

TWO VIEWS OF FIRST AMENDMENT THOUGHT PRIVACY

*Adam J. Kolber**

ABSTRACT

For centuries, our thought privacy has been reasonably well protected by the difficulty others have in deciphering our thoughts. This natural protection is in jeopardy, however, as emerging technologies improve our ability to, loosely speaking, read minds. When these methods get cheaper and more accurate, the state may seek to monitor and regulate thought in ways previously impossible.

The First Amendment undoubtedly protects thought privacy, but current law leaves open two very different levels of protection: On one view, thought is only protected when intertwined with expression. If so, we have rather weak First Amendment freedom of thought, since thoughts often go unexpressed. Alternatively, thought may be protected independent of expression. If so, our freedom of thought is more expansive.

I explore these views by considering blackjack players who “count cards.” Card counters perform mental calculations on publicly available information—the cards dealt in plain sight—in order to turn the odds in their favor. Even though card counting does not obviously implicate expression, I argue that the First Amendment plausibly gives us the right to count cards in our own minds. More controversially, I argue that the Amendment may even protect the right to count cards when combined with an overt action, such as betting in a casino. A criminal prohibition on betting while counting cards might constitute impermissible thought-content discrimination by permitting bettors to make the basic calculations required to play blackjack but not the more predictive calculations used to count cards.

* Professor of Law, Brooklyn Law School. For helpful discussion, I thank Jane Bambauer, Marc Blitz, Glenn Cohen, Kim Ferzan, Dov Fox, Gary Minda, Andrew Napolitano, Seana Shiffrin, Victor Tadros, Alec Walen, and Howard Wasserman, as well as the participants at conferences and workshops at Brooklyn Law School, Georgetown University Law Center, Harvard Law School, Maurice A. Deane School of Law at Hofstra University, Rutgers School of Law—Camden, and Yale Law School. This project was generously supported by a visiting fellowship at NYU School of Law’s Center for Research in Crime and Justice and by a Brooklyn Law School summer stipend.

TABLE OF CONTENTS

INTRODUCTION.....	1382
I. TWO WAYS THE FIRST AMENDMENT MAY PROTECT THOUGHT.....	1386
A. <i>Text of the Amendment</i>	1387
B. <i>First Amendment Rationales</i>	1389
C. <i>Some Cases Consistent With Intertwinement</i>	1391
D. <i>Some Cases that Arguably Require Independence</i>	1393
II. PURE THOUGHT CRIME AND THE CASE FOR INDEPENDENT PROTECTION	1396
A. <i>The Legal Basis for the Voluntary Act Requirement</i>	1398
B. <i>Background on Card Counting</i>	1400
C. <i>Impure Card Counting</i>	1402
III. THOUGHT-CONDUCT CRIME AND THE FIRST AMENDMENT .	1403
A. <i>Protection Under the Intertwined View</i>	1403
1. <i>The Expressiveness of Blackjack and Card Counting</i> ...	1404
2. <i>Listener Interests and Rights to Process Information</i>	1405
3. <i>Card Counting and Thought-Content Discrimination</i> .	1407
4. <i>Blackjack and Commercial Speech</i>	1410
5. <i>Replies to Freedom of Thought Minimalists</i>	1411
B. <i>Protection Under the Independent View</i>	1415
1. <i>The If-Expressed Test</i>	1417
C. <i>The Constitutionality of Anti-Device Laws</i>	1419
CONCLUSION.....	1422

INTRODUCTION

Most of us are confident in the privacy of our thoughts because there is little the government can do to decipher them. Relying on the natural privacy of thought, Justice Frank Murphy wrote in the 1940s that “[f]reedom to think is absolute of its own nature” because “the most tyrannical government is powerless to control the inward workings of the mind.”¹

Our natural protection of thought is in jeopardy, however, as emerging technologies begin to allow us, loosely speaking, to read

¹ Jones v. Opelika, 316 U.S. 584, 618 (1942) (Murphy, J., dissenting).

minds.² Using functional magnetic resonance imaging (“fMRI”), for example, neuroscientists can make reasonably good guesses about what a subject in a brain scanner is looking at, be it a still image³ or, at a very primitive level, a video.⁴ A 2012 study showed that subjects can be taught to mentally spell words in a manner researchers can decode in real time using a brain scanner.⁵ And when patients have electrodes directly connected to their brains before surgery, computers can do a surprisingly good job of decoding the sentences in their inner voices.⁶ Some think we’ll soon be able to do the same with non-invasive brain-scanning techniques.⁷ We won’t read minds in any spooky sense, but we will get better at correlating brain activity with mental activity in order to infer what people are thinking.

As mind reading technology becomes cheaper and more accurate, the state may seek to regulate thought in ways that threaten the privacy of our mental lives. It is not at all clear if the Constitution would protect us from such invasions. Many free speech cases trumpet our freedom of thought but say frustratingly little about the contours of the protection.⁸ Most notably, they conceal whether the First Amendment protects thought itself (what I’ll call the *independent* view) or only protects thought when it is linked to expression (what I’ll call the *intertwined* view).

As a test case for these two views of First Amendment thought privacy, imagine a prohibition of “card counting” at the blackjack table.

2 See generally Adam J. Kolber, *Will There Be a Neurolaw Revolution?*, 89 IND. L.J. 807, 827–41 (2014); see also Adam J. Kolber, *The Experiential Future of the Law*, 60 EMORY L.J. 585 (2011) (describing emerging and futuristic technologies to more objectively assess experiences like pain and suffering).

3 See, e.g., Kendrick N. Kay et al., *Identifying Natural Images from Human Brain Activity*, 452 NATURE 352 (Mar. 20, 2008); Thomas Naselaris et al., *Bayesian Reconstruction of Natural Images from Human Brain Activity*, 63 NEURON 902 (Sept. 24, 2009).

4 See, e.g., Shinji Nishimoto et al., *Reconstructing Visual Experiences from Brain Activity Evoked by Natural Movies*, 21 CURRENT BIOLOGY 1641 (Oct. 11, 2011).

5 Bettina Sorger et al., *A Real-Time fMRI-Based Spelling Device Immediately Enabling Robust Motor-Independent Communication*, 22 CURRENT BIOLOGY 1333 (July 24, 2012).

6 See Brian N. Pasley et al., *Reconstructing Speech from Human Auditory Cortex*, 10 PLOS BIOLOGY e1001251 (2012); see also Adam Piore, *To Study the Brain, a Doctor Puts Himself Under the Knife*, MIT TECHNOLOGY REVIEW (Nov. 9, 2015), <https://www.technologyreview.com/s/543246/to-study-the-brain-a-doctor-puts-himself-under-the-knife/>.

7 In 2012, neuroscientist Jack Gallant told me that “[w]ithin a few years, we will be able to determine someone’s natural language thoughts using fMRI-based technology.” E-mail from Jack Gallant, Professor of Psychology, Univ. of Calif. at Berkeley to Adam Kolber, Professor of Law, Brooklyn Law School (August 24, 2012, 05:50 EST) (on file with author). Gallant predicts that early attempts will be only modestly successful but that “some time in the further future, [the technology] will work well enough to be useful.” *Id.*

8 See *infra* Part I.C.

To play blackjack, you have to make simple calculations to determine the value of the cards in your hand. Card counters, however, make further calculations based on all of the cards dealt in plain view. These calculations enable them to turn the odds of winning in their favor.

A criminal prohibition of card counting would arguably constitute impermissible *thought-content* discrimination by permitting bettors to make the basic calculations required to play blackjack but not the more predictive calculations used to count cards. Since card counting does not obviously implicate expression, however, whether or not the First Amendment precludes a card counting prohibition may turn on whether the Amendment protects thought independently or only when intertwined with expression.

While ordinary card counting is not currently criminalized, we can surely imagine casinos pushing to criminalize it. Casinos already successfully lobbied for laws that make it a felony to count cards with the aid of a device. When a card counting app was developed on the iPhone (which included a special “stealth mode” to make it hard to detect), the Nevada Gaming Control Board issued an open letter warning that using such a device to count cards in a casino is a serious crime.⁹ So if you make your betting computations solely in your head, the criminal law currently leaves you alone. But if your betting computations are assisted by a computer, you can be punished by up to six years in prison for a first offense.¹⁰ Although you retain many of your free speech rights when aided by technologies like a printing press or the Internet, you apparently have no thought-privacy right to engage in computer-assisted betting computations (although no one, to my knowledge, has argued the matter in court). If I can show that an ordinary card counting prohibition would raise questions under the First Amendment, then anti-device laws are at least worth examining as well.

In Part I, I discuss First Amendment rights to freedom of thought and consider whether the Amendment protects thought independently or only when intertwined with expression. In Part II, I describe card counting and propose a hypothetical statute prohibiting players from increasing their bets based on the card count. Card counting lets us test the boundaries of our freedom of thought without imagining futuristic brain scanners: it is often easy to determine

9 See Letter from Randall E. Sayre, Bd. Member, State of Nev. Gaming Control Bd., to All Nonrestricted Licensees and Interested Parties (Feb. 5, 2009), available at <http://gaming.nv.gov/modules/showdocument.aspx?documentid=5343>.

10 Nev. Rev. Stat. § 465.088 (2010).

when players are counting cards based on their betting patterns. These patterns would almost never arise by chance, and special software can help detect card counters.¹¹

Finally, in Part III, I argue that card counting (without a device) is plausibly protected under both the independent and intertwined views of First Amendment freedom of thought. I make not a normative claim but a predictive claim about the behavior of judges. Given the limited doctrine on the topic, I predict that at least a significant minority of judges would deem a card counting prohibition unconstitutional, even if the prohibition were tied to an action such as betting. If I'm right, First Amendment concerns would also plausibly be raised by other laws implicating free thought and action, were, for example, the government to prohibit camping in a public park while thinking the mayor is incompetent or enhance punishment for those who "knowingly kill a Republican" but not those who "knowingly kill a Democrat." More important than my speculative prediction about the scope of the Amendment, I identify the contours of First Amendment freedom of thought that require resolution in the face of obtuse Supreme Court proclamations on the subject and suggest how courts might begin to translate doctrine protecting expression into doctrine protecting freedom of thought.

Constitutional protection of thought may emerge not only from the First Amendment, but also from the Fourth, Fifth, Eighth, and Fourteenth Amendments. First Amendment freedom of expression is a reasonable place to begin our inquiry, however, for two reasons. First, a card counting prohibition would arguably constitute the kind of thought censorship the First Amendment is said to protect. Second, even if other constitutional provisions protect thought privacy, the nature of the protection may vary based on its source. A substantive due process protection rooted in bodily autonomy might protect ordinary card counting but not device-assisted card counting. By contrast, the truth-seeking function of the First Amendment might protect both. (The common practice of ejecting card counters from casinos, which are privately owned but highly regulated, may also offend the Constitution, though I leave such issues for another occasion.)

One may be tempted to dismiss card counting as trivial. Surely we would survive without it. But such reasoning is generally anathema to First Amendment analysis. As a matter of principle, the Amendment not only protects trivial expression but also a great deal of expression

11 *Casino System to Spot Card Counters Before They Cash In*, NEW SCIENTIST, Oct. 10, 2009, at 19.

that is harmful and hateful. It remains to be seen whether the First Amendment protects thought to the same extent. But even if the protection is weaker, when we consider the relative costs and benefits, a card counting prohibition would arguably constitute heavy-handed thought control to further relatively unimportant societal goals. More broadly, the issues raised by card counting help us envision the boundaries of freedom of thought as we enter a world in which our thoughts become more and more transparent without our having to express them.

I. TWO WAYS THE FIRST AMENDMENT MAY PROTECT THOUGHT

The Supreme Court has made clear that the First Amendment protects freedom of thought, but the Court has never clearly described the contours of the protection.¹² One important question that courts have never resolved is whether freedom of thought is only protected by the Amendment in cases that implicate expression. If a court adopts the *intertwined* view, it means that freedom of thought is only protected in particular cases that implicate the sorts of expression typically recognized by courts in the free speech domain. On this view, no matter how much the state burdens freedom of thought, the First Amendment is irrelevant absent a connection to expression in the case at bar.

One might adopt the intertwined view if one believes that freedom of thought holds only instrumental value from a First Amendment perspective. If thought is only valued as a way of promoting expression, there is nothing particularly special about freedom of thought from a free speech perspective. Freedom of thought would be protected just like “freedom of celluloid” or “freedom of pencils.” Celluloid and pencils are not intrinsically valued from a free speech perspective but are valued to the extent that they enable or promote expression. One might also adopt the intertwined view if freedom of thought holds only modest value from a First Amendment perspective such that freedom of thought is simply insufficient to generate protection absent a connection to expression. Either way, if the intertwined view is correct, card counting must have a connection to expression in the case at bar or it will not be protected by the Amendment.

By contrast, if the *independent* view is correct, the First Amendment protects freedom of thought even in cases that lack recognized forms

12 See *infra* Part I.C.

of expression. One might adopt the independent view if one believes the Amendment values thought separately from expression and does not require expression in order to kick in. Alternatively, one might believe that thought is only instrumentally valuable from a First Amendment perspective but consider the connection between thought and expression to be so close and important that we need not find expression in any particular case. For example, a law that prohibits certain thoughts without any reference to action arguably violates the Amendment because the very possibility that the state could burden pure thought will hinder thinking in ways that chill expression in other contexts.¹³

A. *Text of the Amendment*

The pertinent portion of the First Amendment states that “Congress shall make no law . . . abridging the freedom of speech, or of the press.”¹⁴ Taken literally, the text of the Amendment provides some support for the intertwined view. Even though freedom of the press and freedom of speech are quite similar, they are both mentioned separately. Freedom of thought is not explicitly enumerated, and so, to the extent it is protected, it is arguably parasitic on freedom of speech, which is explicitly enumerated.

On the other hand, the Supreme Court recognizes rights that are “not unambiguously enumerated in the very terms of the Amendment.”¹⁵ For example, the text never mentions forms of expression that do not literally involve “speech,” but the First Amendment now clearly protects music and painting.¹⁶ Similarly, the First Amendment protects freedom of association, though it never specifically provides for it in the text.¹⁷ The Supreme Court has emphasized that “the Framers were concerned with broad principles, and wrote against a

13 I focus on the intertwined-independent question in the text because it is easier to determine whether courts require expression to invoke the Amendment than to determine what the Amendment values intrinsically or only instrumentally. But the intrinsic/instrumental question is important as well. Suppose, for example, that a court is scrutinizing the state’s interest in regulating expression relative to the First Amendment harms of doing so. If thought is valued for its instrumental effect on expression, then courts can assess First Amendment interests just by focusing on the value of the pertinent expression. By contrast, if thought holds non-instrumental value, then we need to consider the value of *both* free thought and free expression.

14 U.S. CONST. amend. I.

15 *Globe Newspaper v. Superior Court for Norfolk*, 457 U.S. 596, 604 (1982).

16 *See Hurley v. Irish-Am. Gay, Lesbian & Bisexual Grp. of Boston*, 515 U.S. 557, 569 (1995).

17 The Amendment does, however, protect “the right of the people peaceably to assemble.” U.S. CONST. amend. I.

background of shared values and practices.”¹⁸ So if the Amendment can be read as protecting unspoken forms of expression and forms of association that go beyond expression (and beyond rights to peaceably assemble), then it plausibly also protects thought independent of its relationship to expression.

The Supreme Court has said that the Amendment does protect unenumerated rights that “are nonetheless necessary to the enjoyment of other First Amendment rights.”¹⁹ This language could be read to support the intertwined view by suggesting that unenumerated rights must be in service to rights that are already recognized. If an unenumerated right to free thought must be in service to the enumerated right to free speech, it would cast doubt on the independent view. But painting, making music, and dancing receive unenumerated protection, and it is unlikely that they are only protected as a means of promoting speech.

Though freedom of thought is not explicitly mentioned in the First Amendment, the founding generation was probably familiar with the concept.²⁰ The Sixth Circuit has said that “[a] concern for freedom of thought was present at the time of the adoption of the First Amendment, and this provision is closely associated historically with that concern.”²¹ In 1789, Thomas Jefferson wrote a letter to encourage the adoption of the Bill of Rights, stating that “[t]here are rights which it is useless to surrender to the government, and which governments have yet always been found to invade. These are the rights of thinking, and publishing our thoughts by speaking and writing”²² The fact that the founding generation thought about mental privacy makes its absence from the Amendment more notable, yet leaves open the possibility that freedom of thought was already deeply embedded in the enumerated right to free speech. I leave it to others, however, to assess whether evidence of the original meaning of the First Amendment (and the Fourteenth Amendment)

18 *Globe Newspaper*, 457 U.S. at 604.

19 *Id.*

20 See Neil M. Richards, *Intellectual Privacy*, 87 TEX. L. REV. 387, 409–10 (2008).

21 *Vaughn v. Lawrenceburg Power Sys.*, 269 F.3d 703, 718 (6th Cir. 2001). The court also quoted the pre-revolutionary writings of Cato: “Without freedom of thought, there can be no such thing as wisdom; and no such thing as publick liberty, without freedom of speech: Which is the right of every man, as far as by it he does not hurt and control the right of another” 1 JOHN TRENCHARD AND THOMAS GORDON, *CATO’S LETTERS* NO. 15, 110 (Ronald Hamowy ed., Liberty Fund 1995) (1755).

22 Thomas Jefferson, *Letter to David Humphreys*, in 7 THE WRITINGS OF THOMAS JEFFERSON 323 (Lipscomb & Bergh eds., 1903).

better supports the intertwined or independent view and how much such evidence is likely to influence courts today.

B. *First Amendment Rationales*

There is much debate about the underlying purpose or purposes of the First Amendment. I draw attention to just two threads of the discussion. One gives priority to freedom of thought in justifying rights to free expression. In *A History of Freedom of Thought*, J.B. Bury claimed that there is a “natural liberty of private thinking.”²³ Furthermore, it “is unsatisfactory and even painful to the thinker himself, if he is not permitted to communicate his thoughts to others”²⁴ Hence, “[s]ome have preferred, like Socrates . . . to face death rather than conceal their thoughts.”²⁵ In Bury’s view, “freedom of thought, in any valuable sense, includes freedom of speech.”²⁶ In other words, he emphasized that freedom of speech is just a subset of and a prerequisite to freedom of thought.

Along similar lines, Seana Shiffrin has offered a “thinker-based” justification for free speech rooted in the autonomy interests of both speakers and listeners. She writes that “[w]e should understand freedom of speech as, centrally, protecting freedom of thought,”²⁷ even if current doctrine sometimes falls short.²⁸ On her view, we should protect freedom of speech to further the deeper principle of freedom of thought:

[I]t is essential to the appropriate development and regulation of the self, and of one’s relation to others, that one have wide-ranging access to the opportunity to externalize one’s mental contents, to have the opportunity to make one’s mental contents known to others in an unscripted and authentic way, and that one has protection from unchosen interference with one’s mental contents from processes that would disrupt or disable the operation of these processes. That is to say, free speech is essential to the development and proper functioning of thinkers.²⁹

Other theories, she contends, give insufficient pride of place to people’s autonomy interests in their own mental lives:

[M]any popular theories of freedom of speech only make sense if the individual mind and the autonomy of its operation . . . are valued and

23 J.B. BURY, *A HISTORY OF FREEDOM OF THOUGHT* 1 (H.J. Blackham ed., 2d ed. 2007).

24 *Id.*

25 *Id.*

26 *Id.*

27 Seana Valentine Shiffrin, *A Thinker-Based Approach to Freedom of Speech*, 27 CONST. COMMENT. 283, 283 (2011).

28 *Id.* at 284.

29 *Id.* at 294.

treated with respect. If we did not regard the autonomy of the individual mind as important, it is hard to see why we would value its expression or outputs in the way and to the degree that truth theories or democratic theories value speech. The same holds true of speaker-based and listener-based theories.³⁰

Along similar lines, Neil Richards has written that “if there is any constitutional right that is absolute, it is [the freedom of thought and belief], which is the precondition for all other political and religious rights guaranteed by the Western tradition.”³¹ Richards believes that “all leading theories of the First Amendment rest on the importance of freedom of thought.”³² According to Richards, “[a]ny meaningful freedom of speech requires an underlying culture of vibrant intellectual innovation” that nurtures “the engine of expression—the imagination of the human mind.”³³ Moreover, Richards implicitly endorses the independent view, writing that “[t]he First Amendment should protect cognitive activities even if they are wholly private and unshared because of the importance of individual conscience and autonomy.”³⁴

Of course, just because some scholars give priority to freedom of thought in justifying rights to free speech doesn’t mean the Constitution does the same. Moreover, for all the talk of protecting freedom of thought, there is another thread in First Amendment jurisprudence that emphasizes the communicative nature of expression.³⁵ As Eugene Volokh puts it, “[u]nder nearly every theory of free speech, the right to free speech is at its core the right to communicate—to persuade and to inform people through the content of one’s message.”³⁶ If the Amendment is really about promoting communication, free thought may play just a subsidiary role. If, for example, communication is essential to the “marketplace of ideas” rationale for the First Amendment, the Amendment arguably only supports the intertwined view since unexpressed thoughts may never make it to the marketplace.³⁷

30 *Id.* at 288.

31 Richards, *supra* note 20, at 408.

32 *Id.* at 406.

33 *Id.* at 404.

34 *Id.*

35 See, e.g., Lawrence Byard Solum, *Freedom of Communicative Action: A Theory of the First Amendment Freedom of Speech*, 83 NW. U. L. REV. 54 (1989).

36 Eugene Volokh, *Speech as Conduct: Generally Applicable Laws, Illegal Courses of Conduct, “Situation-Altering Utterances,” and the Uncharted Zones*, 90 CORNELL L. REV. 1277, 1304 (2005).

37 Others focus on the role of expression to foster political self-governance or democratic culture in ways that may or may not require independent protection of free thought. *Cf.*, e.g., Jack M. Balkin, *Digital Speech and Democratic Culture: A Theory of Freedom of Expression for*

C. Some Cases Consistent With Intertwinement

Thought privacy is mentioned frequently enough in First Amendment cases that it is clearly protected in some respect. The Supreme Court has stated that the First Amendment protects “freedom of belief,” “freedom of mind,” and “freedom of thought.”³⁸ According to Justice Brandeis, the founding generation “believed that the final end of the State was to make men free to develop their faculties; and that . . . freedom to think as you will and to speak as you think are means indispensable to the discovery and spread of political truth.”³⁹ Justice Cardozo wrote that “the domain of liberty . . . has been enlarged by latter-day judgments to include liberty of the mind as well as liberty of action.”⁴⁰ Chief Justice Burger wrote that a statute that required motorists to display license plates containing the state motto was inconsistent with “the right of freedom of thought protected by the First Amendment,” as “[t]he right to speak and the right to refrain from speaking are complementary components of the broader concept of ‘individual freedom of mind.’”⁴¹ These examples just scratch the surface of the many such references to our “freedom of mind” and other broad statements related to thought privacy in Supreme Court First Amendment jurisprudence.⁴²

Collectively, these statements seem to support a broad right to freedom of thought. But whenever freedom of thought has been protected by the Supreme Court, it has always been in cases that also involve the regulation of expression or expressive conduct. So the Court has never taken a clear position on whether thought must be intertwined with expression in order to be protected.

In *Palko v. Connecticut*,⁴³ for example, the Court stated that “freedom of thought, and speech . . . is the matrix, the indispensable condition, of nearly every other form of freedom.”⁴⁴ By specifically mentioning “freedom of thought and speech” as one freedom, the quote

the Information Society, 79 N.Y.U. L. REV. 1, 3–4 (2004) (stating that “[t]he purpose of freedom of speech . . . is to promote a democratic culture” that “allows ordinary people to participate freely in the spread of ideas and in the creation of meanings that, in turn, help constitute them as persons”).

38 See generally Bruce J. Winick, *The Right to Refuse Mental Health Treatment*, 44 U. MIAMI L. REV. 1, 17 (1989).

39 *Whitney v. California*, 274 U.S. 357, 375 (1927) (Brandeis, J., concurring).

40 *Palko v. Connecticut*, 302 U.S. 319, 327 (1937).

41 *Wooley v. Maynard*, 430 U.S. 705, 714 (1977) (quoting *West Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 637 (1943)).

42 See generally Winick, *supra* note 38, at 135–88 (citing cases).

43 302 U.S. 319 (1937).

44 *Id.* at 326–327.

might suggest that the freedom contains two separate components that are both worthy of independent respect. Or maybe it emphasizes that the two are intertwined. Either way, the language is dicta. The case itself concerns whether the double jeopardy protections of the federal constitution apply to the states through the Fourteenth Amendment.⁴⁵

In *Kovacs v. Cooper*, the Supreme Court held that municipalities are permitted to prohibit trucks with sound amplification systems from making “loud and raucous” noises.⁴⁶ In a concurrence, Justice Frankfurter noted “the steadily narrowing opportunities for serenity and reflection. Without such opportunities freedom of thought becomes a mocking phrase, and without freedom of thought there can be no free society.”⁴⁷ Neil Richards takes *Kovacs* to support his view that the First Amendment protects thought privacy by affording us certain “spaces—physical, social, or otherwise—to allow us to think freely and without interference.”⁴⁸ “Without the space and time to think,” Richards adds, “legal protections on free thought become merely empty promises.”⁴⁹

If indeed *Kovacs* identifies a First Amendment interest in avoiding loud noises in order to promote freedom of thought, it would suggest that the First Amendment protects thought independently. After all, the people potentially annoyed by the loud speakers were not necessarily expressing thoughts at all. Unfortunately, there is little evidence that the Court identified a First Amendment interest in protecting the solemnity of reflection. It seems at least as likely and probably more so that the Court was merely limiting the First Amendment rights of those broadcasting loud noises. Nothing in the opinion shows that the interests in the solemnity of reflection were themselves rooted in the First Amendment.

Unlike the Supreme Court, the Seventh Circuit decided a case that more closely tests whether the First Amendment requires intertwined expression. In *Doe v. City of Lafayette*,⁵⁰ Doe had a record of arrests and convictions for sexually-related crimes against children.⁵¹ In January of 2000, he went to a public park, sat on a bench, and spent about fifteen to thirty minutes watching several children in their ear-

45 *Id.* at 321.

46 336 U.S. 77, 89 (1949).

47 *Id.* at 97 (Frankfurter, J., concurring).

48 Richards, *supra* note 20, at 413.

49 *Id.*

50 377 F.3d 757 (7th Cir. 2004), *rev'd en banc*, 334 F.3d 606 (7th Cir. 2003).

51 *Doe v. City of Lafayette*, 377 F.3d 757, 758–59 (7th Cir. 2004).

ly- to mid-teens play in the park.⁵² Doe admitted having sexual thoughts about the children, including urges to expose himself or have sexual contact with them. But at least in part because of the high number of children present, his thoughts “weren’t realistic at the time” and “were just thoughts.”⁵³ Doe attended a support group where he confessed what happened on this particular day.⁵⁴ A tip to Doe’s probation officer from a confidential source⁵⁵ eventually led the Lafayette parks department to ban Doe from the city’s parks and schools.⁵⁶ Among his claims, Doe argued that the park ban violated his First Amendment rights.⁵⁷

While a three-judge panel agreed,⁵⁸ the Seventh Circuit, sitting en banc, held otherwise. The Seventh Circuit said the ban was imposed because of Doe’s conduct and only incidentally burdened his thoughts.⁵⁹ Moreover, his First Amendment rights were not violated because he did not show that his going to the park was “somehow . . . infused with an expressive element.”⁶⁰ And while “the Supreme Court has defined the boundaries of expression broadly, it never has extended the protections of the First Amendment to non-expressive conduct.”⁶¹ So while *City of Lafayette* seems to permit banning a person from a public park based on his confessed thoughts and his act of going to a public park, the Seventh Circuit nevertheless held that he was not entitled to First Amendment freedom of thought protection. To have warranted such protection, his thoughts needed to be intertwined with expression.

D. Some Cases that Arguably Require Independence

Ironically, however, dicta in *Doe v. City of Lafayette* provide surprisingly strong support for the independent view. In emphasizing that Doe’s ban was imposed not just for his thoughts, but for his associated actions, the Seventh Circuit stated that “[a] government entity no doubt runs afoul of the First Amendment when it punishes an indi-

52 *Id.* at 759.

53 *Id.* at 760.

54 *Id.* at 775 (Williams, J., dissenting).

55 *Id.* at 759.

56 *Id.* at 760.

57 *Id.* at 762–63.

58 *Doe v. City of Lafayette*, 334 F.3d 606, 613 (7th Cir. 2003).

59 *Doe v. City of Lafayette*, 377 F.3d 757, 766–67 (7th Cir. 2004).

60 *Id.* at 764.

61 *Id.* (internal citation omitted).

vidual for pure thought.”⁶² If the statement is true, it seems like the First Amendment protects freedom of thought independent of expression. The First Amendment cannot require intertwinement with expression if it forbids legislation that punishes pure thought. The statement was only dicta, however, because the Seventh Circuit believed that the ban in this case was imposed because of Doe’s conduct. And so long as a government restriction has some connection to conduct, the Seventh Circuit reasoned, the government can regulate thought incidentally.

Stanley v. Georgia is probably the Supreme Court case that most strongly supports the independent view. In *Stanley*, the defendant was charged with knowingly possessing obscene films in his home.⁶³ The Court held that the First Amendment “prohibit[s] making mere private possession of obscene material a crime,”⁶⁴ and the case is adorned with grand language about our freedom of thought: “[i]f the First Amendment means anything, it means that a State has no business telling a man, sitting alone in his own house, what books he may read or what films he may watch.”⁶⁵ Indeed, “[o]ur whole constitutional heritage rebels at the thought of giving government the power to control men’s minds.”⁶⁶ Moreover, “[w]hatever the power of the state to control public dissemination of ideas inimical to public morality, it cannot constitutionally premise legislation on the desirability of controlling a person’s private thoughts.”⁶⁷

Stanley, more so than other Supreme Court cases invoking freedom of thought, could be construed as taking a position in the independence-intertwinement debate. The Court states in dicta that “the right to control the moral content of a person’s thoughts. . . . is wholly inconsistent with the philosophy of the First Amendment.”⁶⁸ Nowhere does the Court explicitly limit the prohibition on mind-controlling regulations to those affecting expression. Moreover, the films in *Stanley* were deemed obscene, which means they fall into a category generally not protected by the First Amendment.⁶⁹ If so, one could argue that the protection of Stanley’s thoughts was not connected to expression at all but was based on some independent prin-

62 *Id.* at 765. In context, “pure thought” means thought unconnected to action; it does not mean morally pure.

63 *Stanley v. Georgia*, 394 U.S. 557, 558 (1969).

64 *Id.* at 568.

65 *Id.* at 565.

66 *Id.*

67 *Id.* at 566.

68 *Id.* at 565–66.

69 *Roth v. United States*, 354 U.S. 476, 484–85 (1957).

principle of freedom of thought that the Court seems to have located in the First Amendment.⁷⁰

But on its face at least, *Stanley* could also be understood as a case about expression: namely, the expression in the films that *Stanley* possessed. At least non-obscene motion pictures constitute protected expression,⁷¹ and the films may have been deemed sufficiently expressive to make regulations controlling people's access to the films inappropriate, even though the films do not themselves receive full First Amendment protection. Thus, it is not clear whether the Court sought to protect freedom of thought as such or only to the extent that thought is sparked by expressive media.

In *Ashcroft v. Free Speech Coalition*,⁷² the Supreme Court gestured in a familiar way to free thought, noting that "First Amendment freedoms are most in danger when the government seeks to control thought or to justify its laws for that impermissible end."⁷³ It took a small step in support of the independent view by stating that "[t]he right to think is the beginning of freedom, and speech must be protected from the government because speech is the beginning of thought."⁷⁴ While the statement is far from crystal clear, it could be read to suggest that interests in free speech are in service to interests of free thought. Again, however, I doubt we can much rely on the Court's high-minded rhetoric when we someday face cases that actually put the priority of freedom of thought to the test.

Bruce Winick argued that the First Amendment ought to protect people from state efforts to involuntarily medicate them with drugs

70 Cf. Marc Jonathan Blitz, *The Freedom of 3D Thought: The First Amendment in Virtual Reality*, 30 CARDOZO L. REV. 1141, 1150–51 (2009). A recent Second Circuit case may support a reading of *Stanley* consistent with the independent view. See *United States v. Valle*, 807 F.3d 508, 511 (2d Cir. 2015). The court sought to draw a line between mere fantasies of violence and the creation of an actual criminal conspiracy to commit violent acts. The majority cited *Stanley* for the proposition that "[w]e are loath to give the government the power to punish us for our thoughts and not our actions." *Id.* The statement arguably suggests that *Stanley* was a case about punishing thought, independent of action (expressive or otherwise).

71 See *Joseph Burstyn, Inc. v. Wilson*, 343 U.S. 495, 501 (1952) ("It cannot be doubted that motion pictures are a significant medium for the communication of ideas. They may affect public attitudes and behavior in a variety of ways, ranging from direct espousal of a political or social doctrine to the subtle shaping of thought which characterizes all artistic expression. The importance of motion pictures as an organ of public opinion is not lessened by the fact that they are designed to entertain as well as to inform.") (footnote omitted).

72 535 U.S. 234 (2002).

73 *Id.* at 253.

74 *Id.*

that alter thought processes.⁷⁵ If his view is correct, the First Amendment may provide direct protection for freedom of thought since concerns about involuntary medication are not necessarily intertwined with expression. But even these cases are closely tied to expression because the involuntary administration of psychoactive drugs likely affects the way recipients express themselves.⁷⁶ Furthermore, the Supreme Court has never held that forced medication violates the First Amendment and never mentioned the First Amendment in its important decision in *Sell v. United States*, which held that, under some conditions, the government can forcibly medicate defendants to make them competent to stand trial.⁷⁷

Thus, looking at First Amendment cases overall (and I have only scratched the surface), one might conclude that there is little evidence that the First Amendment independently protects freedom of thought. Alternatively, the same data support the view that it would largely be a matter of first impression as to whether thought receives intertwined or independent protection.

II. PURE THOUGHT CRIME AND THE CASE FOR INDEPENDENT PROTECTION

A law in New York prohibits registered sex offenders from working on ice cream trucks.⁷⁸ Indeed, a proposed bill would have made doing so a felony.⁷⁹ Legislators presumably fear that such jobs give sex offenders too much unsupervised access to children. And why limit the reach of such laws, they may someday ask, to those who have already been convicted of sex offenses? Why not make it a crime for anyone working on an ice cream truck to have sexual urges directed at children? While some may be incapable of controlling their thoughts and urges, if they know they have such urges at least with any frequency, they could be prohibited from working on ice cream trucks under penalty of law.

75 Bruce J. Winick, *The Right to Refuse Mental Health Treatment: A First Amendment Perspective*, 44 U. MIAMI L. REV. 1, 9 (1989); see also *id.* at 6 n.20 (identifying supportive statements from various federal courts).

76 *Cf. Mackey v. Procunier*, 477 F.2d 877, 877–78 (9th Cir. 1973) (holding that a prisoner could state a civil rights claim where he alleged he was involuntarily treated with a “breath-stopping and paralyzing ‘fright drug’” because it might constitute “cruel and unusual punishment or impermissible tinkering with the mental processes”).

77 *Sell v. United States*, 539 U.S. 166, 169 (2003).

78 N.Y. CORRECT. LAW § 168-v (2005).

79 A4847, 2013 Gen. Assemb. Reg. Sess. (N.Y. 2013), available at <https://trackbill.com/bill/NY/2013/A4847/makes-the-failure-of-a-sex-offender-to-register-or>.

One problem with this hypothetical law is that it's difficult to determine who has sexual fantasies about children. But as I noted in the introduction, researchers are developing techniques to make such assessments possible. For example, neuroscientists are working on brain-based forms of lie detection that could be used to query ice cream truck employees.⁸⁰ Such tests may eventually prove more accurate than polygraphs.⁸¹ Already, a couple of companies are selling or have sold brain-based lie detection services, though courts have so far refused to admit their results into evidence.⁸²

Research studies using fMRI report distinguishing honesty and deception at accuracies roughly between 70% and 90%,⁸³ but such testing has been in artificial contexts and may be flummoxed by subjects taking countermeasures to fool such tests.⁸⁴ Researchers are also working on methods of deception detection that do not require subjects to sit calmly in a brain scanner. One team claims to have developed software that analyzes actual trial transcripts along with information about witness gestures to assess deception more accurately than humans do.⁸⁵

Eventually, we may have methods of lie detection that are practical, cost-effective, and consistently more accurate than we are. If so, the government may seek to use these methods in a variety of civil or criminal contexts. For example, offenders seeking parole might be asked about their sexual or violent fantasies while their brains are assessed for truthfulness. Since these scanners may not require verbal responses, they arguably do not implicate rights of *expression*. Might

80 Current law, at least, would limit the use of such technologies *by employers*. See Employee Polygraph Protection Act, 29 U.S.C §§ 2001–2009 (2006).

81 Cf., e.g., Anthony Wagner, *Can Neuroscience Identify Lies?*, in A JUDGE'S GUIDE TO NEUROSCIENCE: A CONCISE INTRODUCTION 13, 14 (Michael S. Gazzaniga & Jed S. Rakoff eds., 2010) (“It is my conclusion that there are no relevant published data that unambiguously answer whether fMRI-based neuroscience methods can detect lies at the individual-subject level.”).

82 See *United States v. Semrau*, 693 F.3d 510, 516 (6th Cir. 2012) (excluding brain-based lie detection evidence under Federal Rules of Evidence 403 and 702); *Wilson v. Corestaff Servs. L.P.*, 900 N.Y.S.2d 639, 642 (N.Y. Sup. Ct. 2010) (excluding brain-based lie detection evidence in a civil case mainly on the grounds that credibility is a jury question).

83 Frederick Schauer, *Lie-Detection, Neuroscience, and the Law of Evidence* in PHILOSOPHICAL FOUNDATIONS OF LAW AND NEUROSCIENCE 85, 93 (Dennis Patterson & Michael S. Pardo eds., 2016).

84 See Giorgio Ganis et al., *Lying in the Scanner: Covert Countermeasures Disrupt Deception Detection by Functional Magnetic Resonance Imaging*, 55 NEUROIMAGE 312, 312 (2011).

85 See Verónica Pérez-Rosas et al., *Deception Detection Using Real-life Trial Data*, PROCEEDINGS OF THE 2015 ASSOCIATION FOR COMPUTING MACHINERY INTERNATIONAL CONFERENCE ON MULTIMODAL INTERACTION, 59–66 (2015); Press Release, University of Michigan, *Lie-Detecting Software Uses Real Court Case Data* (Dec. 10, 2015), available at <http://ns.umich.edu/new/releases/23356-lie-detecting-software-uses-real-court-case-data>.

the *thoughts* of potential parolees nevertheless be protected from government inquiry?

A. *The Legal Basis for the Voluntary Act Requirement*

An English statute from 1351 deemed it treasonous to “imagine” the death of the King, Queen, or King’s eldest son and heir.⁸⁶ Some have argued that the crime consisted simply of imagining the death of the monarch and did not require any further effort to cause harm.⁸⁷ If so, the statute punished a pure thought crime: a crime defined in terms of mental states alone without reference to an action (or to an omission to act when one has a duty to do so).

The ability to punish real or alleged thought crimes clearly enlarges the government’s power. In this particular case, the king sends the message that the crown is so important that any threat to it must be eliminated at its earliest stage. Furthermore, given the difficulties of proving what someone imagined, a government can use pure thought crimes to punish dissenters by accusing them of thought crimes—whether they occurred or not.

Nowadays, it is generally agreed, as the Model Penal Code states, “that a civilized society does not punish for thoughts alone.”⁸⁸ Under the criminal law’s voluntary act requirement, we do not punish people’s culpable mental states unless they take some implementing action (or fail to act when they are required to).⁸⁹

The constitutional basis for the voluntary act requirement, however, is hazy.⁹⁰ States, following the lead of the Model Penal Code, may have statutes requiring crimes to contain a voluntary act.⁹¹ But without a constitutional basis, states can just pass other laws revoking such

86 Statute of Treasons, 1351, 25 Edw. 3, ch. 2.

87 See George Fletcher, *The Case for Treason*, 41 MD. L. REV. 193, 198 (1982) (noting the view of Thomas Hobbes). Others have argued that even this ancient statute required an overt act to implement the traitorous thought. *Id.* (noting the view of Lord Coke).

88 MODEL PENAL CODE AND COMMENTARIES § 2.01, cmt. 1 at 214–15 (1985). As Michael Moore puts it, “we blame people for their overt physical actions, not for what they think (no matter how actively they will their thoughts).” MICHAEL S. MOORE, *ACT AND CRIME* 23 (1993).

89 Doug Husak has criticized the voluntary act requirement, arguing that what really matters is whether a person was in control, not whether or not he acted. Douglas Husak, *Rethinking the Voluntary Act Requirement*, 28 CARDOZO L. REV. 2437, 2438 (2007).

90 In *Robinson v. California*, 370 U.S. 660 (1962) and *Powell v. Texas*, 392 U.S. 514 (1968), the Supreme Court recognized that it is unconstitutional to punish someone merely for his *status*. These decisions, however, likely have a smaller scope than does the voluntary act requirement.

91 See, e.g., MODEL PENAL CODE § 2.01 (“A person is not guilty of an offense unless his liability is based on conduct that includes a voluntary act . . .”).

requirements. Or they could create crimes that punish pure thought notwithstanding a conflict with a more general law. Under the principle of *lex specialis*,⁹² the more specific law criminalizing thought might well survive.

If push came to shove and a law really did violate the voluntary act requirement, I suspect a court would find a constitutional basis for nullifying it. Whether that protection would come from the First Amendment is less clear. Given frequent judicial proclamations that the First Amendment protects freedom of thought, the Amendment is surely a top contender. That was certainly the view of the Seventh Circuit in *Doe v. Lafayette* which, as mentioned, stated in dicta that “[a] government entity no doubt runs afoul of the First Amendment when it punishes an individual for pure thought.”⁹³ A different court might find a basis in substantive due process or in a combination of constitutional provisions. But it would not be surprising if the First Amendment at least lends support to the constitutional grounding of the voluntary act requirement.

The bottom line, then, is that a plausible case can be made that the First Amendment prohibits pure thought crimes. And because pure thought crimes do not in any obvious way implicate expression, we have some support for the independent view: the First Amendment plausibly protects thought independent of expression.

How important is this protection? Just as kings have sought to punish pure thought crimes, it is not unimaginable that casinos could lobby legislators to criminalize pure card counting. Casinos could use surveillance cameras to track players’ eye movements as they scan cards at the table; cameras might also show subtle lip movements players inadvertently make as they mentally count cards. Using such technology, casinos could likely prove, in at least some cases, that a person was counting cards in his head—even if he never placed a bet. Since casinos often feel threatened by the prospect of card counting, they might support legislation to cut it off at its most inchoate stage. If a jurisdiction tried to ban mere card counting—simply keeping track of the card count without betting based on the information—the law would plausibly violate the First Amendment.

Matters get more complicated, however, if a law prohibits *betting* on one’s mental computations since that would prohibit thoughts

92 See Otto Kirchheimer, *The Act, the Offense and Double Jeopardy*, 58 YALE L.J. 513, 517–18 (1949) (explaining the principle that laws specifically addressing a matter in dispute are traditionally given greater weight than laws addressing the matter in more general terms).

93 *Doe v. City of Lafayette*, 377 F.3d 757, 765 (7th Cir. 2004).

conjoined with a particular action. Before addressing this more difficult question, I first provide additional background on card counting.

B. Background on Card Counting

In typical casino blackjack games, players receive two cards face-up. They can request additional cards (one at a time) or stick with the cards they have already been dealt. The goal is to hold cards with a higher sum than the dealer holds without going over twenty one. Once a player's hand totals more than twenty one, he "busts" and loses immediately. If the player wins, he ordinarily doubles his money. The best hand, called blackjack, consists of an ace (valued at eleven in such instances) and any ten card (meaning a jack, queen, king, or the ten card itself). When players have blackjack, they usually make a 150% profit on their initial investment.

The dealer also begins the game with two cards, one of which is face down while players are betting. After players have decided how to play their hands, the dealer may receive additional cards according to well-defined rules that give dealers no discretion. Most importantly, dealers are required to take additional cards until their hands total seventeen or higher.

Since players are competing against the dealer rather than each other, casinos typically allow players to see each other's hands. Card counters use the publicly available information about the other cards on the table to adjust their betting decisions. When few ten cards have been played, for example, more ten cards are likely to arise in upcoming hands. And when ten cards are more likely, players gain a slight advantage over the house because they are more likely to have blackjack (paid at 150% profit), and dealers are more likely to bust, since they must take an additional card even with a dangerously high hand of sixteen.⁹⁴

While there are a variety of card counting systems, card counters typically convert each face-up card into a number that they add to a running total. The running total informs how they play their hands. They will usually bet modest sums until the deck turns to their favor, at which point they dramatically ramp up the size of their bets.

The task of card counting is difficult because casinos are noisy, and cards are dealt quickly. Players must use nearly flawless strategy to play their own hands, while keeping track of the many other cards

⁹⁴ See Anthony Cabot & Robert Hannum, *Advantage Play and Commercial Casinos*, 74 MISS. L. J. 681, 690–93 (2005); Tom Julian, *Exclusions and Countermeasures: Do Card Counters Have a Right to Play?* 9 GAMING L. REV. 165, 165 (2005).

that are dealt. If they succeed, they can develop a statistical edge over the house. Using the best blackjack strategy possible without counting cards, the house advantage is below 0.5%. Using the best possible strategy and counting cards, players can gain a 0.5% to 1.5% advantage over the house.⁹⁵

Casino owners became especially concerned about card counting soon after the publication of math professor Edward Thorp's book *Beat the Dealer* in 1962.⁹⁶ I have no evidence that casinos sought legislation to criminalize card counting. Perhaps a ban would have offended people's actual or perceived rights to freedom of thought. Perhaps casinos expected to profit from customers who believed they could count cards successfully but couldn't.⁹⁷ Or perhaps casino owners had a different strategy. At a conclave organized soon after the publication of Thorp's book, one casino manager recalls the following proposed alternative method of dispute resolution: "Break a few legs, and I'll betcha the word will get out real quick that it just ain't healthy to try to play that count thing in our joints . . . that is, unless they like hospital food."⁹⁸ Indeed, during this period, some legs may have been broken.

By and large, casinos chose instead to change various rules of blackjack to improve house odds. These changes proved unpopular however.⁹⁹ Today, most casinos respond to the threat of card counting by shuffling more frequently and using several decks of cards simultaneously to make counting more difficult and less profitable.¹⁰⁰ Where permitted by law, casinos also seek to identify card counters and force them to leave the premises.¹⁰¹ (In New Jersey, however, a state gaming statute and associated regulations have been interpreted to prohibit casinos from ejecting players merely because they count cards.)¹⁰²

95 Cabot & Hannum, *supra* note 94, at 693; see also Martin H. Millman, *A Statistical Analysis of Casino Blackjack*, 90 AM. MATHEMATICAL MONTHLY 431, 431, 434 (1983) (estimating a possible 1.35% advantage when four decks are used and 0.91% when six decks are used).

96 See EDWARD O. THORP, *BEAT THE DEALER* (1962).

97 See WILLIAM POUNDSTONE, *FORTUNE'S FORMULA: THE UNTOLD STORY OF THE SCIENTIFIC BETTING SYSTEM* 109 (2010) (stating that in the early days of card counting, "[f]or every successful counter, there were hundreds who merely *thought* they could count cards successfully").

98 *Id.* at 110.

99 *Id.* at 110–11.

100 *Id.* at 111.

101 See, e.g., *Uston v. Hilton Hotels Corp.*, 448 F. Supp. 116, 118 (D. Nev. 1978) (holding that a casino in Nevada that ejected a card counter did not violate his federal civil rights).

102 *Uston v. Resorts Int'l Hotel*, 445 A.2d 370, 373 (N.J. 1982).

C. *Impure Card Counting*

As I have already suggested, a law prohibiting mere card counting would likely be unconstitutional, plausibly because of the First Amendment. But would the Amendment protect *betting* based on the card count? At least on a narrow interpretation, the voluntary act requirement would be powerless against it because the imagined statute contains an overt act. Granted, these overt acts have to have some nexus with prohibited mental states. We would not punish “intending to kill the king” while “playing checkers,” because playing checkers, while undoubtedly an act, is not an act that in some way implements or executes the culpable mental state.¹⁰³ Similarly, we would not punish someone for having a culpable thought or intention “while strolling around” as strolling around would not ordinarily implement or execute a culpable thought or intention. But we could likely punish card counting while betting at a casino without violating the voluntary act requirement.

So, to make my hypothetical card counting prohibition more realistic, when I speak simply of “card counting,” I will hereafter speak of card counting that satisfies the voluntary act requirement by prohibiting something like “knowingly increasing one’s bet at blackjack at a licensed gaming establishment when one believes that the card count is in the player’s favor.” (Our statute would also have to define card counting in ways that are not too vague.) Alternatively, our hypothetical statute could prohibit “knowingly increasing one’s bet based on information obtained from cards dealt to other players.” Either way, the prohibition I will discuss punishes the combination of certain mental processes along with the act of betting or modifying one’s bet at blackjack. My discussion will be of sufficient generality that we won’t need a precise hypothetical statute. But certain versions may raise more serious thought censorship concerns than others.

Importantly, there may be players who are so mathematically inclined that they can barely prevent themselves from keeping track of other players’ cards. At least when narrowly construed, however, the voluntary act requirement would offer them no help. If they cannot avoid counting cards, then they should stop increasing their bets when the card count is favorable or stop playing completely.

Card counters also *refrain* from betting or refrain from increasing their bets when the card count is *unfavorable*. During these times, card counters at least outwardly behave in ways that are virtually in-

103 See MOORE, *supra* note 88, at 19 n.5.

distinguishable from other players. A statute that sought to prohibit refraining from increasing one's bet would present a close call from the perspective of the voluntary act requirement, since we only prohibit omissions to act when people have a duty to do so. Perhaps a legislature could give us a duty to continue betting even when the card count turns unfavorable, but such a duty would be exotic to say the least. For simplicity, I will imagine that our hypothetical statute only prohibits voluntary acts of betting and not voluntary omissions to bet. I also leave aside myriad interesting questions about what would constitute attempted card counting or aiding and abetting.

III. THOUGHT-CONDUCT CRIME AND THE FIRST AMENDMENT

I have argued that the First Amendment plausibly protects thought independent of expression, where, for example, a person counts cards without betting on them. Matters are hazier when thought is conjoined with action. When I've informally queried law professors in workshop settings as to whether a prohibition on betting while counting cards would violate the First Amendment, crowds have tended to split about fifty-fifty.

To assess whether our hypothetical prohibition would violate the First Amendment, we must first consider whether the pertinent actions could be deemed expressive. If betting based on the card count is expressive, such betting may be protected under traditional free expression principles regardless of whether we adopt the independent or the intertwined view. If, however, card counting is not expressive, then it won't be protected under traditional principles and the independent view would provide its only hope for First Amendment protection.¹⁰⁴ I first consider whether card counting might be protected expression and then consider how it might be protected even if it is not.

A. *Protection Under the Intertwined View*

At least at first glance, blackjack is not the sort of activity typically considered expressive under current doctrine. Unlike books, magazines, and films that are readily given First Amendment protection, communication in blackjack is fairly limited. In terms of the expressiveness of the conduct, dealing cards is probably not "inten[ded] to

¹⁰⁴ I do not address the possibility that card counting might be protected under freedom of conscience principles in the religion clauses of the First Amendment.

convey a particularized message”¹⁰⁵ nor is it understood to do so. Indeed, the message is random and likely to be interpreted as such. Moreover, we already recognize numerous limits on how casinos can run their games, and they are not typically thought to burden First Amendment activities. But even if underwhelming, a case can be made that card counting is protected expression. I will try to make the argument as forcefully as I can, but I do not deny that many judges would be skeptical.

1. *The Expressiveness of Blackjack and Card Counting*

While playing cards lack many of the expressive qualities of books or films, blackjack surely includes communicative elements. Dealers display graphic symbols, and gamblers respond with decisions about how to play their hands. It would be a mistake to dismiss the expressive qualities of blackjack simply because the message in the cards is random: that’s the whole point of games of chance like blackjack. The message is intended to be a random expression. The old “Choose-Your-Own-Adventure” books (in which readers jump to particular pages based on the storylines they prefer) are no less expressive because the books contain an interactive component. Indeed, the message of these books is largely conveyed by the lack of a fore-ordained plan.¹⁰⁶

The Supreme Court has made clear that modern video games receive First Amendment protection.¹⁰⁷ They are protected not in spite of the role that chance plays in these games but partly because of it: “video games communicate ideas—and even social messages—through many familiar literary devices (such as characters, dialogue, plot, and music) and through features distinctive to the medium (such as the player’s interaction with the virtual world).”¹⁰⁸ While ca-

¹⁰⁵ Spence v. Washington, 418 U.S. 405, 410–11 (1974).

¹⁰⁶ Cf. Brown v. Entm’t Merch. Ass’n, 131 S.Ct. 2729, 2737–38 (2011) (stating that the interactive nature of choose-your-own adventure stories does not make them less deserving of protection than traditional media).

¹⁰⁷ *Id.* at 2733.

¹⁰⁸ *Id.* In declaring that older, first generation video games lacked the kind of expression warranting protection, one federal district court said that “a video game, like a pinball game, a game of chess, or a game of baseball,” is principally about entertaining and lacks the “informational element[s]” required for First Amendment protection. *America’s Best Family Showplace Corp. v. City of New York, Dep’t of Buildings*, 536 F. Supp. 170, 174 (E.D.N.Y. 1982). As video games grew increasingly detailed and complex, however, the tide shifted. See *Am. Amusement Mach. Ass’n v. Kendrick*, 244 F.3d 572, 573 (7th Cir. 2001) (holding that an ordinance restricting minors’ access to violent video games implicated the First Amendment); *Sanders v. Acclaim Entm’t, Inc.*, 188 F. Supp. 2d 1264, 1279

sino blackjack lacks the storylines of modern video games, Marc Blitz has argued that the rationale for extending First Amendment protection to modern video games ought to apply to board games and other forms of low-tech gaming.¹⁰⁹ Such games may lack storytelling elements like plot and characters but so do clearly protected forms of expression like “the dancing colors and shapes in the animations of German experimental filmmakers.”¹¹⁰ And as the Supreme Court has noted, “a narrow, succinctly articulable message is not a condition of constitutional protection, which if confined to expressions conveying a ‘particularized message,’ would never reach the unquestionably shielded painting of Jackson Pollock, music of Arnold Schoenberg, or Jabberwocky verse of Lewis Carroll.”¹¹¹

Finally, even if the typical casino does not intend to send a message when dealing cards, we could imagine a casino that did. Perhaps it permits card counting on a temporary basis to attract customers or expects them to lose money by failing to count properly. Or perhaps it has altered other rules of the game such that management believes the casino can still profit when players are permitted to count cards. At this hypothetical casino, a card counting prohibition would arguably alter the meaning it intends to convey when its employees deal cards. The prohibition would limit the permissible ways in which bettors could legally interpret the casino’s message and that would accordingly limit the casino’s expression. So perhaps there could at least be some circumstances in which a card counting prohibition burdened the First Amendment interests of a casino.

2. Listener Interests and Rights to Process Information

The better place to look for expressive activity in the case of card counting, however, is not at the speaker (principally, the casino) but the listener (principally, the player). Players must process the symbols presented by dealers, and a card counting prohibition could

(D. Colo. 2002) (casting doubt on the informational/entertainment distinction in *America’s Best Family Showplace*).

109 Marc Jonathan Blitz, *A First Amendment for Second Life: What Virtual Worlds Mean for the Law of Video Games*, 11 VAND. J. ENT. & TECH. L. 779, 787, 790–91 (2009). One court upheld a prison ban on the fantasy role-playing game *Dungeons and Dragons*, though prisoners have weaker First Amendment rights than non-prisoners. *Singer v. Raemisch*, 593 F.3d 529, 531, 534 (7th Cir. 2010); see also John Schwartz, *Dungeons and Dragons Prison Ban Upheld*, N.Y. TIMES, Jan. 27, 2010, at A16.

110 Blitz, *supra* note 109, at 787, 790.

111 *Hurley v. Irish-Am. Gay, Lesbian & Bisexual Grp. of Boston*, 515 U.S. 557, 569 (1995) (citation omitted).

raise First Amendment concerns by limiting the way players can receive and process information.¹¹²

For example, some deaf people have cochlear implants that enable them to hear sounds they otherwise couldn't. If the state prohibited cochlear implant manufacturers from transducing foreign-accented communication, the law would likely violate the First Amendment.

Similarly, suppose a blind blackjack player wants to hire someone to tell him what cards he is dealt, but a state statute forbids it. Aside from disability-discrimination concerns, the law would offend the blind person's First Amendment interests. Details about the expressiveness of blackjack would not be especially relevant, nor would it matter whether casinos *intend* for blind people to receive their communications. And we need not rely on the fact that a human translator is speaking to the blind player. If a smartphone with a camera could tell blind people what cards they've been dealt, laws prohibiting such technology arguably raise the same First Amendment concerns.

So whether or not blackjack satisfies ordinary tests for expressiveness, some courts might conclude that we should be allowed to process blackjack-related information as we'd like, free from government control, just as blind and deaf people ought to be allowed to process the information around them free from government control. While a card counting prohibition wouldn't entirely censor card information, it would burden the way people can "listen" to the message. The state can neither prevent you from seeing a new Woody Allen film, nor prohibit you from thinking that the film expresses Allen's existentialist dread. The state can neither prohibit you from reading the Bible nor from identifying secret numerical codes you think it contains. The basic principle that the state cannot dictate how we process information applies not only to books and films but also to street signs, comments strangers make to us on a bus, and the labels on cans of tomato soup. We not only have legal rights to access these varied sources of expression but also have rights to think about them as we'd like.

Thus, we cannot rule out First Amendment protection for card counting under the intertwined view, because a prohibition on card counting would burden our ability to receive and process the kind of

112 Cf. Charles Fried, *Perfect Freedom, Perfect Justice*, 8 B.U. L. REV. 717, 723 (1998) ("A notion of freedom of thought which does not allow the thought to be expressed *or which controls what thoughts one may receive* is immediately and obviously absurd.") (emphasis added).

incidental communication that the First Amendment protects, even when these messages are randomly generated. Consider tarot cards.¹¹³ A law that prohibited private individuals from using tarot cards to inform their stock market purchases would raise First Amendment concerns. It would be ironic if we were more protective of tarot-style random interpretation of future events than the more accurate predictions of future events enabled by card counting.

3. *Card Counting and Thought-Content Discrimination*

The hypothetical prohibition we are considering applies to how one may *bet* when engaging in certain mental computations, and surely the government has broad rights to regulate betting. Indeed, the government can probably prohibit betting on blackjack entirely. So we ought to be skeptical of the relevance of the expressiveness of blackjack and card counting, given that we are considering a prohibition on betting while counting cards.

The prohibition might nevertheless be suspect because it engages in the thought equivalent of content discrimination. The prohibition permits betting on a future event using the basic calculations required to play blackjack (adding up the value of the cards in one's own hand) but not using the more predictive calculations employed by card counters. In more traditional First Amendment terms, a card counting prohibition would arguably constitute content discrimination that limits the ways we are allowed to interpret communications.

Such "thought-content" discrimination arguably raises First Amendment concerns. Though it is difficult to say what the prohibition on content discrimination amounts to in the card counting context,¹¹⁴ such content discrimination could make a card counting prohibition presumptively invalid.¹¹⁵ The Supreme Court has stated that "above all else, the First Amendment means that government has no power to restrict expression because of its message, its ideas, its subject matter, or its content."¹¹⁶

113 Some people use tarot cards as part of their religious practices. See *Kay v. Bemis*, 500 F.3d 1214, 1220 (10th Cir. 2007) (holding that a prisoner could proceed with his First Amendment free exercise claim based on denial of access to tarot cards). So as not to implicate First Amendment religious principles, we can understand the example in terms of tarot-like cards that people invest with deep, though non-religious significance.

114 Cf. Leslie Kendrick, *Content Discrimination Revisited*, 98 VA. L. REV. 231, 239, 242 (2012) ("Perhaps the biggest difficulty with content discrimination is that 'content' is hardly self-defining.")

115 See *R.A.V. v. St. Paul*, 505 U.S. 377, 382 (1991).

116 *Police Dept. of Chi. v. Mosley*, 408 U.S. 92, 95 (1972).

Importantly, even if card counting is *not* an expressive activity as ordinarily understood, it might be deemed sufficiently expressive to make content discrimination off limits. Expression that is ordinarily excluded from protection under the First Amendment, like libel, obscenity, or fighting words, can still be protected from laws that discriminate based on content. As Justice Antonin Scalia stated in *R.A.V. v. City of St. Paul*, “the government may proscribe libel; but it may not make the further content discrimination of proscribing only libel critical of the government.”¹¹⁷ Similarly, a city council could not “enact an ordinance prohibiting only those legally obscene works that contain criticism of the city government or, indeed, that do not include endorsement of the city government.”¹¹⁸

Thought censorship in the card counting context is not as troubling as the censorship in Scalia’s examples. A card counting prohibition, invasive as it would be, would not pertain to issues of such public importance. Yet “[n]o suggestion can be found in the Constitution that the freedom there guaranteed for speech and the press bears an inverse ratio to the timeliness and importance of the ideas seeking expression.”¹¹⁹ Moreover, a card counting prohibition would arguably mean that the state is restricting predictions about the future in ways that depend on the factual accuracy of those predictions. While the state “may punish people for causing various harms, directly or indirectly[,] it generally may not punish speakers when the harms are caused by what the speaker said—by the persuasive, informative, or offensive force of the facts or opinions expressed.”¹²⁰ And the harm that would motivate a card counting prohibition would be directly related to the value of the information card counting provides.

Of course, one could argue that a card counting prohibition would not constitute content discrimination at all. The purpose of the law would simply be to avoid a particular kind of societal harm—namely, obtaining above-fair-rate odds at blackjack (where the fair rate is the minimum advantage the house has relative to players who make the most strategic choices without counting cards). So phrased, the government would arguably not be trying to meddle

117 505 U.S. at 384.

118 *Id.*; see also Marc Jonathan Blitz, Stanley in *Cyberspace: Why the Privacy Protection of the First Amendment Should Be More Like That of the Fourth*, 62 HASTINGS L.J. 357, 394 (2010).

119 *Bridges v. California*, 314 U.S. 252, 269 (1941).

120 Volokh, *supra* note 36, at 1301. Volokh recognizes exceptions for speech outside the typical categories of First Amendment expression. *Id.* at 1301 n.112.

with people's thoughts; it would just be protecting the profits of a highly-regulated industry that pays a lot in taxes.

On the other hand, every time the government engages in content discrimination, we can imagine some superficially content-neutral explanation. A law banning anarchists from journalism jobs could be said to protect content-neutral interests in reducing violence and disorder. The fair profits rationale for prohibiting card counting may be a facade as well because even if the government is seeking fair returns to casinos, the rationale for banning card counting is centrally tied to the government's promotion of less acute rather than more acute observations of the betting table. Unlike false speech, which sometimes has lower value than true speech (as in cases of defamation), card counting predictions are more accurate than predictions made without card counting. Moreover, it is hardly obvious what odds are "fair" in a game that is rigged to give the casino an advantage. There is no official rule of blackjack that makes card counting impermissible. Indeed, some members of a team of churchgoing card counters describe the activity as a spiritual enterprise to take money away from exploitative casinos.¹²¹

Finally, even a content-neutral prohibition on card counting might be suspect in the unlikely event that card counting were deemed symbolically expressive.¹²² In *United States v. O'Brien*, the Supreme Court held that symbolically expressive activities, like sit-ins, vigils, and flag burning, may be protected by the First Amendment even when they are burdened by content-neutral regulations.¹²³ The Court stated:

[W]e think it clear that a government regulation is sufficiently justified if it is within the constitutional power of the Government; if it furthers an important or substantial governmental interest; if the governmental interest is unrelated to the suppression of free expression; and if the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest.¹²⁴

While states certainly have the power to regulate casinos, it's not obvious that a card counting prohibition furthers an "important or substantial" government interest with a restriction that is "no greater than is essential to the furtherance of that interest." Without a criminal prohibition on card counting, Las Vegas casinos make adequate

121 HOLY ROLLERS: THE TRUE STORY OF CARD COUNTING CHRISTIANS (Warner Bros. 2012).

122 391 U.S. 367 (1968).

123 See *id.* at 376-77; see also *Texas v. Johnson*, 491 U.S. 397, 403, 406 (1989).

124 391 U.S. at 377.

profits by ejecting people they believe are counting cards, and there are many successful techniques for identifying card counters.¹²⁵

Even if casinos have difficulty identifying card counters, they could simply use the approaches taken by Atlantic City casinos which are prohibited from ejecting card counters by a New Jersey Supreme Court decision.¹²⁶ These casinos shuffle the cards more frequently and alter other practices to make card counting less profitable. And they still generate enormous revenues tied to blackjack. Casinos might even go further and form contracts with players that prohibit them from card counting. All of these approaches avoid the need for criminalization. Of course, it's easy to invent a hypothetical criminal law and then show that it's unnecessary. The key point, though, is that even if the expressive interests in card counting are not especially high, the interests in burdening the activity are not especially high either.

4. *Blackjack and Commercial Speech*

The value of the expression associated with card counting may depend on the context. It might be constitutional to prohibit card counting in the highly regulated casino environment but unconstitutional to do so for casual blackjack games played in people's homes without wagering real money. Casinos are businesses, and commercial speech receives less protection than non-commercial speech.¹²⁷

The "core notion of commercial speech" refers to expression that "does no more than propose a commercial transaction."¹²⁸ Under some card counting strategies, even after a bet is placed, players might alter how they play based on the card count. Since they have already set their bets, the information provided by card counting would not pertain to a *proposed* transaction. More generally, however, players do adjust their bets based on the card count in ways that arguably propose an economic transaction.

At the same time, blackjack is not solely a commercial transaction. Even card counters can appreciate blackjack's entertainment value. When speech does more than propose an economic transaction, the Supreme Court has focused on three factors to assess whether speech is commercial. Speech is more likely to be deemed commercial when

125 *Casino System to Spot Card Counters Before They Cash In*, *supra* note 11.

126 *Uston v. Resorts Int'l Hotel*, 445 A.2d 370, 371 (N.J. 1982).

127 *Bolger v. Youngs Drug Prods.*, 463 U.S. 60, 64-65 (1983); *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y.*, 447 U.S. 557, 562-63 (1980).

128 *Bolger*, 463 U.S. at 66 (internal quotation marks omitted).

it constitutes an advertisement, refers to particular products (or services), and has an economic motivation.¹²⁹ So viewed, card counting at blackjack does not fit the traditional mold of commerce. It's not an advertisement and does not clearly refer to a product or service. It probably has an economic motivation, though, as noted, it also has entertainment value. So card counting probably does not relate "solely to the economic interests of the speaker and audience."¹³⁰

More importantly, however, typical rationales for giving less protection to commercial speech do not obviously apply to the thought processes of the *recipients* of the speech.¹³¹ Suppose, for example, that commercial speech receives less protection than non-commercial speech because: (1) commercial entities have weaker autonomy interests in free expression than non-commercial speakers;¹³² or (2) the government has special interests in protecting consumers from potentially deceptive commercial speech.¹³³ Under either of these rationales, there is no good reason to weaken protection of the thought processes of the recipients of the speech. We can't fix misleading commercial speech by restricting the ways individual consumers can critically analyze it. Indeed, I know of no cases giving commercial speech *listeners* reduced First Amendment rights relative to other listeners.

5. *Replies to Freedom of Thought Minimalists*

As I warned, the argument that the First Amendment protects pure card counting is much stronger than the argument that it protects betting while card counting. According to the view that I'll call "freedom of thought minimalism," we are allowed to punish people for thoughts, provided those thoughts are combined with conduct. To the freedom of thought minimalist, we are only protected from laws that *solely* target thought. So long as we punish some conduct along with thought, the law is immune to the First Amendment. The freedom of thought minimalist concedes that we could not punish a

¹²⁹ *Id.* at 66–67.

¹³⁰ *Central Hudson Gas & Elec. Co. v. Pub. Serv. Comm'n*, 447 U.S. 557, 561 (1980).

¹³¹ *See Virginia State Bd. of Pharmacy v. Virginia Citizens Consumer Council*, 425 U.S. 748, 765 (1976) (stating that there is a public interest in disseminating information that makes consumer economic decisions more "intelligent and well informed").

¹³² *Cf. Shiffrin, supra* note 27, at 296 (stating that "commercial speech, by design, issue[s] from an environment whose structure does not facilitate and, indeed, tends to discourage the authentic expression of individuals' judgment").

¹³³ *See Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y.*, 447 U.S. 557, 563 (1980) ("[T]here can be no constitutional objection to the suppression of commercial messages that do not accurately inform the public about lawful activity.").

person merely for counting cards, but claims we can punish those who *bet* based on the card count.

Consider the following argument posed by freedom of thought minimalists to show why we *can* punish those who bet based on the card count: First, the criminal law regularly punishes people for thoughts so long as they are combined with actions (or omissions when one has a duty to act). The doctrine of provocation, for example, makes a person's homicide liability depend on his mental and emotional and state at the time of the killing.¹³⁴ More broadly still, the entire doctrine of *mens rea* implies that certain actions are permissible when one has certain beliefs and intentions but not others.¹³⁵

It is widely agreed, for example, that an act can be criminalized when conjoined with knowledge that the act will cause some prohibited result such as death. Suppose a team of NASA engineers has designed parts for a new space shuttle. Through a series of innovative, Nobel-Prize-worthy computations, one of the engineers realizes that the shuttle will explode soon after it launches. If this engineer takes steps to proceed with the launch secretly knowing that it will explode and cause death, he will be liable for murder. This is so even if his computations are so novel and complex that the others on his team are completely without fault. No one is saying he should not have made the calculations; but once he did, he should not have proceeded with the launch. Similarly, the freedom of thought minimalist argues, people may have a right to monitor the card count, but once they do, they have no right to cause harmful actions while doing so.

This objection raises deep and difficult questions about the distinction, if any, between arguably protected thought-conduct pairings and the day-to-day crimes we regularly punish. As I stated at the outset, my goal here is not to tackle the deep normative question, "when and under what circumstances *should* we punish thought or thought-conduct pairings?" Rather, I make a predictive claim about the sorts of arguments that might be persuasive to courts. Let me, then, consider some reasons why courts might perceive a difference between a criminal prohibition on betting while counting cards and the more general machinery of the criminal law.

One potential difference is that crimes such as murder do not discriminate based on a *method of thinking* in the way that a card counting

134 See, e.g., MODEL PENAL CODE § 210.3(1)(b) (mitigating murder to manslaughter when "committed under the influence of extreme mental or emotional disturbance for which there is reasonable explanation or excuse").

135 See, e.g., MODEL PENAL CODE § 2.02 ("[A] person is not guilty of an offense unless he acted purposely, knowingly, recklessly or negligently . . .").

prohibition would. The ingenious NASA engineer is punished for acting in the face of his knowledge of certain facts no matter how obtained. By contrast, the card counter is punished for relying on a particular method of thinking and that may be especially troubling. For example, if the government can ban card counting, then it can ban some methods of card counting and not others. And if it can punish increasing one's bet based on the card count, then it can ban increasing one's bet because one thinks the dealer is attractive or because one hopes to impress a friend. Such possibilities highlight the ways in which government thought control arguably threatens autonomy and well-being.

The freedom of thought minimalist might respond by arguing that a card counting prohibition is not really aimed at a particular method of thinking. It just bans knowledge of a certain fact (the card count) and acting in spite of it (increasing one's bet to obtain an unfair advantage), much like the murder prohibition that applied to the NASA engineer. In fact, a player who is good at identifying others who count cards and mimics their bets would violate a prohibition framed as "knowingly increasing one's bet believing that the count is in his favor." So, the argument goes, card counters are not being punished for their methods of thinking either but only for having knowledge that they use to cause harm.

Even in this variation, however, our hypothetical prohibition still punishes the card counting mimic for *relying* on a particular method of thinking (albeit thought processes engaged in by others). We might look askance at such punishment, just as we would hesitate to punish someone for investing in the stock market based on advice from someone else's interpretation of tarot cards. In other words, a judge might believe, the card counting prohibition punishes card counters' thoughts in a manner that directly relates to the "persuasive, informative . . . force"¹³⁶ of those thoughts in a way that is not the case for the ingenious engineer.

Freedom of thought minimalists might also note that we allow sentencing enhancements for hate crimes,¹³⁷ meaning we allow increased punishments for crimes motivated by racial and other forms of animus. We also prohibit employment decisions motivated by various forms of discrimination.¹³⁸ If we take the motivating reasons for

136 Volokh, *supra* note 36, at 1301.

137 *Wisconsin v. Mitchell*, 508 U.S. 476, 479 (1993).

138 See, e.g., The Civil Rights Act of 1964 Title VII, 42 U.S.C. § 2000(e) (prohibiting most forms of employment discrimination based on race, ethnicity, religion, gender, and national origin).

people's actions into account in these settings, why can't we do the same in the card counting context?

While the constitutionality of hate crime enhancements and of civil laws against employment discrimination appears to be settled, such laws should plausibly be understood as limited exceptions to more general principles designed to remedy serious forms of discrimination. Admittedly, the Supreme Court does not say these are instances in which thought-content discrimination survives strict scrutiny, but one might argue that that's what is really going on. Indeed, courts might worry that if freedom of thought minimalism were correct, it would make freedom of thought protection too weak. The First Amendment might be powerless to resist sentencing enhancements for those who use calculus to commit a crime or select a victim based on sexual attractiveness. Similarly, it might be powerless to prevent civil laws that ban school teachers who have "deviant" sexual fantasies or bankers who are suspicious of capitalism.

Contra freedom of thought minimalists, such thought-content discrimination seems plausibly prohibited by First Amendment protections on freedom of thought. True, other constitutional provisions might be implicated as well, but given the language already associating freedom of thought with the First Amendment, courts may rely on the First Amendment to protect some forms of thought, even when conjoined with voluntary acts.

Betting while card counting might represent a better than average contender for protection because the harms associated with card counting, if there are any, hardly have the seriousness of the harms of employment discrimination or hate crime. Moreover, recognizing that a law or regulation burdens thought does not mean that the law or regulation is necessarily unconstitutional. It may simply mean that we need to consider the magnitude of the harms associated with the regulation relative to the burden on thought, and a card counting prohibition plausibly fails to survive the balancing.

By contrast, suppose that, in the future, a team of MIT researchers develops self-replicating nanobots designed to identify card counters. When a nanobot finds a card counter, it whispers the player's description into the blackjack dealer's ear. Casino owners across the country begin using the barely-visible nanobots. As time goes on, however, the nanobots periodically malfunction and cause dealers permanent hearing loss. Efforts to find and destroy all the nanobots prove unsuccessful. With no easy solution in sight, state legislatures contemplate banning card counting to preserve dealers' hearing ability. Such bans would still engage in thought-content discrimination, but they would do so for more significant reasons. We might prefer

that legislatures simply ban blackjack, but a law that prohibited card counting to promote health and safety would be more acceptable under these unusual circumstances.

B. Protection Under the Independent View

I have just explored First Amendment protection of betting while card counting under the intertwined view. Another possibility is that the Amendment protects thought independently, even when betting. So, if courts are unpersuaded that card counting implicates First Amendment *expression*, card counting might still warrant protection. There is virtually no evidence, however, as to whether or how independent freedom of thought protection would apply to thought-conduct pairings; we can only speculate.¹³⁹

Courts would likely search for analogues of free expression doctrine in the domain of thought regulation. Judges would ask questions like: are thoughts being burdened in a manner that is content-discriminative? What are the state interests in burdening certain thoughts? What categories of thought, if any, are so low-valued that they do not warrant freedom of thought protection? Can we burden the thoughts of the hypothetical NASA engineer because “knowledge of causing death” is the thought-equivalent of fighting words?

Though the Supreme Court has never explicitly crafted a test for the protection of thought independent of expression,¹⁴⁰ Dana Remus purports to have identified the test the Court would use:

The framework begins with a private realm of free thought into which the government cannot intrude. Where the Court finds that a regulation intrudes upon this private realm, the Court will apply strict scrutiny, evaluating whether the regulation is the least restrictive means of serving a compelling government interest. Where the Court finds that a regulation on conduct has only an incidental impact on a private realm of thought, it will balance the government’s interest with the implicated First Amendment interest.¹⁴¹

139 According to Glenn Cohen, some might defend rape and incest exceptions to an abortion prohibition on the ground that abortions under those conditions have more acceptable motivations than usual. See I. Glenn Cohen, *Are All Abortions Equal? Should There Be Exceptions to the Criminalization of Abortion for Rape and Incest?*, 43 J. L., MED. & ETHICS 87 (2014). Cohen argues, however, that if such reasoning were implemented in the law, it would raise concerns about inappropriate thought policing in violation of the First Amendment. *Id.* His analysis likely requires acceptance of the independence hypothesis since it seems doubtful that, under current doctrine, the typical woman seeking abortion is engaged in First Amendment-protected expression.

140 Dana Remus Irwin, *Freedom of Thought: The First Amendment and the Scientific Method*, 2005 WIS. L. REV. 1479, 1507 (2005).

141 *Id.*

While Remus might be right, it is surely hard to extract the framework by which the Court would decide an independent freedom of thought case when it has never actually done so.

The Seventh Circuit speculated about how the First Amendment might operate independent of expression in *Doe v. City of Lafayette*. As discussed earlier, Doe was a pedophile with a history of sexually assaulting children. He was prohibited from entering public parks in Lafayette, Indiana after an incident in which he admitted watching children play as he fantasized about them and had sexual urges directed toward them.¹⁴² The Seventh Circuit sitting en banc affirmed the lower court's decision and stated in a footnote that if Doe's pedophilic urges trigger First Amendment scrutiny, they would fall under an exception, just like child pornography does:

Even if we were to determine that Mr. Doe's sexual urges somehow triggered First Amendment scrutiny, they would be excepted from First Amendment protection under the incitement and obscenity doctrines. Given the context in which the urges occurred and the action they precipitated, they were, in a very real sense, "directed to inciting or producing imminent lawless action and [were] likely to incite or produce such action." . . . Furthermore, Mr. Doe's urges, if they triggered First Amendment scrutiny, would be characterized as a form of child pornography, the possession and distribution of which has been held unprotected by the Supreme Court.¹⁴³

Of course, the court quickly reiterated that because Doe's conduct did not involve expression, "it is quite unrealistic even to talk about these doctrines in this case."¹⁴⁴ The comments are nevertheless puzzling for at least two reasons. First, the Seventh Circuit mistakenly asserts that if Doe's urges triggered First Amendment scrutiny, they would constitute unprotected child pornography. In *Ashcroft v. Free Speech Coalition*,¹⁴⁵ the Supreme Court struck down federal legislation that banned so-called "virtual" child pornography that appears to depict minors but does not actually depict real people.¹⁴⁶ In deeming virtual child pornography a form of expression covered by the First Amendment, the Court considered it important that no children were actually harmed in its production.¹⁴⁷

Yet no matter how vivid Doe's imagination is, his fantasies seem more like protected virtual child pornography than unprotected ac-

142 *Doe v. City of Lafayette*, 377 F.3d 757, 759–60 (7th Cir. 2004) (en banc).

143 *Id.* at 764 n.7.

144 *Id.*

145 535 U.S. 234 (2002).

146 *Id.* at 239–40, 256.

147 *Id.* at 254.

tual child pornography. No children are harmed when Doe merely invents images in his head. Indeed, if Doe were capable of crafting photo-realistic artwork from his imagination, the work would, almost by definition, constitute protected virtual child pornography.

Second, the Seventh Circuit is mistaken when it suggests more broadly that rights to freedom of thought have categorical exceptions in the way that freedom of expression does. As noted, the Seventh Circuit stated that “[a] government entity no doubt runs afoul of the First Amendment when it punishes an individual for pure thought.”¹⁴⁸ The Seventh Circuit’s view that the First Amendment protects pure thought, in conjunction with its assertion that there are excepted categories of thought, suggests that we *can* punish people solely for thoughts that fall under an exception. If so, it would mean we could punish people merely for having thoughts that would be libelous if expressed but that are *never actually expressed*. It would also mean that we couldn’t punish people merely for having fantasies and urges to rape directed at adults (protected thoughts) but could punish people merely for having fantasies and urges directed at children (unprotected thoughts). Perhaps the Seventh Circuit intended such exceptions to only apply to thought combined with action or perhaps it believed the criminal law’s voluntary act requirement would independently make such laws off limits. But the Seventh Circuit never qualifies its discussion, and it is not obvious how the Seventh Circuit would justify excepting some categories of thought from protection but not others.

1. *The If-Expressed Test*

I will take one modest step toward imagining what freedom of thought doctrine could look like when applied to thought-conduct pairings on the assumption that the First Amendment provides independent protection. Under what I call the “if-expressed” test, we cannot punish you for some thought-conduct pairing if you would be protected from engaging in the same conduct paired with the expression of those thoughts. So, returning to the sorts of cases I described in the introduction, a law prohibiting “camping in a public park while thinking the mayor is incompetent” would violate the First Amendment if a law providing that “camping in a public park while expressing that the mayor is incompetent” would violate the First Amendment. A law that refuses immigration opportunities or welfare

148 Doe v. City of Lafayette, 377 F.3d 757, 765 (7th Cir. 2004).

benefits to those who do not believe in global warming would violate the Amendment if a law that refuses immigration opportunities or welfare benefits to those who express disbelief in global warming would violate the Amendment. Similarly, if Doe's act of going to a public park would have been constitutionally protected had he vocalized his thoughts and urges, then he would have also been protected for going to a public park while merely having sexual thoughts and urges.

The if-expressed test would connect free thought and free speech protection in a modest way. When engaging in some protected speech-conduct pairing, one presumably has thoughts related to one's speech. If we're going to protect thought independent of expression (as we are currently assuming), then we need not require that the thought actually be expressed.

The if-expressed test is surely modest, but it is not trivial. For example, in *Tinker v. Des Moines Independent Community School District*,¹⁴⁹ some students wore black armbands to express objections to the military conflict in Vietnam.¹⁵⁰ The Supreme Court held that Des Moines school officials unconstitutionally violated the students' First Amendment rights when it prohibited the students' expressive activity.¹⁵¹ But if the students had no expressive goal in wearing the armbands or the school had no suppressive goal in prohibiting them, the case might have come out differently. Expressing ideas sometimes acts as a kind of defense to conduct that you could not engage in absent expression.

Now imagine that a student wears an armband to remind himself of his own objections to war and has no intent to express anything to anyone by doing so. Imagine further that a school official sought to prohibit this non-expressive behavior to prevent the student from reminding himself of his own thoughts and feelings. The if-expressed test would prohibit the school official's behavior. If the student had engaged in the same conduct (wearing the armband) while expressing his thoughts or feeling (his opposition to war), his conduct would be protected because of the Supreme Court's decision in *Tinker*. The if-expressed test is non-trivial because it makes clear that you cannot penalize some thought-conduct pairing if you could not penalize the same conduct paired with expressed versions of the thought.

149 393 U.S. 503 (1969).

150 *Id.* at 504.

151 *Id.* at 514.

The if-expressed test is also modest in that it leaves many important questions unaddressed. For example, it tells us little about card counting. The test says that we cannot punish you for betting while counting cards if we could not punish you for betting while expressing card-count-related thoughts. But that still leaves us to decide whether you have a constitutional right to be free from punishment for discussing the card count while betting. To the extent we have such a right, the if-expressed test says that we also have the right to count cards without expressing the card count.

Notice that the if-expressed test has a particular direction. It protects thoughts if their expressed equivalents would be protected. It does not, however, address the reverse direction: whether we can punish expression that would have been protected if it remained merely in thought. This reverse inference is doubtful. For example, we might protect unexpressed “libelous thoughts” without protecting libelous speech. Similarly, we might protect Doe’s sitting in a park with sexual thoughts and urges, even if his expression of those thoughts and urges would have constituted unprotected threats or harassment. In such cases, the if-expressed test is simply silent, and we must fall back on other First Amendment principles.

C. *The Constitutionality of Anti-Device Laws*

Even though we do not generally criminalize card counting, we do criminalize card counting using a device,¹⁵² like a smartphone. When people started using computers to help them count cards in the 1970s, casinos successfully lobbied for legislation to criminalize device-assisted card counting.¹⁵³ Nevada’s anti-device law is fairly typical:

It is unlawful for any person at a licensed gaming establishment to use, or possess with the intent to use, any device to assist:

1. In projecting the outcome of the game;
2. In keeping track of the cards played;
3. In analyzing the probability of the occurrence of an event relating to the game; or
4. In analyzing the strategy for playing or betting to be used in the game,

except as permitted by the commission.¹⁵⁴

152 See, e.g., NEV. REV. STAT. § 465.075 (2013).

153 I. Nelson Rose, *Card Counting Devices Made Criminal*, in BLACKJACK AND THE LAW 80, 82–83 (I. Nelson Rose & Robert A. Loeb eds., 1998).

154 NEV. REV. STAT. § 465.075. While the last part of the anti-device statute allows the state gaming commission to make exceptions, there are currently no exceptions listed for blackjack. Regulations of the Nevada Gaming Commission and State Gaming Control

For example, in the 1980s, a blackjack player was convicted of violating the statute for using special shoes with toe switches wired to a computer strapped to his calf.¹⁵⁵ The computer caused an athletic supporter he was wearing to vibrate in ways that signaled how he should play his hands. While the defendant argued that the anti-device statute was unconstitutionally vague, his argument was unsuccessful.¹⁵⁶

The case does not, however, address potential First Amendment claims. If prohibitions on ordinary card counting raise First Amendment concerns either under the intertwined or independent views, then casino anti-device laws may do so as well. Anti-device laws would be most suspect if they applied to private blackjack games played for fun; presumably the government cannot prohibit us from using devices to make calculations in our private lives. But even in casinos, these laws limit the ways technology allows us to process information. To my knowledge, no one has challenged such laws on First Amendment grounds.

Some behaviors protected by the First Amendment remain so even when they are technologically aided. We have rights to speak in public with or without a megaphone.¹⁵⁷ The government can regulate the harmful side effects of sound amplification, but technologically-assisted speech is still speech for First Amendment purposes. Similarly, the First Amendment protects the faster and broader distribution of speech enabled by the Internet. Other behaviors, however, lose their protection when they are technologically assisted. For example, we have rights to walk down the street and overhear people's conversations so long as we use our technologically unassisted ears. But eavesdropping laws widely-viewed as constitutional prevent us from doing so "by means of any electronic, mechanical or other device."¹⁵⁸

While eavesdropping laws prohibit certain uses of technology to aid our senses, a closer analogue to card counting comes from controversy over encryption restrictions. An encryption algorithm takes

Board § 5.150 (1987). It is possible, though, that the chair of the state gaming control board has allowed exceptions not listed in the regulations. *Id.*

155 *Clark Cnty. v. Anderson*, 746 P.2d 643, 643-44 (Nev. 1987).

156 *Id.* at 644. Subsequent case law, however, leaves it unclear whether the holding of the case is still valid. *See Las Vegas v. Eighth Judicial Dist. Court ex rel. Cnty. of Clark*, 146 P.3d 240, 245 (Nev. 2006).

157 *See Kovacs v. Cooper*, 336 U.S. 77, 81-82 (1949) ("Absolute prohibition within municipal limits of all sound amplification, even though reasonably regulated in place, time and volume, is undesirable and probably unconstitutional as an unreasonable interference with normal activities.").

158 *See, e.g., Ky. Rev. Stat. Ann.* §§ 526.010-526.020 (West 1974).

certain information, processes it, and returns the information in a scrambled form that cannot be understood without a key to decode it.

If the Seventh Circuit is right that the First Amendment prohibits punishing us solely for thoughts,¹⁵⁹ then you cannot be punished merely for thinking through these complicated algorithms in your head. This is so, even if such algorithms can be used to encrypt complicated messages that cannot be deciphered by law enforcement. But assuming we have a right to mentally encrypt messages along with a right to leave the country while doing so, do we also have a constitutional right to export a device that does the same computations?

In the late 1990s, some people challenged federal laws limiting the export of “source code” (uncompiled software written by humans in a programming language) that encrypts messages.¹⁶⁰ In *Bernstein v. United States Department of Justice*, the critical question was whether export restrictions on encryption source code constituted a prior restraint on expression.¹⁶¹ The court determined that source code is indeed “expressive for First Amendment purposes, and thus is entitled to the protections of prior restraint doctrine.”¹⁶²

Interestingly, the court thought it noteworthy that source code “is meant to be read and understood by humans, and that it cannot be used to control directly the functioning of a computer.”¹⁶³ In other words, at least in the mind of this court, it seems possible that we may have a right to engage in mental calculations and encode those calculations into source code without necessarily having the right to use a computer to do the same calculations more quickly. Similarly, a First Amendment right to count cards might not entail a legal right to use devices for assistance. Sometimes technological assistance eviscerates a legal right, sometimes it does not.¹⁶⁴

159 *Doe v. City of Lafayette*, 377 F.3d 757, 765 (7th Cir. 2004) (en banc).

160 *See, e.g., Junger v. Daley*, 209 F.3d 481 (6th Cir. 2000); *Bernstein v. U.S. Dep’t of Justice*, 176 F.3d 1132, 1140 (9th Cir. 1999), *reh’g en banc granted and opinion withdrawn*, 192 F.3d 1308 (9th Cir. 1999); Robert Post, *Encryption Source Code and the First Amendment*, 15 BERKELEY TECH. L.J. 713, 714 (2000).

161 *See Bernstein*, 176 F.3d at 1138.

162 *Id.* at 1141.

163 *Id.* at 1142. In light of changes to the export regulations, however, *Bernstein* lost standing to bring his case. *See Bernstein v. U.S. Dep’t of Justice*, 192 F.3d 1308 (9th Cir. 1999); *Bernstein v. U.S. Dep’t of Commerce*, No. C 95-0582 MHP, 2004 WL 838163, at *2 (N.D. Cal. Apr. 19, 2004).

164 Perhaps we are more willing to restrict cognitive or sensory abilities when they are technologically enhanced than when they are technologically unassisted. *See generally* Adam J. Kolber, *Criminalizing Cognitive Enhancement at the Blackjack Table*, in *MEMORY AND LAW* 307 (L. Nadel & W. Sinnott-Armstrong eds., 2012).

We could decide that anti-device laws do raise First Amendment concerns but admit that the concerns are limited to a narrow sphere of life. After all, some limitations on expression are warranted. A state professional licensing exam might prohibit test-takers from consulting reference materials (clearly expressive media) and from using calculators (devices that aid with computation) for the duration of an exam. Such rules may serve important functions: we don't want licensed paramedics looking up basic reference information. The rules burden First Amendment interests but do so in such time-and-place-limited ways that, in run of the mill contexts, the rules would presumably survive whatever level of scrutiny applied.

But the interests supporting anti-device laws seem small in comparison. As noted, many casinos that permit ordinary card counting still have profitable blackjack tables—they simply alter other aspects of game play to restore the casino's overall advantage. Casinos could use such techniques if anti-device statutes were prohibited. Moreover, holding anti-device laws unconstitutional would hardly make device use welcome at the blackjack table. Casinos in Las Vegas and elsewhere already eject card counters and could continue to do so whether or not players use device assistance. So while the burdens of anti-device laws are hardly crushing, their benefits are modest as well. Some courts might be skeptical of the use of the criminal law to limit our rights to use public information when there are less burdensome ways of maintaining casino profitability.

CONCLUSION

I have focused on two views of First Amendment thought privacy. On one view, the Amendment protects thought independently; on the other, it only protects thought when intertwined with expression. While current doctrine fails to settle the matter, I argue that the First Amendment plausibly protects thought separate and apart from expression. And if thought is protected independently, then unlike every holding in free speech cases to date, the First Amendment could apply to cases that do not involve any sort of expression at all.

A related question is whether First Amendment protection of thought is automatically eviscerated when thought is punished along with particular conduct or whether the Amendment may nevertheless offer protection. Thoughts on this legal issue are necessarily speculative: many courts would be troubled by state efforts to control the way we play games like blackjack in informal settings. Even inside casinos, some courts may find the suppression of the incidental communication between dealers and players troubling, and the tradition-

al rationales for giving less protection to commercial speech do not obviously apply to card counting. A card counting prohibition would censor the ways in which people are permitted to interpret publicly available data about the world. Moreover, interests in bolstering casino profits make for a weak justification of a criminal law, especially when casinos have ample methods of coping. Efforts to frame the state's goal as trying to ensure fair profits may appear suspect given that the entire game is arranged to give casinos the upper hand, and the rules of blackjack do not ordinarily forbid card counting.¹⁶⁵

But mere qualms about criminalizing card counting are surely not enough to establish the existence of a constitutional protection. Quite plausibly, our centuries-old Constitution was never intended to block states from prohibiting card counting. If so, we may someday see efforts to create a freedom of thought amendment. Such an amendment might be especially important as neurotechnologies improve.

In one recent study, researchers looked at the brain activity of pedophiles relative to non-pedophiles when shown images of nude children. Based only on brain activity, researchers accurately classified the pedophilia status of more than 90% of subjects.¹⁶⁶ In such a world, the state may try to intervene even before people like John Doe get to a park to look at children. And while some might find that a welcome prospect, risks to thought privacy should not be ignored. About three-quarters of men and two-thirds of women admit to having homicidal fantasies.¹⁶⁷ We all, it seems, have interests in ensuring that thought privacy is properly protected.

¹⁶⁵ See, e.g., *Game Rules: Blackjack*, HOYLE, <http://www.hoylegaming.com/c-16-rules.aspx#blackjack> (last visited Feb. 27, 2016).

¹⁶⁶ Jorge Ponseti et al., *Assessment of Pedophilia Using Hemodynamic Brain Response to Sexual Stimuli*, 69 ARCH. GEN. PSYCHIATRY 187, 187 (2012). While this technique is subject to countermeasures, so are current techniques. See *id.* at 193 (stating that brain scans of pedophiles “might be less susceptible to manipulation [than phallometry] because the participant has no time to elicit prepared responses to varying stimuli in a fast, event-related fMRI setting”).

¹⁶⁷ Douglas T. Kenrick & Virgil Sheets, *Homicidal Fantasies*, 14 ETHOLOGY AND SOCIOBIOLOGY 231, 235 (1993).