begin to make sense of its complexity—with two different possible approaches. First, an interest in freedom of thought might be important not because it gives rise to an independent right to exercise such freedom, but because of the way it affects courts' analysis of other more familiar constitutional freedoms: Free speech and privacy protections may be more robust when it is not just expression or freedom from surveillance that is at stake, but also our mental autonomy and privacy. Constitutional protections against state control over, or restraints on, our bodies may be stronger if the state is trying not only to control our bodies, but alter the workings of our brains (to control our mental processes).

Alternatively, an interest in freedom of thought can provide the groundwork for an *independent* right to that freedom. When courts elaborate this right, they may do what they have done in the jurisprudence of free speech, privacy, and other constitutional rights: distinguish between a "core," where the right is a strongest, and a "periphery," where it has power but is more likely to give way to other interests. This is at odds with how the right to freedom of thought is sometimes described- as a right that is *always* of absolute strength. But I will argue that where our claims to freedom of thought come with potentially significant costs to others (or make claims to resources that have importance for the achievement of other public purposes), this claim to absolute protection is unlikely to be plausible for courts—although certain components of our freedom of thought may offer protection that is close to absolute.

This might help to explain some of the examples, considered earlier, of ways that government might shape our thinking, or place limits on how we shape it ourselves. When officials limit our access to, or use of cognitive enhancement technology, for example, it may be that they are generally acting in what I am calling the "periphery" of the coverage of a right to freedom of thought. That is, such limits might apply in circumstances where government has significant interests—in protecting

health and safety—that may compete with, and sometimes override, the interests in mental autonomy that we pursue using thought-enhancement technology (See Blitz, 2016b, 2021).

That doesn't mean that regulation of such technology will *always* be in this periphery. Matters may be different when government engages in such regulation not with the aim of protecting our health and safety (and with a plausible account of how its regulation does so)—but rather with the aim that Stanley v. Georgia declared constitutionally impermissible: namely, the aim "of controlling a person's private thoughts" (Stanley v. Georgia, 1969, 566). In short, while certain means of mental manipulation—such as compelled psychosurgery—will likely *always* be constitutionally impermissible, other measures, such as depriving individuals of cognitive enhancement technology, may likely be constitutionally impermissible only when the government carries them out with an impermissible motive, or does so in a way that causes far more harm than necessary to autonomy interests.[3]

Third, I will also briefly discuss some additional considerations courts use in deciding what is at the core of a particular right and what is at the periphery. This is in part a matter of where the interests protected by the right (such the autonomy that underlies freedom of speech, or privacy at stake in Fourth Amendment interest) are at their strongest, and the countervailing interests, such as the safeguarding of public safety, are weakest. But it is also in part a matter of social convention: Interventions into our brain, or technologies that shape or observe our unexpressed thoughts, often intuitively seem like the gravest violations of any principle of freedom of thought not just because they cause more harm to autonomy than, say government surveillance of our Internet activities, but rather because they are invading an arena for our thinking where we have long been *used to* being insulated against government surveillance and control. Rights, in other words, often have a status quo bias: One important guide to how they will protect a certain interest is to understand how that interest has been protected in the past, legally or in other ways.

[3] In fact, this kind of "motive analysis" has already been suggested by Jane Bambauer as a way to test the constitutionality of government measures that interfere with freedom of thought by restricting individuals' acquisition of knowledge) (See Bambauer, 2014, 69, 87–89).

To be sure, any sketch of a jurisprudence that hasn't yet emerged is necessarily tentative. It would have been impossible for a writer in the mid-twentieth century to predict the contours of our current twenty-first-century Fourth Amendment law without knowing certain details about how smartphones store information or track movements in public space. Likewise, it is impossible to know how courts will analyze threats to mental liberty without knowing more about how these threats will develop. As Dov Fox points out, for example, brain scanning technology is likely to merit one constitutional analysis when it reveals "a subject's cognitive thoughts and propositional attitudes, such as normative judgments, religious convictions, and hopes or fears for the future" and a very different constitutional analysis when it reveals "the less privileged sphere of sensory recall and perceptual recognition" (Fox, 2008, 2). But to the extent that the large-scale structure of rights jurisprudence in American law remains stable—to the extent that courts continue to use certain techniques for defining the coverage and protection of a right, and tend to divide the coverage of each right into core areas that receive greater protection and other areas where protection is lower, it is at least illuminating to imagine how an emerging right to freedom of thought or "cognitive liberty" may fit this larger structure.

The Structure of Constitutional Rights

Coverage and Protection

In his work on First Amendment doctrine, Frederick Schauer proposes that scholars distinguish between what he calls the "coverage" of a constitutional right and the degree of "protection" that right offers against a type of government intrusion. Schauer illustrates this distinction by analogizing a right to a knight's "suit of armour" (Schauer, 1982, 89). "A suit of armour," he notes, will cover a person and in doing so, provide at least *some* protection to all parts of the body it shields. But that protection may not be absolute: It will protect "against rocks, but not against artillery fire." Still, Schauer points out, the lack of absolute protection doesn't mean that the armor is useless: "The armour does not protect against everything; but it serves a purpose because with it only a greater force will injure me" (Id.). Similarly, he writes, even when a right provides less than absolute protection, it still provides a barrier against government

restriction: It requires the government to provide a sufficient justification for regulating whatever is covered by the right (Id.).

Courts, therefore, often have to engage in a two-step inquiry when a challenger invokes a constitutional right—for example, by claiming that their right to freedom of speech has been violated. First, they have to analyze whether the conduct that the government is regulating falls within the coverage of the right. In First Amendment free speech law, for example, courts might ask whether the activity that government is restricting counts as "speech" within the meaning of the First Amendment. In many cases, the answer is clear. If government were to arrest a person for posting an anti-government message in a blog post, a social media message, or a newspaper editorial, there is no question it would be restricting speech. It would, thus, face a First Amendment barrier against such an arrest. Other scenarios present harder cases. Courts have struggled with the questions of whether (and, if so, when) the First Amendment's "freedom of speech" protects individuals who record public events with a cell phone camera (American Civil Liberties Union v. Alvarez, 2012, 595), disseminate computer decryption code that can allow others to duplicate copyright-protected movies (University City Studios v. Corley, 2001), design and sell cakes for customers buying them for weddings, birthdays, or other occasions (Masterpiece Cakeshop v. Colorado Civil Rights Commission, 2018), or provide psychological counseling that most psychologists view as ineffective and harmful (such as therapy aimed at changing individuals' sexual orientation) (King v. Governor of New Jersey, 2014; Pickup v. Brown, 2014).

In these cases, the coverage question is framed as being about whether a certain form of conduct constitutes "speech," protected by the First Amendment. The question is whether a certain activity, like cake design or dissemination of decryption code, is covered by the First Amendment's free speech "armour." But the Court's coverage question might instead be focused not on what government is restricting, but on aspects of the restriction other than its target (such as the government's motive or justification). Free speech law might protect a kind of conduct not as a general matter, but only against certain types of threats from government. A bomb threat, for example, is arguably not covered by the First Amendment. "True threats"—that is threats to commit unlawful violence—are not, as a general matter, constitutionally shielded from government restriction and punishment. But they *are shielded* against government restrictions driven or defined by ideological rather than safety

concerns: If, for example, government *only* prosecutes threats made by critics of the government and not its supporters, courts will generally find such ideologically-motivated speech restriction to be unconstitutional (R.A.V. v. St. Paul, 1992, 387–390).

Second, once a court is convinced that a certain type of conduct counts as "speech"—or that the restriction of counts as an infringement of freedom of speech—and is therefore within the coverage of the Constitution's free speech clause, it will then ask how much protection the First Amendment rights-holder receives. In modern American constitutional law, this level of protection is generally defined in terms of what courts refer to as a level or tier of "scrutiny." The strongest level of scrutiny government generally faces is "strict" or "exacting" scrutiny (See, e.g., United States v. Playboy Entertainment Group, 2000, 813; United States v. Alvarez, 2012). This is the kind of scrutiny lawmakers or other officials usually face when they seek to stop individuals from expressing certain ideas—or, in other words, try to suppress speech that has a certain meaning or content. It is almost impossible for government to overcome: Officials can suppress speech on the basis of its content only when they have a government interest of the most extraordinary weight—what the court calls a "compelling government" interest—and, even then, when they cause no more damage to speech than they need to in order to achieve that interest (See id.). By contrast, the level of protection is lower when government regulates speech in a way that is "content-neutral." For example, a city ordinance might bar anyone from entering a public park after 10:00 p.m. Such an ordinance places a limit on protestors or other speakers: It prevents them from holding a protest at a certain place and time. But its restriction isn't targeting particular speech content. It applies to *all* speakers (and other potential park visitors) in the *same way* regardless of what they might wish to say in the park—or whether they wish to say anything at all (See Clark v. Community for Creative Non-Violence, 1989, 295–296; Occupy Fresno v. County of Fresno, 2011, 863). Such speech restriction receives only "intermediate scrutiny." Officials only need a government interest of "substantial" or "significant" weight (not a "compelling government") interest—and their speech restriction needs to be substantially related to that substantial or significant interest, but the fit need not be perfect: They can overshoot a little, and restrict more speech than necessary to achieve the interest, so long as they do not restrict "substantially more" speech than necessary (See Ward v. Rock Against Racism, 1989, 799).

The level of protection provided by the free speech clause, then, is not uniform throughout its coverage. It will rather vary depending on the type of speech or feature of the speech that the government is regulating, or perhaps some other characteristic of the way that government is regulating it. Speech content is shielded against government restriction by the nearly impermeable force field of strict scrutiny. The time, place, or manner of speech is shielded by the weaker force field of intermediate scrutiny. A few categories of speech content are also shielded more weakly than is most speech content: When government regulates advertising or other commercial speech, for example, it faces only intermediate scrutiny—not the strict scrutiny it normally faces when it restricts speech content. And, as noted earlier, the First Amendment's protection also abates when government takes on the role of a school administrator or employer—and regulates the speech of students or workers to assure the institution it runs can operate (Connick v. Myers, 1983, 147, 150–151; Garcetti v. Ceballos, 2006, 417–418; Hazelwood v. Kuhlmeier, 1969, 366; Tinker v. Des Moines School District, 1969, 737).

Core and Periphery of a Right's Coverage

The protection offered by a modern constitutional right is often at its strongest in circumstances that courts often describe as being at that right's "core." There are different ways that courts define a right's core—but often, it is a sphere where it is clearest that government has little justification to be in, or where the individual interests it protects are at their strongest. In First Amendment cases, the Court has often said that the kind of discussion most clearly (and strongly) insulated against government restriction is "core political speech" (See, e.g., Buckley v. American Constitutional Law Foundation, 1999, 639; McIntyre v. Ohio Elections Comm'n, 1995, 334). If there is any speech that government officials should be barred from restricting, it is criticism of government itself—and other speech integral to the deliberation necessary for democracy to function. The Court has also made clear that, even outside of political communications, the ideas we express cannot be limited simply because government finds them offensive or—motivated by paternalism—believes it should substitute other beliefs from the ones we have formed. "Content-based laws—those that target speech based on its communicative content" the Court has said, "are presumptively unconstitutional" (Reed v. Town of Gilbert, Arizona, 2015).

Of course, when courts define a certain subset of speech regulations as striking at a core, they implicitly classify others as being outside of this core—or in what we might call a "periphery." Here, government receives far more constitutional leeway to regulate speech: It cannot do so to impose ideological orthodoxy or shut off audiences from views or ideas the government believes they shouldn't read or hear. But it *can* do so when it puts aside any pretension to act (in Justice Jackson's words) exercising "guardianship of the public mind" (Thomas v. Collins, 1945, 545) and instead protects individuals from the physical harms or concrete disruptions that might accompany expression (when it occurs through burning objects or blocking traffic), or stem directly from it (in incitement or threats). It can do so when, instead of trying to control what people choose to say in public discourse or private conversation, it acts to manage, maintain order, and fulfill the institutional purposes of a public school, government workplace, or other organization defined by a particular mission. In all of those circumstances, the government must still act under constitutional rules that bar it from restricting speech without sufficiently strong reasons—and reasons of the right kind (Blitz, 2016a, 703–705). But the level of First Amendment protection is reduced.

One finds a similar division between core and peripheral realms of protection in the Fourth Amendment law. The Fourth Amendment of the United States Constitution protects individuals against "unreasonable searches and seizures." As the Supreme Court has said, its bar on "unreasonable searches" is designed to protect individuals against "a too-permeating police surveillance" (United States v. Di Re, 1948, 581, 595). But this protection against police surveillance is not equally strong everywhere. It is at its height in the home. As the Supreme Court said in Silverman v. United States, at the Fourth Amendment's "very core stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion" (Silverman v. United States, 1961, 505, 511). Government officials can only search a home when they obtain a warrant from a neutral magistrate based on a showing of "probable cause" that there is evidence of criminal activity there. The Fourth Amendment extends the same staunch protection to other private spaces: Police must have a warrant to search through a person's purse or briefcase, or peruse the contents of her computer or cell phone (See Riley v. California, 2014, 386). But like the First Amendment, the Fourth Amendment's constitutional force field weakens as one moves away from this core: Law enforcement officers still need good reasons to search

cars on public roadways or to pat down individuals on public streets under circumstances where an officer has reason to believe that "criminal activity may be a foot" (Terry v. Ohio, 1968, 30). But they don't need to obtain a warrant. The same schools, workplaces, and government organizations that are given greater leeway to regulate speech than lawmakers have to censor it also have greater leeway than police to surveil students, workers, or others who play certain roles in their institution in order to protect the community's safety and functioning: Schools and workplaces, for example, have been permitted by courts to randomly test certain students and workers for drugs so long as the procedures they use include adequate protections for Fourth Amendment privacy interests (See Board of Education of Independent School District, Pottawatomie Cty. v. Earls, 2002, 837–838; National Treasury Employees Union v. Von Raab, 1989, 679; Skinner v. Ry. Labor Executives Ass'n, 1989, 625; Vernonia School District v. Acton, 1995, 664–666).

One might argue that this spatial metaphor for how to understand a right adds little to what I previously said in the more general discussion of coverage and protection—namely that certain types of conduct within the coverage of a right receive greater protection from government interference than do others (or that certain types of government interference meet greater skepticism and resistance from courts). We can conceive of the subset with greater protection as a "core" surrounded by a "periphery" with less protection. But we need not conceive of this variable protection in spatial terms (especially as there may be varied levels of protection within the "core" or "periphery" of a right).

Still, the spatial metaphor is helpful in framing our understanding of these rights—largely because, the explanation for *why* a certain realm lies at the core of a right frequently depicts that core as being on the "inward" side of a constitutionally significant boundary line that, as Heyman describes it, divides the "outward realm of the state" from "the inward life of the individual" (Heyman, 2002, 657). As such, it is less the state's business than what is on the "outward" side of the line. Certain First Amendment scholars have drawn upon this kind of imagery to make better sense of how First Amendment law works. Burt Neuborne, for example, sees the First Amendment as beginning "in the interior precincts of the human spirit"—in its protection for religious liberty and conscience—and then extends its protection "outward, preserving the freedom to convey information and ideas to others," in protection for communication, and for freedom of the press (Neuborne,

2011, 18–19). Neil Richards makes use of a similar spatial metaphor for First Amendment protection. He conceives it as "a series of nested protections, with the most private area of our thoughts at the center, and gradually expanding outward to encompass our reading, our communications, and our expressive dealings with others" (Richards, 2008, 408). Interestingly, both of these visions of the First Amendment as a series of concentric circles place individuals' thoughts and beliefs at its core.

Envisioning free speech law as having a core and periphery also helps us make sense of scholarly arguments that aim to protect the strength of First Amendment protection by assuring that its core protections aren't confused with—or weakened to resemble—its periphery. Some writers do so by warning against defining the First Amendment's core too broadly—so that it includes even speech that government might intuitively have good grounds to restrict.

James Weinstein does this, for example, when he warns against stretching the First Amendment's core to cover speech beyond that which is necessary to sustain participatory democracy. In accordance with the courts' emphasis on political speech, he places democratic deliberation, not the exercise of intellectual autonomy, at this core. He asks readers to imagine a scientist invoking the First Amendment to protect dissemination of instructions or diagrams for producing a biological weapon—and notes that many will feel that government should have greater leeway to restrict such speech in order to protect public safety than strict scrutiny generally allows (Weinstein, 2011, 391). The problem, he points out, is that the same leeway for government will be out of place, and dangerous, if it is extended to allow government greater power to restrict core political speech. Consequently, he says, a sound theory of free speech law should "reserv[e] the most rigorous protection for the speech by which individuals participate in the democratic process, while at the same time providing meaningful but more flexible protection for other important free speech values, including important autonomy interests." (Id.)

Freedom of Thought as a Component of Other Constitutional Rights

This chapter began by describing freedom of thought as a distinct constitutional liberty—one that can stand on its own. Judges have sometimes seemed to do so as well. Stanley v. Georgia, for example, spoke of a First

Amendment right against mental manipulation. Drawing on this case, the Seventh Circuit Court of Appeals, in Doe v. Lafayette, emphasized that there is "no doubt" that government "runs afoul of the First Amendment when it punishes an individual for pure thought" (Doe v. City of Lafayette, 2004, 765).

But there is another way this freedom might be a part of American constitutional law: It might exist not as a free-standing right, but only as a component of other, more familiar constitutional rights. It may, for example, be a component of free speech protection. Or a component of the Fourth Amendment's protection of privacy. Or the privilege that criminal defendants have under the Fifth Amendment to remain silent—when the alternative would be compelled self-incrimination. Or our Fifth and Fourteenth Amendment "due process" rights to be free from state interference with our bodily autonomy or other types of personal freedom deeply rooted in American society.

In fact, one might argue, a principle of freedom of thought may help explain why some state measures that potentially run afoul of these constitutional rights are likely to be seen by courts as striking at the core of these rights' coverage. In the Fourth Amendment context, for example, when a government measure doesn't only intrude into our privacy, but also gives officials information about our unexpressed thoughts—this may be a reason for courts to treat this as striking at the core of our Fourth Amendment interests even if the government surveillance is occurring outside the home—and in a setting where we normally have lower privacy interests. Imagine that government officials develop ways to conduct brain scans that can provide detailed inferences about the thought content of students in a public school setting, drivers at a road checkpoint, or travelers in an airport.

These are areas where courts have held that we have Fourth Amendment privacy interests—and receive Fourth Amendment protection against unreasonable searches. But they have held that suspicionless searches of a kind that are unreasonable elsewhere are reasonable there. Public school students participating extracurricular activities may be subjected to random drug testing (Board of Education of Independent School District, Pottawatomie Cty. v. Earls, 2002, 837–838; Vernonia School District v. Acton, 1995, 668). Drivers can be subjected to warrantless breathalyzer tests to determine if they are driving under the influence of alcohol or drugs (Birchfield v. North Dakota, 2016, 2177–2178). They can also have their car searched for drugs by a dog trained to alert when

it smells such drugs (Illinois v. Caballes, 2005, 408–409). And they can be stopped at a certain location and asked questions by law enforcement about whether they witnessed a recent accident at that location (Illinois v. Lidster, 2004, 427–428).

Airport security can and does conduct weapons searches on all individuals who enter an airport, not only those who they have reason to think might have weapons. But as I have written in earlier scholarship, that government can use suspicionless drug tests in schools and roadways, or use millimeter scanning devices to scan all travelers in airports, does *not* necessarily mean it could likewise use brain scanners to draw inferences about thoughts in the same situation (Blitz, 2017). We are normally *outside* the core of Fourth Amendment rights in these situations—even when government intrudes into our bodily privacy, as it does when it conducts random drug tests. But when government measures in these settings intrude upon our *mental* privacy, this arguably moves the government intrusion back into the core of Fourth Amendment protection—because it arguably gives government access to information that is more deeply private (and less the government's business) than information about whether we have a certain type of alcohol or another type of psychoactive drug in our blood (See Blitz, 2017; Farahany, 2012b, 1288–1289; Pustilnik, 2013, 12–15). A brain scan may require a warrant even in settings where government has generally been free to conduct warrantless (and suspicionless) searches of our clothing, a bag or package we are carrying, or our bodies (Blitz, 2017; See also Pardo and Patterson, 2013).

To be sure, this does not mean that *any* government collection about our mental state will necessarily trigger heightened Fourth Amendment scrutiny: A law enforcement officer who stops a driver on a roadway and asks her to touch her nose or who observes whether the driver is slurring her speech is, in doing so, gathering information which is intended to allow the officer to draw an inference about the driver's mental state—more specifically, whether the driver's concentration, decision-making ability, and awareness of her surroundings have been impaired by alcohol or some other drug. But where a law enforcement officer's investigatory methods entail a deeper intrusion into mental privacy—where they give the officer a window of sorts into thoughts that are normally not visible at all and perhaps are likely to be irrelevant for assuring road safety—then a court may well ratchet the degree of Fourth Amendment protection back up, and demand a warrant, or possibly even greater justification from the government, before allowing the search.

Some Fourth Amendment scholars have correctly pointed out that current Fourth Amendment case law on suspicionless searches does not give this kind of weight to mental privacy (See Farahany, 2012b, 1288–1289; Pustilnik, 2013, 12–15). But that courts have not yet emphasized mental privacy as a determinant of Fourth Amendment protection doesn't foreclose the possibility that they will do so. After all, Fourth Amendment protections in this area depend—according to the Court—on balancing of privacy interests and security interests—and where government is gathering information about our thoughts, the privacy interest may be much more significant (Blitz, 2017).

A principle of freedom of thought might have similar significance not only when government intrudes into our bodily privacy (in ways covered by the Fourth Amendment), but also when it constrains our bodily liberty (in ways also covered by the Fifth and Fourteenth Amendment). Just as government might face greater Fourth Amendment scrutiny from courts when it collects information from not just from our bloodstream but also from our brain, so it might face greater judicial scrutiny under the Fifth or Fourteenth Amendment when it exercises control over our body in a way that reshapes our mental operations. This is one lesson one might draw from a trio of Supreme Court cases addressing the question of when it is constitutional for government to compel prisoners or psychiatric patients to take anti-psychotic drugs against their will. In Washington v. Harper, in 1990, the Court asked whether a prison system could forcibly medicate a prisoner it deemed dangerous after a psychiatrist at the prison had authorized such treatment. The Court said in that case, that such compelled medication was permissible—but only where such a course of action served an important safety need and was found to be medically appropriate "by medical professionals rather than a judge" (Washington v. Harper, 1990, 231). In Riggins v. Nevada, in 1992, the Court found Nevada had acted unconstitutionally in compelling a prisoner to take anti-psychotic medications because it had failed to provide that "overriding justification and a determination of medical appropriateness" (Riggins v. Nevada, 1992, 135). In Sell v. United States, in 2003, it likewise found government officials had violated Sell's right to remain free from unwanted psychiatric medication when it compelled him to take this medication in order to make him competent to stand trial (Sell v. United States, 2003, 171–172).

The Court did not expressly state in these cases that individuals' constitutional rights to be free of compelled medication are stronger

when such medication shapes a patients' mental operations, and not only their bodily freedom. In fact, in each of these cases, the Court majority seemed to go out of its way to avoid any discussion of freedom of thought. In Washington v. Harper, for example, it was only the dissenting opinion by Justice Stevens that emphasized the constitutional significance of compelled use of anti-psychotic medications for freedom of thought (Washington v. Harper, 1990, 237–238). The majority opinion, by contrast, characterized the constitutional concerns differently. In discussing the Harper's interest in being free from such medication, for example, it stressed a general interest in being free from compelled medical treatment and the numerous physical side effects that can arise from the drug Harper was administered—including "tardive dyskinesia," "a neurological disorder, irreversible in some cases, that is characterized by involuntary, uncontrollable movements of various muscles, especially around the face" (Washington v. Harper, 1990, 229–230). When striking down the measures in Riggins and Sell, the Court added another worry—which was that compelled psychiatric medication would undermine individuals' right to a fair trial by changing how they (and their counsel) might defend themselves. However, as reluctant as the Court was to frame these decisions in terms of freedom of thought, one might still argue that they are partly explained by a concern for such freedom: The Court is, in all these cases (even Harper, where it ultimately allowed forcible administration of psychoactive drugs), raising a constitutional bar against compelled use of psychotropic medications.

In both Fourth Amendment search and seizure law, and Fifth and Fourteenth Amendment due process law, freedom of thought concerns then would strengthen the constitutional protection that normally exists against intrusions into bodily privacy, under the Fourth Amendment, and bodily autonomy, under the Fifth and Fourteenth. If government monitoring of a person's brain chemistry or brain function compromises mental privacy, government may need a warrant—even if it normally wouldn't for similar intrusions into bodily privacy (such as random drug testing in schools or workplace). If government-compelled medical treatment not only causes unwanted effects to a prisoner's body, but also to her thinking processes, it may similarly face a higher level of scrutiny.

Other provisions of the Constitution may also protect freedom of thought—because they protect the thought we express in words or images, and may also extend to similar protection to the words and images we silently contemplate (but do not express). The Fifth Amendment, for

example, gives to defendants in a criminal trial a privilege against having to testify against themselves—a privilege against self-incrimination. Even before a defendant has been charged with a crime, a defendant can exercise their "right to remain silent" in the face of police interrogation—and refuse to share information that might be used against them in a trial. Many scholars have argued that, if the government is constitutionally barred from forcing an individual to state incriminating words, it should likewise be barred from using brain scans or other technology to extract incriminating thoughts. Different scholars have given different versions of this argument. Some, like Dov Fox, Paul Root Wolpe, and Sarah Stoller have argued that forcing a criminal defendant to undergo *any kind* of neuroscience-enabled mind-reading would violate the privilege (Fox, 2009, 796; Stoller & Wolpe, 2007, 371). Others have understood the privilege to provide more limited protection against brain scans. Michael Pardo argues that the privilege bars compelled brain scanning that reveals "propositional content"—but not that which reveals psychological tendencies or characteristics (Pardo, 2006, 330). Nita Farahany argues that it bars government from obtaining evidence of unexpressed "utterances," but not most other kinds of unshared mental content (Farahany, 2012a, 366).

The First Amendment's protection for freedom of speech has likewise been understood by some scholars to protect freedom of thought. For some scholars, this is in part because individuals cannot be free to express themselves unless they are also free to engage in the thought that necessarily precedes such expression. As Neil Richards writes, one cannot protect "the marketplace of ideas" free speech is supposed to guarantee unless the law protects "the workshops" where "the ideas" in that marketplace "are crafted" (Richards, 2008, 396). For other scholars, protecting freedom of thought is not simply a necessary condition for freedom of speech—it is its central purpose. Rodney Smolla suggests that "the preferred position of freedom of speech" over other liberties can be traced to the fact that "speech is connected to thought in a manner that other forms of gratification are not" (Smolla, 1992, 11). Timothy Macklem writes that speech is integrally connected to thought and protected in part because of its role in shaping thought (Macklem, 2006, 11). (See also Blitz, 2010b, 1090–1094).

The most developed version of this "thinker-based" approach to free speech law comes from Seana Valentine Shiffrin. She argues that the central purpose of free speech protection is to secure "the individual

agent's interest in the protection of the free development and operation of her mind" (Shiffrin, 2011, 287, 2014, 80–83). Freedom of thought, she writes, is—along with "freedom of communication"—one of "two related and mutually dependent freedoms" that it makes sense to place under the "the label, 'freedom of speech'" (Shiffrin, 2014, 79). The protection of freedom of thought, on this account, covers more than just protection for communication. It covers "mental contents" such as "non-discursive thoughts, images, sounds, and other perceptions and sensations as well as the workings of the imagination" (Id., 81, 113–114). Moreover, the interests supported by this account extend not only to generating particular thoughts or having certain mental experiences, but to developing an individual personality, and developing certain mental capacities (Id., at 87–88). Thus, "at the foundation of free speech protection" is not only a principle that forbids constraints on "interpersonal communication," but also "other measures that disrupt the free operation of the mind" (Id., at 94).

The Supreme Court has also sometimes treated freedom of thought as the underlying purpose of freedom of speech. It has said that freedom to speak is one component of a larger "freedom of mind" (Wooley v. Maynard, 1977, 714). "The right to think," it later said, "is the beginning of freedom," and we protect speech because "speech is the beginning of thought" (Ashcroft v. Free Speech Coalition, 2002, 253). It is perhaps not surprising then that Stanley v. Georgia's warning against allowing government to "contro[l] men's minds" came in a case that was, at least on the surface, about protecting the defendant's freedom of speech (Stanley v. Georgia, 1969, 366). If this is right, then a restriction of speech—or access to information—that intrudes more deeply into freedom of thought might, for that reason, be subject to more exacting judicial scrutiny.

Even for judges who do not believe that freedom of thought provides the underlying rationale for freedom of speech protection, protecting thought privacy may sometimes be necessary to protect speakers' expressive rights (or the derivative right of audiences to receive information). Imagine, for example, that government uses certain forms of brain-based "mind-reading" to identify individuals with dissenting views—and then exclude them from participating in certain public forums so that their views will not reach wide audiences. Or imagine that government shares certain types of historical information or scientific data *only* with individuals who can prove they have views of which the current administration

approves. In these cases, government would be monitoring thoughts in order to identify and silence certain speakers, or deny information to certain readers. Its intrusion into mental privacy would likely be unconstitutional even if there were no constitutional right to mental privacy per se—because government would be using such mental surveillance to restrict speakers, or audiences seeking speech.

Treating a right to freedom of thought as a component—or variation—of another more familiar constitutional right would make it simpler for courts to spell out the constitutional implications of brain scans, cognitive enhancement technologies, or brain-computer interfaces. Rather than build a freedom of thought jurisprudence that doesn't yet exist, they could instead *refine* bodies of jurisprudence that *do*. And in making adjustments to search and seizure law or free speech law, for example, they might be guided by reasoning they have already used to adapt these areas of law to the destabilizing effects of other emerging technologies—such as cell phones, social media and other Internet communications, or GPS location tracking.

It might also, at least in the context of American constitutional law, provide a method of addressing the challenges with which the chapter opened—namely how might a jurisprudence of freedom of thought provide distinct protection against mental manipulation or mental privacy, or respond in different ways to government interference in our minds, or restraints on how we shape our own minds? Rather than answer such questions on a blank slate, one might argue, courts might instead ask whether and how each of the different protections for our mental freedom fit into an already-recognized constitutional right. Mental privacy, for example, might receive protection only to the extent it is protected by the Fourth or Fifth Amendment against law enforcement monitoring or extraction of our mental content, or protected by the First Amendment to protect the belief underlying speech. Our right to shape our own thought might sometimes fall within the coverage of the First Amendment's shield for formation and expression of beliefs and sometimes come within the different protection the Fifth and Fourteenth Amendment arguably offers to means by which we educate ourselves and shape our personal capacities.

But constitutional scholars should consider the possibility that a right to freedom of thought might exist as an *independent* right. The rise of new neuroscience-based technologies, or digital means of mental manipulation, might give rise to new threats to our mental autonomy in the twenty-first century for which the jurisprudence of the twentieth provides

no answers. It is largely for this reason that Richard Glen Boire and Wrye Sententia proposed that courts protect not merely "freedom of thought" as traditionally conceived, but rather a broader right to "cognitive liberty." As Sententia defines it, this is a liberty that "updates notions of 'freedom of thought' for the twenty-first century by taking into account the power we now have, and increasingly will have, to monitor and manipulate cognitive function" (Sententia, 2004). Boire describes it as entailing a "right to control one's own consciousness" (Boire, 2000a)—and to do so using means that go beyond speech (including through pharmacological alteration of thinking patterns) and with protection from interference with thought that takes forms other than traditional censorship. Nita Farahany also argues for cognitive liberty protections—perhaps in the form of legislation rather than constitutional rights—to fill gaps that she identifies in the protection that current Fourth and Fifth Amendment law offer for mental privacy. (Farahany, 2012a, b).

As I have argued in earlier scholarship, First Amendment law might provide a "backstop" of sorts for some of these constitutional gaps (Blitz, 2017; See also Solove, 2007, 116–117)—especially when it is conceived broadly, as Shiffrin understands it, as entailing constitutional protection not only for communication, but for our "capacities for thought" and for "liv[ing] an autonomous life" (Shiffrin, 2014, 80). But even if such a right to freedom of thought finds a home in the First Amendment, it might be a right that is in many respects distinct from that of a right to free speech—and that requires a First Amendment jurisprudence extending substantially beyond that which courts have developed. This is especially true for what the chapter earlier called a "right to voluntary mind modification" with emerging technologies. Individuals, of course, have long-established First Amendment right to modify their thoughts by engaging in conversations, reading books, or watching movies. The Court has extended this right to video game play—and this extension arguably covers video games that reshape one's mental functioning with virtual reality interactions, neurofeedback, or other brain-computer interface technology (See Blitz, 2008, 2010a, 2018, 2021). But the right to modify one's thought with machines or other technologies (or consent to letting others engage in such modification, in psychotherapy, for example)

(See Blitz, 2016a; Haupt, 2016; Smolla, 2016) has received little analysis in existing constitutional jurisprudence.

Freedom of Thought as an Independent Right

A. Freedom of Thought as an Absolute

How then might we understand a right to freedom of thought as an independent constitutional right? How might courts define its coverage? Some cases appear clear-cut. Compelled neurosurgery aimed at reshaping our mental processes to government's liking would almost certainly implicate such a right[4] (See Kaimowitz v. Michigan Dep't of Mental Health, 1974; Winick, 1989, 19, 26). So too, if it were possible, would use of subliminal messaging to surreptitiously cause us to think or feel what the government wants us to think or feel (Bublitz & Merkel, 2014, 69–70; Scanlon, 1979). But other types of thought manipulation might raise more difficult questions: Would a person's right to freedom of thought be implicated by required education or training programs? Would a person be able to invoke such a right not only to insist that her mind remain free of manipulation by government, but also to modify her own mental functioning without government restriction (with drugs, BCI devices, or other technology)?[5] Moreover, even if a right to freedom of thought covered all of these circumstances, what level of protection would it offer?

There is perhaps more consensus on the level of protection that should come with a right to freedom of thought than there is about its scope or coverage. In short, freedom of thought is often described as an "absolute right" (See, e.g., Alegre, 2017; Richards, 2008, 2015). Frederick Schauer describes how we should understand such an "absolute" right in terms

[4] Any compelled surgery—of the brain or any part of the body—might violate American constitutional protections of physical liberty.

[5] In previous scholarship, I have explored different possible ways of understanding the "coverage" of a right to freedom of thought in American law. See Blitz (2008, 2010b, 2016a). Other legal scholarship has also explored similar questions. See also Shiffrin (2011, 2014), Bambauer (2014, 2018), and Kolber (2006).

of protection and coverage. "We may wish," he says, "to structure our rights such that protection is always absolute. The decision on coverage would be dispositive of protection, because no reason for restriction could outweigh the protection of the right" (Schauer, 1982, 90). If this were true of freedom of speech doctrine, for example, then any human conduct that counts as "speech" under the First Amendment would be *completely off-limits* to government regulation (or, alternatively, any government restriction that counts as the kind of restriction of speech to which the First Amendment presents a barrier would *always* face an *insuperable* barrier). Similarly, where an absolute right to freedom of thought applied (that is, where a certain activity or government restriction of it was within its coverage), government regulation would invariably be impermissible. To use other terminology above, the right would be all "core" and no "periphery."

As noted earlier, this is *not* true of modern First Amendment free speech doctrine. Certain writers have argued it should be—that free speech protection should be limited only to its core. In his 1961 article, *The First Amendment is an Absolute*, Alexander Meiklejohn made essentially this type of argument. Even though freedom of speech is not absolute in the sense of allowing anyone to say anything in any setting (or in any way they like)—it *is* absolute if one defines this freedom more narrowly. Freedom of speech, said Meiklejohn, is not the freedom to say anything anywhere (Meiklejohn, 1961). It is rather the freedom to engage in the discourse necessary to and in many ways, constitutive of—democratic self-government. It is in that latter sphere—in the content of that democracy-enabling discourse—which must remain *entirely* free of government officials' manipulation (Id.). But as is clear from earlier parts of the chapter, Meiklejohn's view of free speech coverage is not that of the modern court: Free speech law covers more than speech central to democratic deliberation. It covers commercial speech, for example, as well as the sometimes frivolous speech students engage in during or about school, and protects such speech, albeit more weakly than speech in public discourse (See, e.g., Mahanoy Area School District v. B.L. by and through Levy, 2021, 2048).

Why then might it make sense to define a right to freedom of thought as absolute when a right to freedom of speech is not? I've already noted one reason given by Justice Murphy: As a *practical matter*, he wrote, government simply *cannot* monitor and place limits on our unexpressed—and therefore unobservable—thoughts even it could find justification to

do so. The internal nature of thought prevents it from doing so. The "[f]reedom to think," said Justice Murphy, "is *absolute of its own nature*" since even "the most tyrannical government is powerless to control the inward workings of the mind" (Jones v. Opelika, 1942, 618). Of course, if this remained true, courts would not need to build absolute protection for free thought into law because it would already be built into (and well-secured by) nature. The reason we may well need a constitutional right to freedom of thought is because the rise of brain imaging technology, brain-computer interfaces, and other development is eroding the natural protection that Murphy, in 1942, assumed would remain secure.

Why, then, if judges have to rebuild, in law, the freedom of thought protection we once found in nature should they make this protection absolute? The answer is that even if government officials *could* acquire the capacity to monitor or restrict our unexpressed thoughts, they might *always lack justification* to do so.

There are at least three possible reasons why a right to freedom of thought might be absolute in this normative sense. One was emphasized by the Justices in *Opelika*- both Murphy in dissent and the Justices in the majority—as they implicitly contrasted the absolute nature of freedom of thought with the more limited nature of freedom of speech. Our speech, the Justices in the majority observed, cannot be as completely shielded from government restriction as the "illimitable privileges of thought," because—unlike thought—speech affects others' rights and "ordinary requirements of civilized life compel [an] adjustment of interests" to balance expressive liberty with these rights. Speech, Justice Murphy likewise observed in his dissent, can produce "collisions with the rights of others" (Jones v. Opelika, 1942, 595, 618). Scholars have explained that it is in large part this possibility of collision with other rights that makes freedom of speech doctrine nuanced and complex—rather than a uniform shield of absolute strength. W. Bradley Wendel, for example, writes of free speech jurisprudence, "[t]he byzantine complexity of contemporary First Amendment law is [] the natural by-product of a recurring need to reconcile the basic political values of freedom and order" (Wendel, 2001, 359).

But if hidden and unexpressed thoughts do *not* threaten "order" in the same way, then freedom *of thought* jurisprudence will be free from the need for such repeated reconciliations, and the doctrinal complexity it generates. Free speech rights may have to leave room for government to protect individuals against defamatory or threatening speech,

for example, or regulate speech that would otherwise disrupt the functioning of schools and workplaces. If unexpressed thoughts don't risk or cause similar disruption, then freedom of thought will not have to leave any such room for government intrusion. The shield it raises against government use of fMRI scanners or compelled memory dampening, for example, might remain impermeable.

There is a second reason that freedom of thought might be absolute in a way that freedom of speech is not: Even if unexpressed thoughts *do* create risks for public safety or otherwise threaten social order (see Schauer, 2015; Mendlow, 2018, 2021), it may be that—even so—constitutional law still cannot afford to let government officials regulate such risk-generating thought in the way it lets them address certain kinds of risk-generating speech (such as incitement). Our freedom to generate and hold our own beliefs, one might argue, is more central to our autonomy than our freedom to make certain statements. There is therefore less compromise that can occur in our right to freedom of thought and still leave us with minimal conditions necessary to live as free and autonomous individuals. A person who is required by government, or perhaps by other actors in society, to refrain from expressing her ideas in a certain circumstance can still silently hold those ideas in her mind—and perhaps give expression to them on another occasion. She can still silently explore and build upon those ideas. (Blitz, 2006). The realm of unexpressed thought, in other words, serves as a refuge of sorts where she can continue to exercise sovereignty over her life even when government officials (or other external actors) thoroughly control her external environment. If government actors extend their control into this refuge, by contrast, she will have nowhere to retreat (Christman, 1989).

Third, if the shield that nature once provided to our thought was absolute—because it completely blocked government from being able to monitor or control the invisible "inward workings of the mind" - then perhaps legal replacement for this eroded natural protection can only be considered effective if it comes with the *same degree* of protection that nature once provided. If we have come over decades to define our minimal mental freedom as entailing absolute protection against government observation of our unexpressed thoughts, then perhaps this gives us a claim to continue insisting on such absolute protection even when, thanks to the rise of fRMI and other technology nature can no longer provide it.

These arguments all have power with respect to at least certain aspects of freedom of thought. As Bublitz observes, our autonomy is more deeply threatened when government extends its power into a "forum internum"—our internal sphere—than it is when it exerts control over our external actions (including communication). As Alegre notes, the absolute nature we attribute to the right reflects its "profound importance for who we are as individuals and as societies" (Alegre, 2017). As McCarthy-Jones emphasizes in his contribution to this book, moreover, letting government exert control over some aspects of our thought (like speech we may consider less private than unexpressed thought) very likely gives it greater control over our thinking more generally (including our private contemplation). (McCarthy-Jones, 2021).

But it is hard to maintain that all of facets of our thought should receive such absolute protection. This is most clearly true of a right to voluntary mental modification. Thus, Bublitz, although arguing that the right to freedom of thought is absolute in certain respects, argues that a right to "re-configuration of one's own self"—although deserving of respect—"cannot be encompassed by the absolute protection of freedom of thought." Government, he says, cannot be required to ignore the "imminent dangers of psychoactive substances and social interests in the mental fabric of society" (Bublitz, 2014). This aspect of freedom of thought then may need to be reconciled with the public's need for order and safety. Some of those who write about the law and ethics of cognitive enhancement technologies have similarly stressed that the state may have *some* legitimate role in regulating their use—to protect the safety of those using the technologies. Henry Greely and his co-authors wrote in 2006, for example, that since "the risk of unintended side effects" from cognitive enhancement drugs is "both high and consequential," they should be available only under supervision from psychiatrists or other doctors (Greely et al., 2008, 704). Veljko Dubljevic has similarly discussed the possibility that cognition enhancement drugs might be available only to individuals who have been informed of their risks by a doctor or a mandatory course (Dubljevic, 2013, 179–187).

Moreover, if a right to freedom of thought is meant to recreate the mental privacy and integrity that nature once provided, then it may not automatically and invariably provide capacities for shaping our minds of a kind we lacked before the digital age and the rise of neurotechnology.

Bringing this kind of mind modification under the rubric of an absolute constitutional right to freedom of thought would present courts with

a binary option: Either cognitive enhancement would be left entirely unprotected by the Constitution (leaving government free to regulate it any circumstances), or such cognition enhancement would be entirely shielded by it (and immune to state regulation).

The problem with such an approach, however, is that it is likely to limit the right's coverage so drastically that it will fail to protect an interest—in mental autonomy, for example—the moment that a plausible cause for government regulation exists on the other side of the balance. Anthony Amsterdam has warned about this problem in discussing Fourth Amendment search and seizure law. If we try to make the Fourth Amendment's protections against police surveillance strong—and keep them strong everywhere—such an "all-or-nothing" approach will probably cause courts to sharply limit the scope of the right so as not to constrain law enforcement too much (Amsterdam, 1974, 388). If Fourth Amendment protections come only in one super-strong form, courts will likely apply them only rarely—so they leave government with enough room to vigorously investigate and counter crime. The better solution perhaps is to abandon such an all-or-nothing approach, so that the right can still provide some protection for privacy even outside of the home (and other parts of the Fourth Amendment's core), but do so in a way that leaves government more room to function.

In fact, American courts have already limited the scope of the inchoate freedom of thought recognized in Stanley v. Georgia—and have arguably done so in part for this reason. In Stanley, the Supreme Court barred government from punishing someone (Robert Eli Stanley) solely for possessing an obscene film in his own home. But the Court subsequently made clear that this freedom of thought protection did *not* give adults a right to willingly view pornography in public places outside of the home (Paris Adult Theater v. Slaton I, 1973, 53–54), nor to transport obscene materials into their home for later viewing (United States v. Thirty-Seven (37) Photographs, 1971, 376; United States v. Orito, 1973, 140). Nor did it give them did not give them a right to possess or view child pornography, in their homes or anywhere else (Ohio v. Osborne, 1990, 108). In Doe v. City of Lafayette, the Seventh Circuit Court of Appeals—ruling en banc, that is with all judges of the court participating—said that Stanley's freedom of thought protection covers "*mere* thought, and not thought plus conduct." It thus rejected the argument of a convicted sex offender that he had been banned from public parks solely on the basis of the inappropriate sexual thoughts he had about children he observed in the

park. Government, said the Court, wasn't regulating his thoughts, it was regulating his action (going to parks to observe children playing there). Giving constitutional protection to more than "pure thought" would leave government powerless to regulate all manner of conduct because "all regulation of conduct has some impact, albeit indirect, on thought" (Doe v. City of Lafayette, 2004, 765).

One might suggest, however, that even assuming the Seventh Circuit was correct in reaching that result, the jurisprudence of a right to freedom of thought need not be so narrow. Just as Fourth Amendment law provides some protection for privacy outside of the home, a right to freedom of thought might likewise continue to provide *some* protection for mental autonomy even outside of a core realm of the coverage of a right to freedom of thought—for example, when individuals are asserting a right to mind modification rather than mental integrity or privacy. It could continue to require that government officials provide *some* justification when they wish to intrude upon mental autonomy, even when their intrusion does not rise to the level that occurs in compelled psychosurgery or brainwashing, and even when government interests in regulation may have some force.

B. **The Right to Freedom of Thought as a Multifaceted Right**

As it does in the realm of freedom of speech, the level of protection that accompanies our right to freedom of thought may vary depending on exactly what it is being invoked to protect—or the type of threat that government action is presenting to our thought. Consider, for example, the possibility that a right to freedom of thought includes what Adam Kolber has described as "freedom of memory:" When the state tries to prevent us from using technology (like the drug, propranolol) to dampen or erase memories we no longer wish to retain, it may in doing so run afoul of a constitutional right we have to control the contents of our own minds (Kolber, 2006, 1622). But that doesn't mean that the state should be as powerless to preserve our memories as it to compel psychosurgery or engage in surreptitious belief manipulation. Even if we have a presumptive freedom to erase our own memories, one might argue it should remain illegal for us to do so where the justice system needs us to testify about those memories. As Kolber writes in analyzing the law and ethics of memory dampening in another chapter in this volume (and in previous

scholarship), erasing one's memory might, at least in some circumstances, count as obstruction of justice (Kolber, 2006, 1589–1592, 2008, 145). When freedom of thought protects erasing and dampening memories, then, it may not protect it absolutely. Its level of protection might sometimes be weaker. It could conceivably be defined as a kind of strict scrutiny that gives way to the government's compelling interest in assuring that courts can have access to the evidence necessary to assure that justice is done. Or as a kind of intermediate scrutiny that would give government still more leeway to prevent us from reshaping our own memories in a way that undermines our ability to serve as witnesses. Or the freedom of memory might provide stronger protection to certain individuals (such as victims of a crime) than to others (like bystanders) (Kolber, 2021).

In this circumstance, our freedom of thought—like our freedom of speech—could produce a "collision with other rights" and require a jurisprudence that allows mental freedom to be reconciled with other interests (in this case, justice and safety) (Jones v. Opelika, 1942, 618). The right to shape our minds, then, might be subject to some of the same kind of analysis courts have done in free speech jurisprudence in reconciling speaker's autonomy interests with other important social interests (in this case, in the fair administration of justice).

In some cases, even rights to mental integrity or privacy may need to have certain exceptions that allow for government compulsion or interference in extraordinary circumstances. Consider, for example, circumstances where a particular person's unstated thoughts or intentions can have significant implications for others' safety: For example, when they are entrusted with piloting planes or with protecting key elements of national security. Thought surveillance may still be deeply concerning here. But some scholars have explored the question of whether government might not be absolutely prohibited from engaging in it, or from obligating certain officials (such as judges) to enhance certain mental capacities or to technologically-induce certain mental states (See, e.g., Chandler & Dodek, 2016; Lavazza, 2021). My general point here is that some activities may be covered by freedom of thought, but not protected by as strong a constitutional force field as we receive against paradigmatic examples of mental manipulation often viewed as entirely at odds with a free society (such as government-compelled psychosurgery).

A caveat is in order. It is sometimes difficult in both free speech law and search and seizure law—and might be also in a jurisprudence of freedom of thought—to distinguish types of regulations that are genuinely in what

I am calling a *periphery*, where the protection of a right is weaker, from regulations that are in a kind of *gray area*, where protection is uncertain—because the regulation may or may not be within the core of a right, or perhaps even within the coverage of the right, depending on how a court answers certain factual questions about the government's motives or other aspects of its regulation. Consider examples from free speech and search and seizure law. As I have already noted, government laws that restrict threats of violence may or may not face First Amendment free speech barriers—depending on whether government's targeting of the threat is selectively focused only on threats with certain ideologies (See Virginia v. Black, 1993, 359–360). Where government's selective restriction *is* ideological in nature, it will face strict scrutiny and thus be viewed as threatening a core area of First Amendment free speech protection (See R.A.V. v. St. Paul, 1992; Virginia v. Black, 1993, 359–360).

In search and seizure law, government typically faces no Fourth Amendment barriers when it obtains data collected by third parties, such as private communications companies (See Smith v. Maryland, 1979, 744–745; United States v. Miller, 1976, 443).[6] But matters are different if third parties have collected such data at the government's direction (United States v. Walther, 1981, 791–793; cf. Burdeau v. McDowell, 1921, 474–475). In that case, government will need to obtain a warrant based upon probable cause to see and use that data (since it is government, not voluntary private action, that produced the data). It may seem to some observers that free speech and Fourth Amendment protection are weaker in these circumstances (placing them at the periphery of each right), but it is more accurate to say that protection isn't weaker but rather indeterminate: It is not at some intermediate level of strength, but rather can be either of maximal strength (strict scrutiny in the First Amendment context, a probable cause-based warrant requirement in the Fourth) or non-existent, depending on what courts find when they analyze the government's actions. In this case, protection isn't simply weaker, coverage itself is in doubt.

[6] The Supreme Court has recently placed some limits on this "third party exception" to Fourth Amendment protections. Where a third party—like a cell phone company—is asked by the government to provide cell-site or other location data that would reveal an individual's whereabouts over an extended period of time, the government must obtain a warrant based on probable cause to obtain that information. See Carpenter v. United States (2018).

A right to freedom of thought might likewise offer protection that differs from absolute protection not in that it is weaker (as it would be if intermediate scrutiny applied) but more uncertain. This is what I have suggested earlier may be true when government bars individuals from using cognitive enhancement or memory-dampening technology to alter their own memories, emotional states, or thinking processes. Where government officials limit individuals' use of such technology for health and safety reasons, the right to freedom of thought may raise no barrier against their doing so. When they instead do so to prevent us from having certain mental experiences, they may face barriers as high as they do when they are within the core of the right. Of course, even where government officials *do* receive more leeway to restrict or otherwise regulate thought-shaping technology, the form such leeway takes may involve facing a lower barrier against regulation—rather than having a completely free hand. In the case of cognitive enhancement technology, for example, it may be the case that even where government has *valid health and safety interests* in limiting access to, or use of, such technology, it will not be entirely free from constitutional limits (See Blitz, 2010b, 2017, 2021). Even such health and safety interests will not give government an excuse to entirely ignore individuals' interests in exercising mental autonomy (or other freedom of thought interests). As between different means of achieving its health and safety interests, courts might find, government will be constitutionally required to choose the one that leaves individuals most free to exercise mental autonomy. The protection offered by a right to freedom of thought in this case would not be complete—government would still be able to restrict individuals' capacities to shape their own thought—but it would still exist in the form of a kind of "intermediate scrutiny" (See Blitz, 2016b, 301).

Whatever realm our right to freedom of thought may cover, how then would courts determine what level of protection exists for different areas within the coverage of such a multifaceted freedom of thought? How will they determine what belongs at the core and what belongs to the periphery of freedom of thought (and perhaps, draw more fine-grained distinctions between different levels of protection)? Answers to similar questions for free speech, Fourth Amendment privacy rights, or other rights are complex, nuanced, and marked by long-standing (and sometimes deep) disagreement between different judges, lawyers, and legal scholars. However, it is useful—in trying to imagine an emerging and

future jurisprudence of freedom of thought—to take stock of two recurring themes in how courts have marked the boundaries of constitutional rights' coverage, and the (often blurry) lines that separate core from peripheral areas of that coverage.

Here is one high-level observation we might offer to explain what it is that makes protection so strong (sometimes, arguably approaching absolute protection) at the core of a right: This happens, perhaps, where the individual autonomy, privacy, or other individual interest protected by the right inevitably overwhelms any contrary interest government might invoke. And there are different variations on this kind of scenario.

A. **Balancing Individual Autonomy and the Public Interest**

First, a government interest might predictably be overridden because it is patently illegitimate—and thus cannot even get the government's case off the ground. Consider, for example, how the Court uses such an argument in *Lawrence v. Texas*, where the court found that laws criminalizing sodomy are unconstitutional. The government of Texas, the Court found, could have "no legitimate state interest" in controlling the private, consensual, and non-harmful sexual conduct of individual citizens. Our constitutional system doesn't accord any respect to government's desire to override individual autonomy in this context in order to bring our private lives into accord with the moral preferences of government (or the majority it represents) (Lawrence v. Texas, 2003, 577–578). The government has made a similar argument in rejecting paternalism as a valid government basis for restricting advertisements or other commercial speech. In Virginia Pharmacy Board v. Virginia Consumer Council, the Court emphasized that—while government has greater leeway to regulate commercial speech than other speech—it cannot do so on the ground that it needs to keep "the public in ignorance of the entirely lawful" drug price or other non-misleading commercial information (Virginia Pharmacy Board v. Virginia Consumer Council, 1976, 770). In this case, the type of speech in question—commercial speech—is normally *not* treated by courts by being at the core of the First Amendment. On the contrary, it is normally the kind of speech the government *does* have leeway to regulate. But not when the government's interest is patently at odds with constitutional principles about the proper role of government in regulating our affairs. Even though a commercial speaker's interest in

expressing themselves free of government constraint is generally weaker than that of speakers engaging in public discourse, it will be strong enough to withstand a government justification that simply misconceives government's role in American constitutional democracy.

Arguably, the key statement that Stanley v. Georgia makes about freedom of thought fits this model. The Court there said that it is impermissible for government to "premise legislation on the desirability of controlling a person's private thoughts" (Stanley v. Georgia, 1969, 566). Like a government desire to impose its own morality on our private relationships, or to invoke paternalism in keeping us ignorant, a government desire to substitute its own preferred beliefs for those we hold, is simply an illegitimate goal. Even if some aspects of our thinking are arguably *not* crucial to our own autonomy, that doesn't mean government has any legitimate role in coercively controlling or shaping them.

Second, even where government's interest is legitimate—and perhaps quite powerful—it may still be one that courts cannot honor (or can, at best, rarely honor)—when doing so would require compromising a crucial autonomy, privacy, or other individual interest. For example, government might offer good reasons that it would be better equipped to protect public safety if it placed cameras inside of, and engaged in constant surveillance of, all individuals' in-home activities, or hacked into and surreptitiously surveilled every file every person stored on a home computer. The sacrifice of privacy this would entail, however, is not one the Fourth Amendment allows for—even when it would further powerful government interests. Similarly, courts have argued that even where government can plausibly argue that individuals' arguments might ultimately lead their audiences to adopt harmful views, the Court has held that this cannot generally justify government control of what individuals say. The First Amendment "core" or "bedrock" generally prevents government from controlling the content of individuals' ideas—even where it can explain how doing so might advance the interests of the public in some way (Texas v. Johnson, 1984, 414).

As I have noted earlier, the same argument can be offered about freedom of thought—and has provided one reason that freedom of thought has sometimes been regarded as absolute. If control over our own minds (or at least, freedom from others' control) is the last redoubt of freedom—an "inner citadel" where we can be guaranteed freedom even where we can find it nowhere else (Christman, 1989)—then courts could

find that government must be excluded from this realm even where they can advance powerful interests by entering.

One clear basis to begin understanding what government regulations would cut at the core of the right to freedom of thought then would be to think more carefully about which such regulations threaten autonomy—or lack any legitimate government interest consistent with government's role in our constitutional system. Clear-cut violations of freedom of thought, such as compelled psychosurgery or hypothetical subliminal control, might count as such because they override our autonomy to a greater extent—or perhaps in a way that is harder for us to counteract—than measures that restrict only one tool we use for shaping our own cognition (such as a cognition enhancement drug or device) but not others (such as using speech or other cultural means to reshape our cognition). Bublitz and Merkel rely on an argument of this kind when they write that direct intervention into brain processes generally cause greater injury to autonomy than measures which influence our mind from the "outside" such as education (Bublitz & Merkel, 2014, 69–74). Even where our autonomy interests are low, however, government might still face a strong constitutional barrier against restricting or shaping thought when its motives are inconsistent with the role government may legitimately play. Restricting cognitive enhancement may be permissible but not where government engages in such restriction to prevent us from being better able to critically evaluate government policy. In short, like other rights, a right to freedom of thought is likely to be at its strongest when autonomy and privacy interests are high and public safety or other concerns are low.

As noted earlier, the courts might—in mapping this doctrine for a new right to freedom of unexpressed thought—find some guidance in the First Amendment jurisprudence that already protects expressed thought (that is, speech). It is worth considering, in particular, whether two aspects of free speech doctrine might provide a model for a future doctrine of freedom of thought. First, as noted earlier, government receives far more leeway to regulate speech when it steers clear of regulating the content of that speech and instead regulates it in a "content neutral" manner, for example, by regulating the use of a sound-truck to broadcast speech in a residential neighborhood or to reduce the threat certain means of expression can present to road traffic. Might government likewise have more leeway to regulate thought when it is doing so not to assure that a thinker has certain ideas rather than others but rather to help treat psychosis?

One might, of course, question whether a regulation aimed at banishing psychotic delusions is really "neutral" with respect to thought content—if the person wishes to retain those delusions. (See Stenlund, 2021).

A second-related question is whether—just as certain categories of speech content, like incitement or "true threats" of violence are unprotected by the First Amendment—certain types of thinking might likewise be unprotected by a right to freedom of thought. Even if the constitution protects rational thought, its protection for thinking patterns characteristic of insanity may be lower (or non-existent). As Gabriel Mendlow notes (citing Stephen Morse), treating psychosis "would appear to increase freedom of thought rather than to decrease it" (Mendlow, 2018, 2380 citing Morse, 2017, 15, 2021). On this account, an individual's freedom of thought may in some cases *require* government intervention in that person's thinking—in order to banish insanity and give them the minimal conditions for freedom of thought.[7]

Some First Amendment scholars have argued that, in some cases, the First Amendment gives government leeway to limit speakers' autonomy because doing so is necessary to protect the autonomy of listeners (or other speakers). Left unregulated, threats of violence might silence speakers at whom they are directed. One might likewise argue that even if government is barred from violating its citizens' mental privacy and integrity, it should be left with power—by a jurisprudence of freedom of thought—to protect its citizens' mental privacy and integrity from surveillance or manipulation by their employers, or other businesses, for example. One might, for example, argue that government should be able to limit when and how companies can ask individuals to consent to mental surveillance or manipulation in exchange for some commercial benefit: Individuals could plausibly argue that their freedom of thought gives them a right to consent to such shaping or sharing of their own mind—for example, in agreeing to do so while playing an online video game or surfing the Web. But others might plausibly argue that a more nuanced and complex freedom of thought regime would leave the government the power to protect them from being pressured or deceived into consenting to let a company (or another individual) control or observe their thinking—and to bar them, or at least nudge them away, from doing so in circumstances they might come to regret. (See Thaler &

[7] Mari Stenlunud explores this issue more fully in another chapter in this book (See Stenlund, 2021; See also Saks, 2002).

Sunstein, 2009; Niker, et al., 2021; Bublitz & Merkel, 2014; Bublitz, 2021).

B. **Social Convention**

When courts draw distinctions between the core and periphery of a right's coverage—when they distinguish between areas of higher and lower protection—there is also another important factor that involves reliance not solely on adherence to certain principles (such as protection for autonomy), but also on social convention. The distinctions that rights create might not always, and in all respects, track underlying inherent differences between the sides of the distinction. As David Strauss writes of constitutional doctrine, the solution it provides to a given legal problem sometimes merits courts' adherence (and that of citizens) not because it is the sole "right" solution—but because, there is a need for society to choose among multiple, equally valid options—and a tradition or social convention helps generate an agreed-upon solution. Strauss explains this in part by analogizing courts' adherence to the U.S. Constitution's text to the "focal points" that exist in what game theorists call "cooperation games":

> In a cooperative game with multiple equilibria, the solution will often depend on social conventions or other psychological facts. A simple example would be deciding whether traffic should keep to the left or the right, or who should call back if a telephone call is disconnected. These are games of pure cooperation, but even when there is some conflict of interest a "focal point"—a solution that, for cultural or psychological reasons, is more "salient" and therefore seems more natural—might be decisive. (Strauss, 1996, 910)

Strauss makes this point in arguing that allegiance to constitutional text as a whole operates as a kind of focal point. But this may also be true of the way that courts draw the boundary lines that mark the coverage of a right—or separate a right's core from its periphery. In short, modern societies need both spheres where the state can act vigorously serve the public's interest (investigating crimes, guaranteeing the free flow of traffic in streets, protecting individuals' health and safety) as well as some spheres where individuals can exercise autonomy free of state control, and find privacy free of state observation. The lines that demarcate such a sphere

of autonomy or privacy may not necessarily correspond to spheres that are naturally more suited for autonomy or privacy than other spheres of our lives. In some circumstances, there may be no basis to say that one zone is more appropriate for privacy or autonomy than another. The territory of such a sphere may instead be a product of social convention, of "cultural or psychological reasons" that lead courts (or others) to regard it that way.

As I have noted in past scholarship, the primacy of the home in Fourth Amendment law is best understood as partly a product of such social conventions. "[E]ven if we can find places outside the home in which we feel more comfortable and safe from others' observation, these other places–for better or worse–do not have the same historically and legally significant pedigree that the private residence has acquired over the centuries" (Blitz, 2010a, 395). The point is that we need *some* space where we can have greater privacy from state observation than we do in most cases, and social convention has provided us with such a space in the home.

Even where the social conventions that partially define a right, or mark a core area within it, are to some extent the product of historical accident, this doesn't make them any less worthy of adherence. As I've written elsewhere in discussing freedom of thought and mental privacy, "a crucial roadway could just as easily have been built along a different path does not mean that we are not justified in preserving, maintaining, and using such a road where it has already been built. Similarly, the fact that we can imagine a counterfactual world that would justifiably protect intellectual privacy with different institutions, or by setting aside different spaces, does not mean we should abandon and cease to build upon, the intellectual-privacy traditions that we have" (Blitz, 2009, 20–21). To be sure, the status of the home in Fourth Amendment law is not wholly the product of social convention or accident: Its walls and other aspects of its architecture, as well our legal right to exclude others from it, help make it a place where it is easier to find privacy than it is in public space we share with others. But this underscores the extent to which boundary lines created by rights—and the "territory" that they most strongly insulate against state control—are the complex product of history, social conventions, and physical architecture, as well as of a commitment to protecting whatever interest underlies the right.

The same may be true in the development of a future jurisprudence of freedom of thought. The protection offered by a right to freedom

of thought may come closest to being absolute when it protects realms that history, social convention, or the nature of the physical world has—in the past—placed beyond the reach of government. This may well be one reason why one of the threats to freedom of thought that seems most concerning to us are those in which government forcibly changes our brain—with surgery or with compelled medication. They are more "direct" attacks on freedom of thought than are attempts to influence us with words or perceptions. One might ask what makes this true of compelled use of psychoactive drugs, for example, since the state cannot currently, in carrying out such compulsion, simply implant or command a particular thought (in the manner in which mind control is sometimes carried out in science fiction). The government rather imposes certain physical or chemical changes on the brain with the hope it will cause an individual to act less violently, or to think more clearly. As Rodney J.S. Deaton says, talk therapy or intense propaganda by government may be more effective at instilling a particular idea than compelled drug use (Deaton, 2006, 214–221). Why then does the latter manner of attempting to shape thought feel any more "direct" than what occurs when the state confronts a person with words (e.g., in mandated talk therapy) or with images?

One possibility, perhaps, is that (as noted earlier) brain interventions impose changes on mental processing that are harder for the subject to resist than are similar changes produced by words or images, and other individuals have a well-established and constitutionally-protected right - a free speech right - to influence us with words that they do not have to influence us with "direct" manipulations (Bublitz & Merkel, 2014, 69–74). However, there is another reason that brain-based intervention may feel like a graver freedom of thought violation—one which feels like a violation of a *core* freedom of thought right. That is that our brain processes have *historically* been free from this kind of state manipulation. We have had a level of freedom from biological thought interventions that we have *not* had from the impact of others' words, or from the images they show us.

Courts therefore might apply freedom of thought in a way that involves what Orin Kerr, in the Fourth Amendment context, has called "equilibrium adjustment" (Kerr, 2011, 480). In 2001, for example, the Supreme Court ruled that police engage in a Fourth Amendment "search" requiring a warrant when they stand outside a home and use an infrared imager to view its interior. Even though police don't need

a warrant to stand on a street outside a home and look at it with their natural vision, it is a search when they use technology (like an infrared imager) that lets them see parts of the home they could—in past times—have seen only by physically entering it. The Supreme Court, in other words, responded to technology which unsettled an equilibrium that existed between the state's surveillance power and individual's privacy: This technology contracted the sphere of privacy and expanded the sphere of surveillance by allowing police to gather (from the street) information from within a home that was previously inaccessible to them. The Court's response was to restore the equilibrium by replacing the natural barrier once created by the home's walls with a legal barrier that constitutionally restricted use of technology that can see through those walls.

The same approach might sometimes guide courts as they analyze government use of new technologies for monitoring or manipulating the brain. Even where a government-compelled brain scan recovers information that isn't all that private, courts might still find that it is violating a core mental privacy right because such a measure is giving government access to a realm we have long been able to regard as secured against government surveillance. The Court might understand a right to freedom of thought—or Fourth Amendment rights interpreted in light of freedom of thought interests—as assuring that we *retain* the mental of privacy we have long had. As I noted earlier, one might conceive of a right to freedom of thought as rebuilding—in law—the protection for the mental autonomy and privacy that fMRI scanners and other technologies have eroded in nature.

By contrast, other government measures that place limits on our thoughts might *not* extend government control in this way. Consider, for example, government measures that place limits on our ability to use cognitive enhancement technology—such as nootropic drugs, tDCS, deep brain stimulation, or brain implants. These measures place limits on our mental autonomy: They prevent us from shaping the content of our own minds. There is therefore a case, as Boire and others write, that they should fall within the coverage of freedom of thought or "cognitive liberty" (Boire, 2001a). At times, such a restriction might even have the same result as one that interferes with our thinking by direct intervention: A government measure that prevents us from endowing ourselves with a particular mental capacity (by forbidding us from using cognitive

enhancement) might leave us in the same state we would be in if government used forcible medication or surgery to deprive us of such a mental capacity. (See Kolber, 2006; Blitz, 2010b).

However, in barring use of cognitive enhancement, government would not be depriving us of a kind of freedom or privacy we have long had. It would rather be regulating in areas where it has long regulated: The creation, sale, transfer, or use of drugs and medical devices, or delivery of professional psychological or psychiatric treatment (or medical treatment more generally). That doesn't mean that government should face no judicial scrutiny when it limits our use of such devices. But courts might leave government officials with more leeway in a realm where they have long had such leeway. As noted earlier, this is one reason why an absolute or near-absolute right against thought interference might not cover a right to voluntary mind modification.

There is, to be sure, a possible danger in relying on such an equilibrium adjustment model of rights in understanding freedom of thought: It risks freezing into the law an understanding of mental autonomy or privacy which, although appropriate for the twentieth century may not be a perfect fit for our lives in the twenty-first. The minimal conditions for autonomy in the pre-digital age may not be the same as those in a world where individuals have come to use computers not just as replacements for activities once carried out in the physical world, but to engage in new kinds of self-definition or personal action. Or where individuals have grown used to being able to dampen very painful memories and states of mind, or modify mental habits that interfere with their lives. Any judicial use of equilibrium adjustment must therefore take into account the possibility that technological and social change might not only alter the threats to our mental autonomy and privacy, but how we define that autonomy and privacy and understand its minimal conditions.

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