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The Right to an Artificial Reality? Freedom of Thought and the Fiction of Philip K. Dick

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THE RIGHT TO AN ARTIFICIAL REALITY? FREEDOM OF THOUGHT AND THE FICTION OF PHILIP K. DICK

Marc Jonathan Blitz*

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INTRODUCTION

In *Anarchy, State, and Utopia*, the philosopher Robert Nozick describes what he calls an “Experience Machine.”¹ In essence, it produces a form of virtual reality (VR). People can use it to immerse themselves in a custom-designed dream: They have the experience of climbing a mountain, reading a book, or conversing with a friend when they are actually lying isolated in a tank with electrodes feeding perceptions into their brain. Nozick describes the Experience Machine as part of a philosophical thought experiment—one designed to show that a valuable life consists of more than mental states, like those we receive in this machine. As Nozick says, “we want to *do* certain things, and not just have the *experience of doing them*.”² An 80-year sequence of experiences generated by the machine would not be of equivalent value to the lifetime of the identical set of experiences we derive from inter-

* Alan Joseph Bennett Professor of Law, Oklahoma City University. Thanks to the organizers of, and participants in, the Science Fiction and the Law Panel at the 2021 meeting of the Association of American Law Schools: Nicholson Price, Deven Desai, Dan Breaun, Camilla Hrdy, Vickie Sutton, and John Scalzi. And thanks to Lindsay Grizzard, Averyn Lee, Erin Wall, and the editors of the *Michigan Technology Law Review* for comments on, and edits to, this essay.

1. ROBERT NOZICK, *ANARCHY, STATE AND UTOPIA* 42 (Blackwell Publishers Ltd. 1999) (1974).

2. *Id.* at 43 (emphasis added).

actions with real people (who are not illusions, but have minds of their own), and with a physical universe that lies outside of us. On the contrary, says Nozick, a solipsistic life in the Experience Machine is a deeply impoverished one.

But even if substituting the Experience Machine's fantasies for real life is not a valuable use of our time, is it something that the government should be able to regulate? The First Amendment protects our right to spend our time reading books that the government might deem meritless. It protects, as the Supreme Court noted in *Brown v. Entertainment Merchants Society*, our right to play violent video games the government believes to be a negative influence on children.³ Most courts and scholars to address the matter believe that if speech is staunchly protected, the realm of unexpressed thought and imagination deserves even stronger insulation from government interference.⁴ As Neil Richards writes, "if there is any constitutional right which is absolute," it is the freedom of thought.⁵ A government that could control our dreams, for example, would be one deeply at odds with our constitutional order. One might thus argue that however unwise it may be to let programmed dreams or other false realities swallow much of our experience, our First Amendment right to "freedom of thought," "freedom of mind," or "cognitive liberty"⁶ requires that the government stand back and let us do so. In fact, I have provided a qualified defense of this claim in past scholarship.⁷

But a closer look quickly reveals that this inquiry is not quite so straightforward: VR-generated experience may well be more worrisome when it is designed not merely as an entertaining break from reality, but as a *replacement* for it—that is, when it is designed to be perceived by someone as real. In the Experience Machine, Nozick writes, "you won't know that you're there; you'll think it's all actually happening." The First Amendment gives us a right to spend time in daydreams or fantasies.⁸ But it is less clear that it gives us a right to use VR technology to weaken or suspend our ability to distinguish fact from fiction. There are also other emerging technologies we can use to similarly alter our sense of what is real: Scholars have

3. *Brown v. Ent. Merchs. Ass'n*, 564 U.S. 786, 790 (2011).

4. *See, e.g., Jones v. Opelika*, 316 U.S. 584, 595, 618 (1942) (in which both the majority and dissenting opinions contrasted the "absolute" or "illimitable" right to think, with the necessarily more limited right to express such thoughts).

5. Neil M. Richards, *Intellectual Privacy*, 87 TEX. L. REV. 387, 408 (2008).

6. *See generally* Richard Glen Boire, *On Cognitive Liberty (Part 1)*, J. COGNITIVE LIBERTIES, Winter 1999/2000, at 7.

7. *See, e.g.,* Marc Jonathan Blitz, *Freedom of 3D Thought: The First Amendment in Virtual Reality*, 30 CARDOZO L. REV. 1141, 1148 (2008).

8. *See Paris Adult Theatre I v. Slaton*, 413 U.S. 49, 67 (1973) (stating that the "fantasies of a drug addict are his own and beyond the reach of government").

written about technology erasing memory or implanting false memories.⁹ Although we cannot currently alter the whole of our experience, today's artificial intelligence allows us to create "deepfake" variants of video and audio which show footage of events that never occurred.¹⁰

Of course, freedom of thought entails a right to believe in falsehoods. When people swear that the earth is flat or firmly believe in the fantasies of 9/11 truthers or QAnon, the government cannot constitutionally coerce them to think otherwise. As the Supreme Court said in 1969, "[o]ur whole constitutional heritage rebels at the thought of giving government the power to control men's minds."¹¹ But does it likewise rebel at the thought of giving the government power to limit how we shape our minds with Experience Machines, or other VR devices? Does it let the government restrict the technologies we might use to create and implant false memories to reinforce our false beliefs? Or, perhaps, recruit others to design "deepfake" videos that vividly—and convincingly—show us and others a world we would like to believe in?

This short essay seeks to suggest some tentative answers for these questions, drawing not primarily on the court cases or legal writings, but rather on the work of Philip K. Dick and to a lesser extent, on that of other science fiction writers. Virtual (or other artificial) reality was a central theme of science fiction even before the foundations for computer-generated virtual reality were laid in the mid-1960s. Stanley Weinbaum's 1935 story, *Pygmalion's Spectacles*, imagined a kind of glasses that would display a movie providing "sight and sound . . . taste, smell, and touch."¹² A 1964 essay by Stanislaw Lem on what he called "phantomatics" imagined a false perceptual reality that entered not through glasses, but through "ocular, olfactory, tactile, and other stimuli" fed directly to a person's brain.¹³ And for decades, Philip K. Dick made similar technologies, along with the confusion and dis-

9. See Adam J. Kolber, *Therapeutic Forgetting: The Legal and Ethical Implications of Memory Dampening*, 59 VAND. L. REV. 1561, 1562 (2006).

10. Legal scholars have only recently begun to explore the First Amendment status of deepfakes. See, e.g., Bobby Chesney & Danielle Citron, *Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security*, 107 CAL. L. REV. 1753, 1754 (2019); Marc Jonathan Blitz, *Lies, Line Drawing, and (Deep) Fake News*, 71 OKLA. L. REV. 59, 110 (2018); Rebecca Green, *Counterfeit Campaign Speech*, 70 HASTINGS L.J. 1445, 1447 (2019); Mary Anne Franks & Ari Ezra Waldman, *Sex, Lies, and Videotape: Deep Fakes and Free Speech Delusions*, 78 MD. L. REV. 892, 895 (2019); Richard L. Hasen, *Deep Fakes, Bots, and Siloed Justices: American Election Law in a "Post-Truth" World*, 64 ST. LOUIS U. L.J. 535, 542 (2020).

11. *Stanley v. Georgia*, 394 U.S. 557, 565 (1969).

12. See STANLEY GRAUMAN WEINBAUM, *PYGMALIAN'S SPECTACLES* 25 (1935) (in which the character has emotional interactions with others in a world produced by "trick photography, but stereoscopic . . . three dimensional."); Roya Bagheri, *Virtual Reality: The Real Life Consequences*, 17 U.C. DAVIS BUS. L.J. 101, 104–05 (2016) (discussing the way this story anticipated modern virtual reality).

13. PETER SWIRSKI, *A STANISLAW LEM READER* 76 (1997).

orientation they could generate, a central theme in his writings. Dick explored the tremendous value such artificial realities could provide to individuals—the sustenance, richness, and freedom they could provide to individuals trapped in barren outer-space worlds, devastated post-apocalyptic societies, and politically oppressive systems. In fact, he also suggested that some artificial realities that push aside our “actual reality” may not be artificial at all, but instead might be more real than what they replace. He also explored the havoc they could wreak on individuals when used as tools of manipulation, as failed therapeutic refuges, or when they leave individuals deeply disoriented and fundamentally confused about what is and is not real.

In this short essay, I draw on Dick’s explorations and discuss a number of reasons that the right to an artificial reality may need to be a limited one, and one governed by doctrine that not only protects an individual’s right to benefit from VR, but also her (and the larger community’s) right to benefit from certain *constraints* on VR. Such constraints might be necessary to protect individuals and the community from certain dangers that arise from artificial realities. Users might also need the constraints to assure that VR has the benefits a person or the larger community relies on it to provide.

I. SELF-DECEPTION AND THE ARGUMENT AGAINST FIRST AMENDMENT COVERAGE OF ARTIFICIAL REALITY

Consider a simple argument that we should have a First Amendment right to immerse ourselves in the virtual world of an Experience Machine even if we are deceived—when inside of it—into perceiving the experience as real. Our natural dreaming *already* deceives us in this way: Dreamers often believe that a dream is real while they are experiencing it. But that does not mean that it would be constitutionally permissible for the government to somehow restrict our dreams or prevent us from remembering them. If individuals’ freedom of thought shields them as they immerse themselves in the illusory worlds in REM sleep, why not also when they immerse themselves in a designer dream produced by an Experience Machine?¹⁴

Dreams can deceive us, but they do not usually present much competition for our waking life. Dreams are generally not remembered in detail and do not provide an environment in which a person can form the interpersonal relationships and career and other life plans that anchor, and give coherence and continuity to, our day-to-day existence. In some cases, perhaps, especially years after a vivid dream, we might struggle to remember whether certain events came from a dream or a real experience. But generally, when

14. For a more extended discussion of how First Amendment freedom of thought might apply to hypothetical government restrictions of, or intervention into, natural dreaming, see Blitz, *supra* note 7, at 1179–85.

we remember a dream after we awake, we can identify it as a dream—its bizarre and disconnected nature gives it away.¹⁵

The simulated realities in science fiction, by contrast, *do* often compete and threaten to displace our day-to-day reality. In fact, simulated realities sometimes compete heavily with actual reality. Consider the virtual realities in *The Three Stigmata of Palmer Eldritch* and *We Can Remember It For You Wholesale*, and many of Philip K. Dick's other stories. In *The Three Stigmata*, colonists on Mars use a psychedelic drug, Can-D, to "translate" themselves into figures in a dollhouse arrangement (a "layout") where the colonists feel as though they are living in a town on a mid-twentieth century Earth.¹⁶ At times, the Can-D users forget that there is a Martian world outside their drug-induced "layout" experience. One user even sends his virtual alter-ego a note to remind him that he is in a virtual experience and has limited time to enjoy it.¹⁷

The same is true in *We Can Remember It For You Wholesale*, the story on which the movie *Total Recall* was based.¹⁸ It describes a technology not for generating perception of a false present, but rather for implanting memory of a false past. The protagonist of the story, Douglas Quail, despairs of ever being able to afford a trip to Mars, and pays a company Rekal, Inc. to implant in his brain vivid memories of such a visit.¹⁹ Rekal's service memory-design service does not simply carry a risk that the customer will mistakenly treat the memory as real—it is designed to ensure he does so.²⁰ Rekal erases the customer's recollection of being at Rekal to hide the artificial process by which the implanted memory was created. It also offers to bolster Quail's belief in the reality of his trip to Mars by creating other fake evidence of the trip, including a space travel ticket, photos from the trip, souvenirs, and a record of people he met on the voyage.²¹ Quail sought not a simple private fantasy, but foolproof self-deception.²²

In each of these settings, individuals seek to place themselves firmly in the grip of an artificial hallucination. They *believe* that what they are experiencing is real. If it is relatively straightforward to extend First Amendment

15. See J. ALLEN HOBSON, *DREAMING: AN INTRODUCTION TO THE SCIENCE OF SLEEP* 63 (2002).

16. See Philip K. Dick, *The Three Stigmata of Palmer Eldritch*, in *FOUR NOVELS OF THE 1960S*, 297–325, 375–416 (Jonathan Lethem ed., 2007).

17. *Id.* at 269.

18. See Janet Maslin, *Review/Film; A Schwarzenegger Torn Between Lives on Earth and Mars*, N.Y. TIMES (June 1, 1990) (reviewing the 1990 version of the film *Total Recall*).

19. See Philip K. Dick, *We Can Remember It for You Wholesale*, in *SELECTED STORIES OF PHILIP K. DICK* 330–31 (Pantheon Books 2002) (1966).

20. *Id.* at 330.

21. *Id.*

22. None of this goes as planned in the story. But my interest is not in exploring what goes wrong for Quail—and for Rekal—but in exploring if and how freedom of thought would apply to the service that Quail was seeking.

freedom of thought to cover VR games and fantasies, it is less clear that such First Amendment freedom should cover extended hallucinations—even if individuals voluntarily enter into them.²³

Moreover, as discussed more fully below, it is not clear that the changes wrought by such virtual realities would be as temporary as those we experience in natural dreaming. One can imagine visits to an Experience Machine that are strongly insulated from our life outside of it. As soon as we leave the Machine, we understand and can discount its experiences as false, just as we can generally set aside a dream and continue our lives upon waking. However, some of the simulated realities in Dick's worlds are not so ephemeral. The memory of Mars that Douglas Quail seeks to embed in his mind (and his sense of his own past) is meant to be permanent. Some of the false towns and home lives in which individuals find themselves living in Dick's stories are not confined to a night of dreaming. They stretch across days, months, or years of a person's waking life. This kind of transformation in one's sense of reality, one might argue, lies beyond what the First Amendment protects. It is more akin to a person's receiving psychosurgery to fundamentally alter who they are than it is like reading or writing a novel or immersing oneself in a film or video game.

This deeper transformation arguably makes the use of simulated realities more like the conduct that the First Amendment does not protect than the speech it does. In offering what she calls a "thinker-based account" of the First Amendment, Professor Seana Shiffrin offers one reason that the First Amendment might protect the expression of our thought in words but not in conduct such as violent aggression:

[A]s a general matter, communicative methods of transmitting mental contents generate the possibility of an intermediate workshop-like space in which one may experiment with, advance tentatively, try on, revise, or reject a potential aspect or element of the self or of one's potential history before directly affirming it through endorsement or implementation. One cannot preface, even implicitly, one's thrown punch with "maybe," "consider the possibility," or, "for now, this is my tentative judgment," and thereby mitigate the seriousness of the assault or somehow soften the impact of one's fist.²⁴

In the cases discussed above, VR is *not* an "intermediate workshop-like space" for us to "experiment" with one's potential history. It is, as in Doug-

23. See Blitz, *supra* note 7, at 1229–33 (exploring harms VR could cause by causing individuals to confuse VR illusions with the real world).

24. SEANA VALENTINE SHIFFRIN, *SPEECH MATTERS: ON LYING, MORALITY, AND THE LAW* 114–15 (2014).

las Quail's case, a firm break what came before—a kind of self-transformation that commits one to a different course.

II. THE FIRST AMENDMENT VALUE OF ARTIFICIAL REALITY

But if the examples of artificial realities in Dick's stories provide some support for such an argument for excluding artificial realities from the ambit of the First Amendment, other examples cut the other way. Specifically, Dick's stories challenge at least two conditions implicit in Nozick's hypothetical.

The first is that we *can* do the things we enjoy doing inside the Experience Machine outside of it, and even if a real-life analogue is not quite as thrilling as its custom-designed alternative in the VR fantasy world, the analogue will still be available and it will be real. Better to confront a real athletic or intellectual challenge than an achievement brought to us courtesy of a programmed sequence of illusory experiences. Better to have frustrating conversations with imperfect friends in the real world than idyllic conversations with imaginary friends produced by a false VR experience. But what happens when what makes life most valuable is not to be found in any form in the real world? Full immersion (and perhaps, belief in) a virtual world may sometimes be the *only* source of certain rich experiences or perspectives on life that we can't obtain anywhere else. Many of Dick's stories illustrate how this can be the case.

Many of the individuals who seek out false realities do so under circumstances where false realities are arguably the *only* realities that can provide them with a sense of meaning. Nozick's insistence that "we want to *do* certain things, and not just have the *experience of doing them*," might not ring true for those who do not have the option of doing those things outside of VR.²⁵ The hallucinations produced by Can-D in *The Three Stigmata of Palmer Eldritch* are generated by space colonists trapped on an incredibly bleak martial landscape—and the richness of the earth society they wish to explore is not only millions of miles away but also decades in the past.²⁶ Other stories feature space travelers who are trapped and isolated, without human contact for decades—and for whom hallucinatory VR-generated experiences provide their only way to enjoy family life and friendship.²⁷ In one such story, space travelers are stranded in a damaged spaceship, condemned to age and die there—and the VR illusions provided by an imaginative and powerful provides them with the only way to experience different environments.²⁸ Similarly, the deceased "half-lifers" in *Ubik* have no stage for their

25. Nozick, *supra* note 1, at 43 (emphasis added).

26. See Dick, *supra* note 16.

27. See, e.g., Philip K. Dick, *I Hope I Shall Arrive Soon*, in *I HOPE I SHALL ARRIVE SOON* 456 (Mark Hurst & Paul Williams eds., 1985).

28. Philip K. Dick, *A Maze of Death*, in *VALIS & LATER NOVELS* 8–9, 163–75 (2007).

experiences apart from their own minds.²⁹ In the physical world, they are already dead and cryogenically-frozen within a mausoleum, their only contact with the outside world coming when a relative or friend comes to communicate with them at periodic intervals, which consequently use up small portions of their remaining consciousness. Between these visits, the deceased “half-lifers” can often travel in hallucinatory environments that may in part be the product of somebody else’s design.³⁰

There are also less exotic examples of people for whom virtual reality may provide the only rich external environment. In his 1964 essay imagining of virtual reality or “phantomatics” might work, Stanislaw Lem describes how it might one day restore to “paraplegics, bedridden patients, [and] convalescents” the power of movement.³¹ Even if we do not all have a right to plunge ourselves into an ongoing hallucinatory world, then, one might argue that *some* people do. This might at times be necessary for individuals to assure that they, not government officials, “control” what Friedrich Hayek describes as “the essential data [of their] individua[l] action.”³² When the “data” for any valuable action a person might experience is only to be found in a simulated world, then perhaps it should be part of the individual’s constitutionally-protected sphere.

In fact, one might argue that—at least in certain times and places—even individuals who are not in the isolation of a coma, marooned in space, or limited by severe physical disability might have a powerful need to immerse themselves in certain kinds of perceptual illusions. This is one lesson one might draw from parts of *We Can Remember it for You Wholesale*, *Now Wait for Last Year*, and *Do Androids Dream of Electric Sheep?*

Douglas Quail, the main figure in the first of these three stories, is not incapacitated or dying. But he is desperately unhappy and determined not to die without seeing Mars. He views himself as a “miserable little salaried employee,” with no hope of affording the voyage to Mars he is determined to make.³³ Unable to travel there physically, the only way he can make this experience a part of his life is with a virtual trip of sorts—namely, the artificial memory of Mars he recruits Rekal to implant.

In *Now Wait for Last Year*, a key character generates an artificial reality of sorts not to visit novel worlds but to revisit, and give vivid form to, deeply meaningful episodes of childhood. Aged executive Virgil Ackerman has gone to great expense and effort to build on Mars a true-to-life model city called “Wash-35,” which is a recreation of the 1930s Washington, D.C.

29. See Philip K. Dick, *Ubik*, in *FOUR NOVELS OF THE 1960S* 620, 788–89 (Jonathan Lethem ed., 2007).

30. *Id.* at 612–15.

31. Swirski, *supra* note 13, at 90.

32. F. A. HAYEK, *THE CONSTITUTION OF LIBERTY* 139 (1960).

33. Dick, *supra* note 19, at 328, 330–31.

from his youth.³⁴ Wash-35 is filled with replicas of the comic bookstores and theaters that were the highlights of his childhood, as well as robots (or “robants”) that look and sound exactly like the friends and adult figures he knew then. While some of Ackerman’s family and colleagues are contemptuous of his need to immerse himself in this nostalgic recreation, the protagonist, Eric Sweetscent, is more sympathetic. Sweetscent defends Ackerman when Ackerman’s nephew complains that the people represented by lifelike figures they meet in Wash-35 have, in reality, “been dead a century,” and that the nephew likes “things to appear as they really are.” He stresses (to the nephew and to himself) that Ackerman’s attempt to preserve 1930s Washington is not any stranger or more worthy of condemnation than preserving a long-ago concert performance in an audio recording. “We live with illusion daily,” he goes on to reflect, “When the first bard rattled off the first epic of a sometime battle, illusion entered our lives; the *Iliad* is as much a ‘fake’ as those robant children trading postage stamps on the porch of the building [in Wash-35].”³⁵ Reconstructed realities then can serve crucial aspirations and emotional needs even for those many individuals who—unlike stranded space voyagers, dead-but-still-sentient “half-lifers,” and individuals confined by illness—are capable of moving through, and interacting with, their physical environments.

To be sure, Ackerman’s reconstructed childhood haunts in Wash-35 are not designed to crowd out his current reality. At the same time Ackerman is enjoying his trip down memory lane he is able to deal with the business and political demands of the present.³⁶ But one finds a stronger defense of even deceptive false perceptions in *Do Androids Dream of Electric Sheep?* (the basis for the movie, *Blade Runner*). In the novel, characters in a post-apocalyptic America maintain their capacity for empathy with others in part by practicing a religion called “Mercerism.” One ritual they practice in this religion involves entering a VR-type experience through something called a “fusion box.” While using the box, they experience the world from the perspective of a savior figure, Wilbur Mercer—and they are not there alone, but are sharing this experience with numerous others who have also “fused” into it from wherever they are, using their own fusion boxes. Mentally joined with the virtual Mercer, the participants feel Mercer’s pain as he is perpetually pelted with stones while he climbs an endless hill. Mercer is not simply a virtual character, however. His adherents have learned that he was a real person who had been persecuted by authorities after manifesting a power to resurrect the dead. Near the end of Dick’s tale, the biography of this savior is revealed to be a hoax: The man who appears as Mercer was

34. Philip K. Dick, *Now Wait for Last Year*, in *FIVE NOVELS OF THE 1960S & 70S*, 481–84 (Jonathan Lethem ed., 2008).

35. *Id.* at 483–84.

36. *Id.* at 491, 510.

actually an obscure character actor paid to create the films on a sound stage. The virtual Mercer then acknowledges his fraudulent origin to shaken followers but insists that he remains real to those who fuse with him. The story's protagonist, Rick Deckard, seems to adhere to this view, stating near the end of the story that "Mercer isn't a fake . . . [u]nless reality is a fake," and that after fusing, he "can't stop being Mercer."³⁷

One complication in drawing lessons from these stories is that the virtual world of the stories is not clearly artificial in the same sense as that of VR worlds, or that of the Experience Machine. Mercer is not solely a hallucination. In some respects, he seems sentient and able to shape the reality that exists outside the "fusion" experience. However, Dick's stories can at least prompt reflection on the challenges that VR and other technologies for generating artificial reality pose for First Amendment rights—not only to freedom of thought but also freedom of speech and religious liberty. Is the value that individuals can find in artificial realities value that the First Amendment protects?

Consider first the right to freedom of speech. Virtual reality and other emerging technologies such as "deepfake" videos now allow us to make the unreal seem increasingly vivid and real.³⁸ To what extent can individuals take advantage of such technologies to design—and believe in—their own realities? The Supreme Court held in *United States v. Alvarez* that individuals have a First Amendment right to tell autobiographical lies. Congress cannot punish individuals who falsely claim to have won military awards, as it did when it enacted the Stolen Valor Act (which the Court struck down in *Alvarez*).³⁹ But that leaves open questions about whether and how *Alvarez* extends to emerging technologies. Are individuals protected by the First Amendment not only as they immerse themselves in false autobiographies, but also—like Douglas Quail—use VR to make these autobiographies seem real? Are they constitutionally protected when they coax friends or others to join them in these high-tech illusions?

One might also ask whether such sculpting of our encounters with reality might be protected by the First Amendment's right to the free exercise of one's religion. Many of the simulated realities in Dick's stories have a religious function. Mercerism in *Do Androids Dream of Electric Sheep* has a "theological and moral structure," while the colonists who use Can-D in *The Three Stigmata of Palmer Eldritch* similarly think about this practice in religious terms: Those who believe the dollhouse layout can never be anything more than a toy-like model of Earth are viewed as "unbelievers" by

37. Philip K. Dick, *Do Androids Dream of Electric Sheep?*, in *FOUR NOVELS OF THE 1960s* 448–51, 583, 587, 601 (Jonathan Lethem ed., 2007).

38. See Chesney & Citron, *supra* note 10, at 1757 (2019).

39. *United States v. Alvarez*, 567 U.S. 709, 709 (2012).

the faithful.⁴⁰ Some of the space travelers' virtual reality experiences in *A Maze of Death* are likewise woven around invented religions.⁴¹

How might our existing legal framework for religious liberty apply to such simulated realities? Although the Constitution has not prevented the government from extending a "neutral law of general applicability" to religious practices that use psychoactive substances,⁴² the Religious Freedom Restoration Act has barred the federal government from subjecting such drug use to incidental burdens unless it can satisfy strict scrutiny.⁴³ Is there a constitutional right to proselytize not merely with arguments, but by creating perceptual experiences, memories, or feelings that bolster the religious beliefs? Do individuals have a First Amendment right to be an audience for such virtual-reality aided proselytizing? Or is it also the case that government has a responsibility to protect individuals against being influenced by it in ways that might be manipulative or deceptive?

As is the case for freedom of speech, one important question is whether the balance between an individual's right to immerse herself in an artificial reality and the government's need to protect her from the dangers of VR might be struck differently in different environments. One assumption courts and legal thinkers often make in cases on free speech and religious liberty is that individuals must be left free to compare different belief systems in a "marketplace of ideas," or free to radically revise their religious beliefs. That freedom may well be diminished when individuals lock themselves into a simulated reality that is specifically designed to affirm only one such belief system.

Dick's stories prompt the question of whether, in certain very different social or physical conditions, individuals might not only need to enter (and, at least briefly believe in) simulated realities—but also need that simulation to support certain habits of thinking. It is not clear, for example, how well those who live in Rick Deckard's post-apocalyptic world can derive value from the "fusion" they experience if it is not delivered with experiences that affirm Mercerism's beliefs and commitments.

III. ARTIFICIAL REALITY AS AN ENHANCEMENT OF BRAIN-GENERATED REALITY

Philip K. Dick's stories also raise another challenge to wholly excluding the artificial hallucinations of the Experience Machine from the First Amendment's scope. Not only are these hallucinations to some extent like natural dreaming, they are also in some respects like the natural processing

40. Dick, *supra* note 37, at 441; Dick, *supra* note 16, at 263.

41. Dick, *supra* note 28, at 8, 163.

42. *Employment Div. v. Smith*, 494 U.S. 872, 879 (1990).

43. *See Holt v. Hobbs*, 574 U.S. 352, 356–57 (2015) (noting that the Religious Freedom Restoration Act imposes strict scrutiny on federal laws that incidentally burden religion).

the brain does in our waking life. As I wrote earlier, Nozick draws a stark contrast between experiencing something in one's mind and doing it in the outside world.⁴⁴ Many science fiction stories about virtual reality seem to emphasize a similar dichotomy. In the *Matrix*, for example, Neo and Morpheus lead a group that wishes to free humans from being imprisoned in a computer-generated virtual reality.⁴⁵ In *eXistenZ*, "realist" terrorists seek to attack, and destroy the products of biotech companies that allow people to enter intricate virtual reality games.⁴⁶

But in Dick's stories, the line between simulation and external reality is often a blurry one. The blurriness is rooted in part in Dick's doubts about whether hallucinations or other illusory experiences might be just as, if not more, real than our normal day-to-day experiences. In one essay, for example, he wrote that "plural realities" might "exist superimposed onto one another like so many film transparencies," and that some experiences that seem like hallucinations that tear us away from a single external reality, are simply shifting us into a different one.⁴⁷ Intrigued by gnostic and Neoplatonist thinking positing that one could find a more authentic reality outside the material world, he suggested that the reality we perceive most of our waking life is a "spurious" one, with an "authentic . . . normally undetected substratum of reality" lying underneath.⁴⁸ It is highly unlikely (to say the least) that courts and legal thinkers would build First Amendment law around the possibility that our day-to-day experience could be an illusion.

But there is a more modest challenge to this distinction one can draw from Dick's stories. Even if hallucinations aren't visions of worlds underlying or existing beside our own, they are arguably sometimes a variation on familiar, inevitable, and valuable components of human life.

As one of Dick's characters says in *Now Wait For Last Year*, the vivid recreation of 1935 Washington in Wash-35 shouldn't strike us as all that novel or frightening when we have "live[d] with illusion daily" since the *Iliad*.⁴⁹

And one might argue that the technology for generating illusions within the brain goes back even further because the capacity to weave together a synthetic reality is built into the brain's biology itself. Our mind does not simply passively absorb and convey an external reality—it actively shapes

44. Nozick, *supra* note 1, at 43.

45. THE MATRIX (Warner Bros. 1999).

46. EXISTENZ (Alliance Atlantis Communications 1999).

47. Philip K. Dick, *If You Find This World Bad*, in THE SHIFTING REALITIES OF PHILIP K. DICK: SELECTED LITERARY AND PHILOSOPHICAL WRITINGS 240 (Lawrence Sutin ed., 1995).

48. Philip K. Dick, *Cosmogony and Cosmology*, in THE SHIFTING REALITIES OF PHILIP K. DICK: SELECTED LITERARY AND PHILOSOPHICAL WRITINGS 287 (Lawrence Sutin ed., 1995).

49. Dick, *supra* note 34, at 481–84.

our experience of it.⁵⁰ Thus, rather than seeing VR as a radical break with the way we normally experience reality, we might see it as another tool to let us sculpt, a little more deliberately, experiences that are already in large part the product of how brains construct our perceptions and memories (and reconstruct the latter).

Such a consideration has already played a role in debates over memory-dampening drugs. In response to the critique of memory-dampening in the 2003 report of President Bush's President's Council on Bioethics, Professor Adam Kolber has argued that individuals should often have the freedom to chemically-erase their traumatic memories with propranolol or other new drugs.⁵¹ In one part of his argument, he notes that memory erasure is not simply an artificial process because the brain already fails to preserve many memories and reshapes others. If it would be wrong to force individuals to take measures that preserve memories they do not wish to preserve (from natural forgetting), Kolber observes, then in at least some circumstances it might likewise be wrong to bar individuals from using *artificial* means of forgetting to lose the same memories.⁵²

The question I focus on here is different: Do we have a right to *add* false memories instead of erasing those we have formed on the basis of observations? One might argue that what an individual is doing with an implanted memory (like that in *We Can Build You Your Dreams Wholesale*) is simply an artificial variant of something that already occurs naturally.⁵³ Our natural memory might mistakenly merge two separate events into one, wrongly placing a friend or family member in an encounter they never participated in, or misclassifying a dream as an actual event.⁵⁴ To what extent then can we claim that, if such mistakes of memory are going to happen anyway, we should have a right to shape how they happen?⁵⁵ Indeed, one of the unusual guarantees that Rekal gives to Douglas Quail in the story is that the Mars voyage memory they plant will be superior to natural memory, "with all its vagueness, omissions, and ellipses, not to say distortions."⁵⁶ It will be an artificial memory with such "deep implantation of recall that nothing is forgotten."⁵⁷ Therefore, one question we may ask in addressing whether technologically-enabled reality distortion should receive any constitutional protection is to what extent such technology-enabled reality dis-

50. See, e.g., Jane Campbell Moriarty, *Visions of Deception: Neuroimages and the Search for Truth*, 42 AKRON L. REV. 739–60 (2009).

51. See generally Kolber, *supra* note 9.

52. *Id.* at 1610–11.

53. Dick, *supra* note 19, at 331.

54. See generally ELIZABETH LOFTUS & KATHERINE KETCHUM, *THE MYTH OF REPPRESSED MEMORY: FALSE MEMORIES AND ALLEGATIONS OF SEXUAL ABUSE* (1994).

55. *Id.*

56. Dick, *supra* note 19, at 331–32.

57. *Id.* at 331.

ortion is different from the natural reality distortion our mind already creates.

IV. THE HARMS TO ONESELF AND OTHERS: UNDERMINING OBLIGATIONS AND ENABLING MANIPULATION

The previous sections asked whether using an Experience Machine can be an exercise of freedom of thought even though we do not experience it as mere thinking and are rather deceived into believing it was a real experience. But even if such self-deception does not automatically rule out or require substantial limits on First Amendment protection, we should also ask if some of the harms that flow from it might.

One such harm is akin to those Nozick focuses on in his Experience Machine hypothetical: The loss that comes with being disconnected from real people and real activities. This point has also been central to some recent critiques of cognition-enhancement and memory-alteration. As noted earlier, the 2003 Report of the President's Council on Bioethics warns against responding to unpleasant memories or emotions by simply dulling them, and urges us to avoid a future where individuals chemically banish negative experiences and emotions instead of dealing with them.⁵⁸ And Dick highlights this worry by imagining how a futuristic device, the Penfield Mood Organ, might let people alter their emotions (including anger at, or affection toward, others) with the twist of a dial.⁵⁹

Other science fiction writers have explored concerns over how virtual realities might feed a hunger for sexually explicit or violent material. Science fiction writers have long raised alarm about the possibility that VR might normalize violence by making it a more familiar part of life. In his 1964 essay, for example, Stanislaw Lem warned that VR will allow human beings to conjure "frenzies of nihilistic obscenities . . . limited only by imagination."⁶⁰ James Gunn's 1961 book, *The Joy Makers*, describes a dystopian world where people relentlessly maximize pleasure by seeking out programmed psychological experiences.⁶¹ Dick also describes similar possible uses of VR in his fiction, and the oddity of libertarian stance on VR leaving people with unlimited freedom to perform acts that, in any other context, would be morally repulsive and subject to legal constraint. In *The Three Stigmata of Palmer Eldritch*, he notes that people can use the drug-powered VR in that world to "commit incest, murder, anything" and it would, due to

58. See PRESIDENT'S COUNCIL ON BIOETHICS, BEYOND THERAPY: BIOTECHNOLOGY AND THE PURSUIT OF HAPPINESS 207 (2003). See also RICHARD RESTAK, THE NEW BRAIN: HOW THE MODERN AGE IS REWIRING YOUR MIND 138 (2003) (describing requests by patients for drugs to dampen grief after the death of a relative).

59. Dick, *supra* note 37, at 435–38.

60. Swirski, *supra* note 13, at 87.

61. See generally JAMES GUNN, THE JOY MAKERS (Wilder Publi'ns 2010) (1961).

its virtual nature, “remain[n] from a juridical standpoint a mere fantasy” insulated against state restriction.⁶²

However, it is unlikely that such worries would provide a basis for suspending any First Amendment protection that VR experiences might otherwise receive. As a general matter, the First Amendment does not allow the government to restrict speech on the basis of the paternalistic justification that it has to steer people away from unworthwhile activity. The courts made this clear in rejecting California’s ban on violent video games. The Ninth Circuit stressed that while the government might be allowed to regulate video games it could show caused neurological harm, the government is not permitted to regulate video games for the purpose of controlling video game players’ thoughts or mental experiences.⁶³ It is conceivable that violent experiences in an immersive 3D experience will have less First Amendment protections than similar experiences in two-dimensional movies. As Eugene Volokh and Mark Lemley point out, “[w]e base many [legal] rules on the distinction between the mental and the visceral, between things we perceive and things we experience” and the violence we encounter in an Experience Machine would, of course, seem more real than that on a movie screen.⁶⁴ It is designed to be *experienced*, not just seen or perceived.

I will focus the remainder of the Article on two potential harms that are most likely to give courts pause in extending First Amendment rights to VR: societal obligations and manipulation.

A. *Societal Obligations*

Even when people willingly choose to enter a false reality of their own design, implant a false memory in their head, or erase a memory of events they have actually experienced, such actions can cause harm. In the conceptual language of John Stuart Mill’s framework in *On Liberty*, even our solipsistic fantasy life in the Experience Machine is not always an experience that concerns only the Machine-user herself.⁶⁵ If we continue to view events we see and hear in the Experience Machine even after we emerge from it— if we continue to have a false memory we have implanted or, from that

62. Dick, *supra* note 16, at 268. See also Blitz, *supra* note 7, at 1146–47 (describing how VR could “make reprehensible violence seem normal, familiar and acceptable”). Justice Alito’s concurrence in *Brown v. Entertainment Merchants Society* also worries that “it will not be long before video-game images will be seen in three dimensions . . . provide sensory feedback” and thus allow users to experience extreme violence rather than simply watch it. *Brown v. Entm’t Merchants Ass’n*, 564 U.S. 786, 816–17 (2011) (Alito, J., concurring).

63. See *Video Software Deals Ass’n v. Schwarzenegger*, 556 F.3d 950, 962 (2009).

64. Mark A. Lemley & Eugene Volokh, *Law, Virtual Reality, and Augmented Reality*, 166 U. PA. L. REV. 1051, 1056 (2018).

65. See John Stuart Mill, *On Liberty*, in *ON LIBERTY IN FOCUS* 30 (John Gray & G.W. Smith eds., 1991).

point on, lack a memory we have erased—then this will affect our interactions with other people and our ability to fulfill our obligations to society.

This raises interesting questions of law and policy: Can users or designers of VR experiences or memory manipulations be liable for defamation (or another tort) if a user intentionally deceives themselves into thinking that another person is responsible for a wrong which that person did not commit? Imagine, for example, that we seek to assuage our guilt over past mistreatment of a friend or family member by implanting a false memory proving that they are responsible for wrongdoing that deserves that mistreatment.

False memories and fabricated experiences raise additional problems when they interfere with duties that we owe to society. Consider what artificial memory—or erasure of memory—might mean for the right of the judicial system to “every man’s evidence.”⁶⁶ Trials cannot deliver justice unless they can obtain reliable evidence about the events underlying a criminal or civil trial—and this often requires testimony from witnesses. When we serve as a witness in a trial, we need to have accurate memories—not simply for our own benefit, but for the benefit of society.

For this reason, even as he presents a vigorous argument in favor of what he calls “freedom of memory,” Kolber argues that we cannot have an unlimited right to dampen or erase any memory we find unpleasant: Our memories are “not entirely our own.” A witness to a crime may have an obligation to accurately remember that crime and share her memory with a jury.⁶⁷ Of course, witness memories are imperfect and inevitably often inaccurate; however, that does not mean that individuals can *intentionally* use technology to erase, weaken or distort their memories of events at issue in a trial. In short, no person’s mind is an island, even in a world of Experience Machines and technology for sculpting one’s own memory.⁶⁸ Dick’s stories explore how memory manipulation may be used to intentionally undercut law enforcement investigations, trials, or attempts by citizens to understand their government. Even police investigators equipped with telepathic capacities (like those in *The Gameplayers of Titan*) sometimes find their investigations hampered by methodical memory-erasing that has occurred to hide evidence of the crime.⁶⁹

66. See *United States v. Nixon*, 418 U.S. 683, 709 (1974) (stating that the “the public . . . has a right to every man’s evidence.”).

67. See Adam Kolber, *Freedom of Memory Today*, 2008 *NEUROETHICS* 145–48 (2008); see also Kolber, *supra* note 9, at 1589–92 (discussing how erasing memories could constitute obstruction of justice).

68. See John Donne, *No Man Is an Island*, GEOFF JOHNSTON: MY FAVOURITE POETRY, <https://web.cs.dal.ca/~johnston/poetry/island.html> (last visited Apr. 11, 2021).

69. See PHILIP K. DICK, *THE GAME-PLAYERS OF TITAN* 63–75 (Gregg Press 1979) (1963).

It is not only in trials that we rely on individuals to remain anchored in a shared reality. Many writers who lament modern-day disinformation campaigns on social media have been stressing the extent to which a well-functioning democracy depends on citizens living in the same reality. In a 2016 piece, for example, one writer stresses that “[public] knowledge, composed of facts and an understanding of their limits, are critical for a functioning democracy,” and that democracy relies on citizens having a “shared reality.”⁷⁰ As Jonathan Rauch observes, given that in free societies the state does not ordain what is true and false, democracy depends on a decentralized system for the “constitution of knowledge.” This system, he writes, relies on certain norms that he calls an “an epistemic honor code: Objective truth exists; efforts to find it should be impersonal; credentials matter; what hasn’t been tested isn’t knowledge; and so on.”⁷¹ Disinformation campaigns on social media can severely undermine such norms—and undermine the public deliberation on which democracy relies by “spreading lies and disinformation on an industrial scale, they sow confusion about what might or might not be true, and about who can be relied on to discern the difference, and about whether there is any difference.”⁷²

One might think, given the amount of disinformation that has already spread on social media, that emerging technologies of memory manipulation, “deepfake” videos, and other fabricated realities will make little difference here. However, one of the threats of the latter technologies is that they can conceivably detach a person from a democracy’s shared reality even if they do generally adhere to Rauch’s epistemic honor code. A person who rejects disinformation because it is clearly at odds with the reality they see (in their own observations, video evidence, or experts they trust), won’t be able to filter out such false information when their perceptions are themselves contaminated by falsehood, where even the best video evidence can be fake, or where the trusted expert who assured them of a fact wasn’t the real person, but a facsimile in an Experience Machine fantasy or a false memory.

With such considerations in mind, Philip K. Dick’s simulated realities seem worrisome in another way. Many of the hallucinations Dick imagines are intersubjective. One of the safeguards confusing a dream with reality is that the dream is private and personal. Nobody else in our physical environment has been privy to our dream sequence and no one will regard it as real. By contrast, the illusions of Dick’s stories are often communal, such as small towns where most or all of the town’s residents perceive a world that

70. Adam Frank, *Politics and Fracturing of Shared Reality*, NPR (Apr. 12, 2016), <https://www.npr.org/sections/13.7/2016/04/12/473850478/politics-and-the-fracturing-of-shared-reality>.

71. Jonathan Rauch, *The Constitution of Knowledge*, 45 NAT’L AFFS. (Fall 2020), <https://www.nationalaffairs.com/publications/detail/the-constitution-of-knowledge>.

72. *Id.*

isn't really there.⁷³ Or simulated worlds where multiple VR users are given extensive knowledge of a false history and a deep sense of familiarity with (and reliance on) fictional religious and cultural frameworks generated by the VR world. In one story, *The Unteleported Man*, anxious authorities nervously monitor the hallucinatory worlds generated in certain individuals' minds for any signs that they might extend beyond that individual's private mental universe. Such a world, the protagonist is informed, "wouldn't just be real . . . in the experiential sense . . . if one of the experiences is common to more than a single individual the implications are quite great . . . It would be coming true" and potentially "[r]eplacing" the reality they inhabit.⁷⁴

This is somewhat counterintuitive. The intersubjective nature of an artificial reality makes it far more valuable than the solipsism of the Experience Machine. Rather than being entirely alone with one's illusions, one retains in such simulations the contact with others and with community that is lacking in a virtual experience where everyone except the subject is a phantasm. On the other hand, the collective nature of a shared hallucination can make it seem more real. If, as Dick quotes himself as saying in *VALIS*, reality might be defined as "that which when you stop believing in it, it doesn't go away," then others' affirmation of a belief provides reassurance that it doesn't depend solely on one's continued belief in it.⁷⁵

In this sense, communal participation in a false reality can make it a high-tech equivalent of "filter bubbles" on the Internet. Users of Facebook, Twitter, and other social media sites often gravitate first and foremost towards sources of information they agree with, and then rely heavily (sometimes exclusively) on those sites to inform them about public life. What they come to view as the truth is thus ideologically filtered by their choice of venues. As one writer says, "[c]ommunities share and create social realities" and "[i]n its current role, social media risks abetting a social reality where differing groups could disagree not only about what to do, but about what reality is."⁷⁶ Moreover, adherents of implausible conspiracy theories might be more likely, thanks to Internet and social media, to find others who agree with them and bolster their beliefs in these conspiracy theories.

This problem may present an even greater threat to a democratic republic in a world where individuals not only rely on internet filter bubbles for false verbal reports, but also on reality fabrication services to provide a preferred experience of reality. To the extent that "fusion boxes" of Rick Deck-

73. PHILIP K. DICK, *THE COSMIC PUPPETS* 1–6, 12, 54–55 (First Mariner Books 2012) (1957).

74. PHILIP K. DICK, *THE UNTELEPORTED MAN* 127–28 (Berkeley Books 1983) (1966).

75. Philip K. Dick, *VALIS*, in *VALIS & LATER NOVELS* 240 (Jonathan Lethem ed., 2009).

76. Gordon Hull, *Why Social Media May Not Be So Good for Democracy*, *CONVERSATION* (Nov. 5, 2017), <https://theconversation.com/why-social-media-may-not-be-so-good-for-democracy-86285>.

ard's world are used not to instill empathy, but to help give firm rooting to communal falsehoods, they might be far more worrisome than a single person's temporary stay in an Experience Machine. Indeed, other stories by Dick imagine the harm such communal falsehoods can do. Often, it is an authoritarian government or malevolent corporation that is responsible. The authoritarian society of *The Galactic Pot Healer* imposes "mandatory dreaming" on all its citizens, using scripts to instill patriotic sentiments.⁷⁷ In *The Unteleported Man*, residents of Earth are bombarded with fake video feeds to induce them to immigrate—through a teleportation device that only works one way—to a seemingly idyllic outer space colony (from which no one has ever returned).⁷⁸

B. Manipulation

Another obviously problematic use of artificial realities is as a tool of manipulation. It may, perhaps, be an exercise of freedom of thought for us to use an Experience Machine to live a false life that we have designed *for ourselves*. By contrast, it seems a deep violation of that mental freedom when we are condemned to live in a universe over which someone else exercises God-like control. That is certainly the case when the external shaper of our mental experience is the government; however, it is also true when the God-like manipulator of our world is a private individual or company. This situation is a common scenario in Dick's stories. In *Ubik*, for example, the protagonist, Joe Chip, realizes that he and his colleagues are being pursued by a seemingly supernatural force that seems intent on eliminating them one-by-one, and toying with their perceptions as it does so.⁷⁹ However, this God-like force is revealed to be no more of a deity than the other characters. In *The Three Stigmata of Palmer Eldritch*, users of the new and powerful hallucinogenic, Chew-Z, find that the industrialist and businessman who is promoting the drug after his return from Proxima Centauri (Palmer Eldritch) is not only pushing the drug—but seems to appear in and control the hallucinogenic sequences the drug generates, often with frightening consequences for the user.⁸⁰

To be sure, one might argue that these examples are a bit of a digression from the focus of the essay—which is whether we have a First Amendment right to *voluntarily* immerse ourselves in an artificial reality, not on whether others have a right to trap and torment us there. However, that does not mean that worries about VR-enabled manipulation are irrelevant here.

First, even when entry into a VR world or other artificial reality is voluntary, the risk of manipulation is still likely to be in the background. More

77. PHILIP K. DICK, *THE GALACTIC POT-HEALER* 20–22 (Mariner Books 2013) (1969).

78. Dick, *supra* note 74, at 11–12.

79. See Dick, *supra* note 29, at 771.

80. See Dick, *supra* note 16, at 301.

specifically, assuring that individuals are free from such a risk may be difficult in any setting where the person who experiences the VR world is different from the person who designs it. A VR user who experiences the VR environment as real will not understand they have the power to pause the experience—and ask for it to be redesigned or altered. People do not, after all, typically feel we can hit a pause button when we are dissatisfied with day-to-day life in physical reality. So it is not clear how this would occur when a VR world or memory designed for us is ill-fitting (even if unintentionally so).

The dangers of even *benevolent* manipulation by an AI-entity or human-aid giver are also highlighted in some of Dick's stories. In *The Man Who Japed*, Dick explores how virtual reality technology might be used in futuristic psychotherapy: A therapist uses a kind of memory-retrieval and display system to review the memory of his patient.⁸¹ Things take an even stranger turn when the patient, after losing consciousness in his therapist's office, wakes up with a new identity, wife, child, and unfamiliar home in the Chicago of another era—a shift in reality that is meant to help the patient, but does more harm than good. In *I Hope I Shall Arrive Soon*, an artificially intelligent spaceship strives to aid a space traveler erroneously awakened from a faulty cryonic suspension by replaying his own pleasant memories for the remaining ten years of his voyage. But the spaceship soon finds that it is complex and perilous identifying what counts as “pleasant” in a complex, interconnected web of memories and repressed emotions.⁸²

Shielding individuals from virtual manipulation might also become more challenging if individuals continue to shift many activities they have traditionally carried out in the physical world into analogous virtual settings. When consumer activity occurs in virtual shopping malls, for example, questions arise about whether a virtual reality product or service might illegally mislead consumers about the non-virtual product or service it is advertising.⁸³ However, if this virtual interface for examining a product is the only medium available for doing so, then *somebody* other than the consumer (whether it is a human or AI entity) will have to design and control the user's experience—with the risk that they steer that user in ways that are unethical or harmful. Similarly, if other activities—conferences with colleagues, travel with friends and family, or outings to concerts and theater performances—likewise occur in some virtual reality experiences, there will

81. See PHILIP K. DICK, *THE MAN WHO JAPED* 55–69, 89–104 (First Mariner 2012) (1956). The therapist's apparent ability to view the content of the patient's memory is not unlike that which the characters in Harry Potter have to explore each other's memories with pensive devices.

82. Dick, *supra* note 27, at 459–62.

83. See Yusef Al-Jarani, *All Fun and (Mind) Games? Protecting Consumers from the Manipulative Harms of Interactive Virtual Reality*, 2019 U. ILL. J.L. TECH. & POL'Y 299, 310 (2019).

be a risk of manipulation or distortion, which the government has an interest in regulating and preventing. The First Amendment's free speech protection shouldn't disable government from preventing such manipulation.⁸⁴

CONCLUSION

We can draw some tentative conclusions from these reflections on whether we have the right to immerse ourselves in a false reality. It is often impossible to provide detailed answers to questions about what constitutional or other legal rules should govern science fiction VR technologies until we get a clearer sense of how such technology will work when it becomes scientific fact. The doctrines that evolve around particular constitutional rights will often depend on social conventions and technological architecture that constrain the exercise of such rights, and this is as true for the right to freedom of thought as it is for other rights.

We might, however, at least offer modest starting points, drawing on the reflections of Philip K. Dick and other science fiction writers. On the one hand, some uses of the Experience Machine to live in an artificial present, or of memory modification to generate an artificial past, seem to fall squarely within the realm of freedom of thought. This possibility is certainly true of a VR world that allows one to have an experience without having to believe in its veracity; however, even when a virtual world appears real, that does not automatically mean it should be outside the First Amendment's scope. Some of what we might do with VR is only an updated version of what our brain does naturally (as it shapes our memory and experience), and of what human culture has done in other ways to let us "live with illusion daily."⁸⁵ Some of this shaping of experience is not only familiar—it is a necessary part of helping individuals meet deeply-felt needs to preserve a comforting past or survive an oppressive present.

On the other hand, even if Experience Machine-like transformations have value in our lives—including First Amendment value—that does not mean that society will never have a claim to guard against the harms they might cause. If Dick's stories emphasize how artificial realities might enrich and sustain life, they also illustrate how they can lead to nightmarish disorientation or subjugation. Where a VR world does not supplement, or provide a resource for, our lives in real communities and in attacking genuine prob-

84. It already leaves government with leeway to protect individuals from deception that would cause financial harm—for example, by allowing government to compel advertisers to disclose "factual and uncontroversial" information where the lack of such information would cause consumer deception—*see Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626, 651 (1985)—and where commercial advertising is otherwise misleading.

85. Dick, *supra* note 34, at 484. For commercial speech to come within the First Amendment, it at least must concern lawful activity and not be misleading. *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n*, 447 U.S. 557, 563 (1980).

lems, but rather crowds it out, the government should be left with room for protecting us from being swallowed whole by such an artificial world. It might also ensure that what we do to ourselves does not undercut the obligations we have to the justice system and to others. Where a VR world does not enhance our freedom of thought, but rather puts our mental experience under someone else's control, First Amendment interests might not only allow the government to defend individual autonomy—it might require it.