

Brain Privacy and the Case of Cannibal Cop

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Introduction

Recent developments in neuroscience and brain imaging technology have raised the question of whether there is a right to brain privacy and what the scope of such a right might be. Some neuroscientists have claimed they could use brain fMRIs to reconstruct the images in an individual's mind, including imagined or dreamed [180] faces (Cowen et al. 2014). If the technology has the capacity to reveal 'the neural correlates of our innermost thoughts' (Farah and Wolpe 2004, p. 38), its use would raise some novel issues: for example, to retrieve memories from the brain would police need a warrant?(Farahany 2012a, pp. 379-80; see also Gazzaniga 2005, p. 116) I want to formulate the question of whether there is a right to brain privacy in a way that helps us think about the implications of new developments in neuroscience but also of conventional means of uncovering the thoughts, images, and memories that individuals may want to carefully guard. Drawing on a conception of privacy as the ability to control who has access to information about oneself, my question is: Do we have a right to control who has access to our inner thoughts even if those thoughts may indicate that we pose a threat to society?

To help think about the abstract concept of brain privacy I focus on an example in which the privacy of inner thoughts could conflict with other important societal interests. The example draws on an actual case involving Gilberto Valle, who was a police officer in New York. In 2012, after his wife became pregnant, he spent more and more time on the Internet. His wife became concerned, and while searching their shared laptop she found some suspicious image files. She then installed spyware on the computer to learn more about her husband's online activities. She discovered that her husband frequented websites devoted to grim fetishes, and engaged in online chats with strangers about kidnaping, raping, torturing, murdering, and cannibalizing women he knew. She found one online chat in which he discussed butchering her. Overwhelmed by this glimpse into the dark recesses of her husband's mind, and feeling threatened, she took her infant daughter and left their apartment, called the FBI, and invited them to search the apartment and laptop. Further investigation revealed that Valle had chatted with 24 people, 3 of whom were regarded by one FBI agent as real co-conspirators as opposed to individuals merely playing out their fantasies. Some communications were discovered in which money was offered in exchange for kidnaping a particular person on a particular date, and methods of abduction were discussed, such as using chloroform to disable a woman, and using a pulley apparatus in a soundproof basement to string up a victim. Agents discovered that Valle had contacted and had lunch with a female acquaintance he had expressed interest in abducting, though Valle's wife and infant daughter were also at the lunch. Based on this and related evidence, Valle was arrested for conspiracy to commit kidnaping. He claimed that none of his chats about abducting, torturing and eating women were serious. It was all fantasy. In 2013 he was convicted by a jury of conspiracy to commit kidnapping and of conducting an unauthorized search of a federal database he had used to look up information about one of his alleged targets. In 2014, a district court judge dismissed the conspiracy conviction on the ground that a rational jury could not find that Valle had a crystallized intent or entered a genuine agreement to kidnap.² In 2015, the 2nd Circuit Court of

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² U.S. v. Valle, 301 F.R.D. 53 (2014); for newspaper accounts see Goldstein 2012, and Weiser 2013.

Appeals affirmed the acquittal, and reversed Valle's conviction for unauthorized access of a federal database.³

[181] My question, as applied to this case, is whether Valle has a right to brain privacy, understood as a right to control access to his inner thoughts. Of course Valle's inner thoughts were exposed not by searching his brain but because he had shared those thoughts with a few individuals in chatroom sessions that his wife was able to access. (Whether that defeats a claim that he could reasonably expect privacy in those thoughts is a question I consider below.) So it will be helpful in considering brain privacy to abstract from the actual circumstances of Valle's case and consider the following hypothetical: Suppose Valle had never shared his deviant thoughts with anyone, but we had the ability to subject people in positions of trust to mandatory brain scans. To check for social deviancies, we could show Valle images of women being tortured and cannibalized, and determine from the scan whether he took pleasure in those images.⁴ One might imagine future technology that would allow the scan to be taken without Valle's knowledge or consent, and that could expose prior fantasies, intentions, or other inner thoughts. Would society's interest in public safety justify subjecting him to such scans and to the potential punishment both legal and non-legal (in the form of reputational and dignitary harms) that he could face as a result, or does Valle have a right to brain privacy that would prohibit such searches? My aim is not to provide a definitive answer to this question, which raises subsidiary issues concerning our ability to infer thoughts from brain activity and our ability to predict behavior based on one's inner thoughts, issues that cannot adequately be addressed here. My aim, rather, is to provide a framework to address the question, one that makes clear how the scope of a right to brain privacy may depend in part on what we come to learn about these subsidiary issues. Before I address the question I need to clarify what is meant by 'inner thoughts', and what is meant by having a 'right to privacy'.

Defining 'inner thoughts'

There are thoughts we might want to share with no one; or only with those with whom we are most intimate; or, as was the case with Cannibal Cop, only with a few strangers with similar interests but decidedly *not* with our loved ones. I use 'inner thoughts' to refer to thoughts we might not want to share indiscriminately. Inner thoughts can include memories of actual experiences; facts one knows (such as one's date of birth or login passwords); feelings; urges; wants or desires; intentions and aims one has;⁵ as well as imagined or false memories, dreams, and fantasies. One can plausibly expect privacy in some of this content. While it is unreasonable for someone to expect a public fact to be private, it conceivably could be reasonable for them to expect privacy in the fact that they do or do not know that fact. One court case involving a defendant charged with driving under the influence hinged on the question of whether the defendant could expect privacy in the fact that at the [182] time he did not appear to know what the date was when he turned 6 years old, and a majority of the U.S. Supreme Court ruled that he could expect to keep that to himself.⁶

Some skeptics doubt that at least some of these inner thoughts actually exist as mental states. Suppose a sophisticated computer made to resemble a human was programmed to utter the words 'I love this deliciously sweet drink' when it ingests and analyses beverages that possess a threshold sugar content and other chemical properties. Few people would hold that the computer possesses a mental state—most would say that the computer is just uttering certain words according to the instructions it was given and we should not infer from this that the computer actually has a preference for the drink—computers cannot have such inner thoughts. According to the skeptic, there is no fundamental difference between those

³ U.S. v. Valle, 807 F. 3d 508 (2015).

⁴ I assume Valle would not consent to the scan except in the very weak sense that he chooses to remain in his position of trust (as a police officer). For discussion of limits to consent, see Edwards 2012.

⁵ Wants, unlike mere urges, can be seen as dispositional states rather than immediate (unmediated by cognitive processes); intentions, unlike mere wants, involve formulating a plan of action (see also Gavaghan 2013, pp. 216-17).

⁶ Pennsylvania v. Muniz, 496 U.S. 582 (1990).

words being uttered by a computer or by a human being. Most people would disagree, and maintain that the human, unlike the machine, *does* possess mental states such as pleasure, or love, or understanding; and that while both humans and machines store data in memory, and while both follow rules and to that extent their behavior can be predicted, only humans can intend to act, or have feelings. But for the skeptic, there is no fundamental difference between a human brain and a complex computer, and artificial intelligence may someday be created that is indiscernible from human intelligence. If we insist that computers cannot have mental states, then, on the skeptic's view, neither can humans. We can impute a mental state to humans when they say they 'understand' or 'love'—but that imputation is nothing more than a reification.⁷ While I do not think this objection should be dismissed out of hand, I will assume that there is mental content humans can possess, including fantasies, feelings, and intentions, and that perhaps unlike computers, they can have an interest in keeping this content private. The assumption that people have desires, feelings, intentions, and the ability to choose whether to act upon them is central to our legal system and many of our core social practices including those involving blaming and rewarding (cf. Morse 2012, pp. 164-5; and Satel and Lilienfeld 2013, ch. 6). Even if some of these mental states are an illusion, there are still good reasons to act as if they are real.

There are various ways in which inner thoughts might be expressed or made manifest. One can put one's inner thoughts in a diary intended for no one else, perhaps as a document kept on one's password-protected computer. One might share them selectively with other individuals, as Valle did. Inner thoughts might be inferred from external signs, as when one infers from an individual's swastika tattoo that a murder he committed was motivated by racist hatred—though such inferences can be unreliable. Inner thoughts might be detected by interrogation, either by explicitly asking questions, or by using techniques to evoke responses from which are inferred one's 'true feelings'.⁸ Polygraphs have been used to attempt to expose [183] inner thoughts such as whether one is a communist sympathizer or a homosexual, and in the U.S. they are used on sex offenders during their probation period (Balmer and Sandland 2012). A more intrusive device, the penile plethysmograph (PPG)—which measures the expansion of a penis when a subject is shown sexually stimulating images—has been used as part of the treatment program for sex offenders to determine if they still have deviant desires (Balmer and Sandland 2012; Gavaghan 2013). Conceivably inner thoughts might be detected by devices that make images of our brain.

A right to privacy: legal and moral

I now consider what it means to have a 'right to privacy' in one's inner thoughts. A right to privacy might be a legal or a moral right. As a legal right it would constitute the basis for a legal cause of action against a tortfeasor who causes reputational, dignitary, or other injuries by invading one's privacy, or against the government that exposes a suspected criminal to legal punishment on the basis of the fruits of an illegal search. Valle was exposed to potentially harsh consequences for what he claims were his fantasies. He faced a prison term because the law of conspiracy allows punishment for forming an intention and making an agreement with others to commit a crime even if no illegal steps are ever taken to carry out the intention.⁹ Had Valle's inner thoughts been exposed by a warrantless government search of his laptop, or a scan of his brain, he might claim that the search violated a legal right to privacy rooted in the U.S. Constitution's 4th, 5th, and 14th Amendments. In this scenario, his legal right would be a right not to be subject to the government search, and if the government violates that right and convicts him, a right

⁷ For views sympathetic with this skeptical position see Turing 1950; and Wittgenstein 1969, Par. 6: '...a queer and extremely important mental state seems to be revealed.' See also Richmond 2012, p. 187. For more technical discussion with references, see Ramsey 2013.

⁸ Farahany refers to 'backward masking': a stimulus is presented, followed within milliseconds by another that masks the effect of the first; an instrument detects changes including facial activity that reflect an emotional reaction to the target stimuli even though the subject may not be consciously aware of the stimuli (2012a, p. 375).

⁹ On the troubling implications of the crime of conspiracy for privacy and individual freedom, see A. Goldstein 1959, especially pp. 434-6.

not to be imprisoned insofar as illegally obtained evidence is not to be used to convict someone of a crime. Valle may not have raised the possibility in court because his wife gave consent for the FBI to search their shared computer.

Valle also faced ‘non-legal’ or moral punishment for his inner thoughts: his wife and child left him, and he now has the reputation of being ‘Cannibal Cop’. He faced these consequences only because inner thoughts which he presumably did not want to share indiscriminately, and in which he might reasonably expect privacy, became exposed. If a non-state actor had searched his laptop without his permission and discovered his private thoughts and shared them with others, then a legal right to privacy might provide Valle a remedy for his suffering in the form of a privacy tort action. One reason Valle presumably did not pursue this course is that he would gain little from suing his wife; or perhaps he did not believe he could reasonably expect privacy against searches of a laptop he shared with her.

[184] The question of whether there is a legal right to brain privacy raises the interesting question of whether forced brain scans by the government would violate the 5th Amendment right not to be compelled to be a witness against oneself. The U.S. Supreme Court has interpreted the 5th Amendment to prohibit compelled *testimonial* evidence—such as being forced to admit that you broke the law--but not compelled *physical* evidence--such as that one’s handwriting looks scraggly, or that one’s voice is slurred.¹⁰ Is a ‘brain fingerprint,’ such as an fMRI image which detects greater flow of blood in certain regions of the brain when a suspect is presented with a photo of a crime scene that only the criminal would have a memory of, testimonial or physical evidence?(Farahany 2012a, pp. 382-3) Even if it were regarded as permitted physical evidence, given that brain scans currently require a subject’s cooperation, suspects could simply refuse to cooperate. But suppose a scanner could someday be used in the open environment on an individual without their knowledge, which at least now seems inconceivable (Edwards 2012, p. 248; Gazzaniga 2005, p. 114; Morse 2012). In that case, there are legal precedents that might bolster a claim that police could do so only with a warrant. In *Hayes v. Florida*, the U.S. Supreme Court ruled that taking someone’s fingerprints without their consent would require probable cause, though the opinion included dicta that if done with dispatch it might only require reasonable suspicion.¹¹ Prosecutors might argue that a brain scan would be less intrusive than taking a fingerprint, and analogous to looking at someone’s facial reactions, while defense attorneys could argue that while fingerprints merely reveal one’s identity, brain scans would uncover much more: on the assumption that brain scans could one day reveal one’s thoughts, they would expose deeply personal and sensitive information in which we can reasonably expect privacy.

But I shall focus instead on the question of whether there is, not a legal, but a moral right to brain privacy, the violation of which would warrant a judgment that an intruding individual or government acts badly. The scope of a moral right to privacy is relevant to the public policy question of whether government ought to conduct brain scans to expose one’s inner thoughts without one’s consent if doing so might help society avoid harm. In the conclusion I shall address a related question of individual ethics that I think is one of the more interesting issues suggested by the case of Cannibal Cop and is instructive for pointing to an important distinction between the privacy we should demand from government--which is most likely to possess the means for scanning brains--and the privacy we should expect of those with whom we intimately associate: was it morally wrong of Valle’s wife to peer into her husband’s inner thoughts without his consent if doing so might have exposed a threat to her safety? [185]

A framework for determining if there is a right to privacy

I approach the question of whether Valle has a right to privacy in his inner thoughts by drawing on the following framework: individuals can have a right to privacy in their inner thoughts if (i) a legitimate privacy interest is at stake and (ii) the legitimate interest in privacy is not clearly outweighed

¹⁰ *Schmerber v. California*, 384 U.S. 747 (1966).

¹¹ 470 U.S. 811 (1985).

by more compelling interests.¹² Determining whether there is a right to privacy requires us to weigh competing interests in privacy and in public safety and well-being. How this balancing of interests plays out will depend on a number of factors, including whether the information one does not want exposed is readily accessible to others through legitimate means of observation; the extent to which one's autonomy and associated reputational interests are set back and one's dignity is violated by the exposure; and how reliable the information that is uncovered is in predicting true threats. Focusing on the case of 'cannibal cop' lets me illustrate how the general framework of balancing competing interests can be applied. My hope is that even if one disagrees about the balancing of interests in this particular case, the framework will be found useful in determining the scope of a right to brain privacy generally.

(i) Can one have a reasonable expectation of privacy in one's inner thoughts?

Before we can say that one has a right to privacy, it first must be shown that one has a legitimate interest in or can reasonably expect privacy. You might desire to keep private the fact that you made a hateful remark, and even have an interest in keeping this fact private; but if you spoke loudly in a public place crowded with people who recognize you, then you cannot reasonably expect privacy: your desire is misplaced and your interest in privacy is not legitimate. It seems uncontroversial to say that one can reasonably expect privacy in one's inner thoughts, but the issue becomes more difficult when those thoughts have been made manifest to others. Someone suspected of driving under the influence cannot reasonably expect privacy in the fact that their mental faculties are impaired by alcohol if the police pull them over, ask them in the interest of public safety to balance themselves on one foot, and observe that they cannot.

Had Valle simply had thoughts about abduction and cannibalism in his mind and never shared them with others, as in the hypothetical case where they are inferred or exposed only by brain scans, or had he written his thoughts down in a private diary, never intending to share them, his thoughts would remain his own, and I think it clear that he has a legitimate privacy interest in these thoughts, *regardless of their content*--though whether this interest is outweighed by competing societal interests will certainly depend on their content.¹³

[186] More controversial would be if he had inadvertently shared his thoughts, as might be the case if he thoughtlessly left his diary at a restaurant and it was found and turned over to the police. One appellate court ruled that an individual abandons privacy and free speech protections in this case as a matter of law;¹⁴ but as a matter of morality, and taking into account societal norms regarding the privacy of diaries, I think we should say that one acts badly when reading another's diary even if it appears to have been abandoned, unless there was a compelling reason to examine it.

Valle in fact voluntarily and knowingly shared his deviant thoughts with his chatroom interlocutors. But that does not mean he has no legitimate privacy interest in those thoughts. One important way of understanding privacy is as a control of who has access to information about oneself (Rössler 2005, pp. 52, 62-3, 71-2; Tunick 2013). Privacy gives us the ability to grant access to a select few while denying it to others. This ability enables us to form relations of trust and friendship with some, while having civil, arms-length relations with others, and allows us to assume various roles such as

¹² See Tunick 2015, pp. 130-33 (laying out a framework for assessing the relative weight of privacy and competing interests).

¹³ To illustrate: if there were a 1% chance that a fantasy would translate into successful action, and if the content of the fantasy was such that if successfully carried out society would suffer disutility of -1000 utiles, the expected weight of the societal interest would be 10 utiles. The direr the consequences if the fantasy were successfully carried out, the greater the societal interest in exposing it. Of course the more implausible the fantasy, the lower the probability of it translating into successful action. I do not mean to suggest we should be utilitarians when we balance competing interests, or that we could accurately calculate the relevant probability. My point is only to illustrate that the content of a fantasy can matter not to whether one has a legitimate privacy interest, but to whether that interest outweighs competing societal interests in safety and should be regarded as a right.

¹⁴ *Barrett v. Acevedo*, 169 F.3d 1155 (8th Cir. 1999).

colleague, student, family member, friend, patient, consumer, lover, neighbor, each role having different norms concerning what information is appropriate to share, norms that themselves can be modified based on a complex web of other factors.¹⁵ When you share a secret with a select circle of individuals, even a large circle of strangers with a shared interest, we should not assume that you therefore have no interest in keeping this secret from those who are not members of that circle. A classic example is the case of Oliver Sipple: he shared the fact that he was a homosexual with members of the San Francisco gay community but still had an interest in keeping this fact from his parents who lived in Detroit; that interest was frustrated when a widely distributed newspaper ‘outed’ him after he heroically saved President Ford’s life.¹⁶ Valle shared his thoughts with a few individuals he did not know, but he did not want to share them with his wife or the government. He had a specific interest in not doing so—the avoidance of legal punishment and reputational harm; and a general and widely shared interest in autonomy—in being able to create the image of oneself that is projected to others. While Valle’s thoughts were in one sense not ‘inner’ with respect to his chatroom interlocutors since he shared his thoughts with them, they were inner with respect to the rest of the world; and in another sense he did not expose his inner thoughts even to his interlocutors, as he used an alias and concealed his true identity, making his speech anonymous. While he expressed his thoughts to others, the fact that the thoughts were *his* remains a private fact. [187]

(ii) Balancing the value of privacy in inner thoughts against the value of disclosure

Even if we have a legitimate privacy interest in our inner thoughts, if that interest is not as weighty as competing interests that might justify making this information available, such as societal interests in the detection or prevention of serious crime, then our interest in privacy might not entail a right to privacy. Had the inner thoughts of Andreas Lubitz been known in advance, the 150 people who were killed when he intentionally crashed the Germanwings plane he was piloting might still be alive (Kush 2015). James Holmes, the gunman who killed 12 people in a Colorado movie theater in 2012, kept a diary that contained murderous fantasies; had its contents been known, a catastrophe might have been averted (Healy 2015). The jury who unanimously convicted Valle apparently saw him as a true threat, as did his wife. In some cases, an individual can have a legitimate interest in privacy but that interest must give way to more compelling interests.

I will focus on two considerations we should take into account in deciding whether the privacy interests we have in our inner thoughts hold greater weight than the interests society has in accessing those thoughts. First, one reason to value privacy, understood as the ability to control who has access to information about oneself, is that informational privacy promotes autonomy, in part by letting us avoid undeserved or disproportionate punishment or reputational injury; another reason is that privacy can let us preserve our dignity as humans. So in balancing interests in a particular case we should consider to what extent exposure of private information would undermine reputational and dignity interests. A second consideration comes into play when we assess the weight of societal interests in preventing or deterring harmful conduct, against which the interest in privacy must be balanced. Inner thoughts do not necessarily translate into actions affecting others. Fantasies by their nature are not intentions to act. If fantasies rarely lead to harmful conduct, the societal interest in exposing them may be minimal. However, if one’s fantasies accurately reflect one’s character and disposition to act, then one’s violent fantasies might indicate a likelihood that one will harm others, and the societal interest in exposing them could be substantial. In assessing this, we may also need to consider to what extent imaging and other devices (polygraphs, PPGs) reliably infer what is in the mind. Their unreliability could diminish the strength of the societal interest in exposing inner thoughts.

The value of privacy in inner thoughts

¹⁵ On the value of privacy in letting us maintain intimate relationships and friendships, see Fried 1968.

¹⁶See Sipple v. Chronicle Publishing Co., 154 Cal.App.3d 1040 (1984)(ruling against Sipple) and criticism of this decision in Tunick 2015, pp. 28-29.

Why should we have a right to control who has access to the content of our minds? Why should we care if someone were to read our minds or capture our dreams without our consent? Of course there are obvious reasons not to want others to know our passwords, industrial or state secrets, or other sensitive information that, if revealed, could expose us to economic or other harms. But what about information that is not sensitive in this way? In this section I focus on two values that are [188] promoted when we protect the privacy of inner thoughts: autonomy and associated reputational interests; and dignity.

Autonomy interests and reputational harm

Autonomy can refer to a number of related interests, but I shall focus on one in particular: the interest in controlling how one presents oneself to others. This interest is associated with a reputational interest in not being judged unfairly on the basis of snippets about ourselves that may not truly reflect who we are (Rosen 2000), and in avoiding unmerited or disproportionate punishment by society (Tunick 2013). For example, a restaurant patron who gets frustrated with a waiter's inattentive service might lose control and shout out vulgar language; while she must have understood that anyone within earshot would see what she can be like when she is upset, she has a privacy interest in not having this scene memorialized by being videotaped and shared on YouTube. She might normally be kind, gracious and patient, but at the restaurant she may have been subject to pressures not visible to others. She has an interest in not being perpetually judged and punished for behavior that may not accurately reflect her character (Tunick 2015, p. 78).

So too, individuals have a reputational interest in not being judged and punished for their fantasies. If Valle is able to separate the self that fantasizes about abducting and eating women from the self that he projects to the world and that acts in the world, then to expose his fantasies could result in his being judged for an aspect or snippet of his complex self that he keeps hidden. Why would that be troubling?

If Valle cannot control his having the fantasies he has, then according to the principle that it is unjust to hold someone accountable for something that is beyond their control, he would not deserve to be morally punished. It would be unjust, for example, to blame someone because they were born with a defect they can do nothing to correct. We can justly hold individuals accountable for actions they could have chosen not to take; but according to this principle we cannot justly hold them accountable for their fantasies or other inner thoughts that they do not choose to have but simply have.

But suppose it is possible to suppress one's thoughts. One might argue that it is not wrong to judge Valle insofar as he is to blame for nurturing his urges and fantasies rather than suppressing them.¹⁷ In responding to this objection we should distinguish between suppressing outward expressions of one's thoughts, and suppressing the calling forth of certain thoughts in one's own mind, as in training oneself to avoid having sexual fantasies. In either case, one has an interest in not *having* to suppress these thoughts. In the former case, this interest is associated with free speech interests: the threat of exposure and punishment for speaking to others could have a chilling effect.¹⁸ Even though Valle's speech was private, shared with just a few others, about matters that may be of no legitimate public interest, and [189] therefore not the sort of speech usually regarded as deserving heightened protection, it still can have value as a means of self-expression. In *Stanley v. Georgia*, the U.S. Supreme Court declared that Stanley had a First Amendment right to enjoy pornographic material in his own home. The Court referred to Stanley's interest as both a privacy interest—an interest in not having one's 'private thoughts' controlled by the state--and a free speech interest, understood by the Court as a 'right to receive information and ideas.'¹⁹ Valle and his interlocutors, one might argue, have an interest in expressing and receiving each other's thoughts in the same way Stanley had an interest in receiving pornographic material. Of course this

¹⁷ I thank two anonymous reviewers for pressing this point. Cf. Morse 2013.

¹⁸ See *In re Grand Jury Proceedings*, 632 F.2d 1033 (1980), 1043; and Ek 2015 (discussing criticism of Valle's conviction on First Amendment grounds).

¹⁹ 394 U.S. 557, 564 (1969).

interest might need to be balanced against societal interests in discouraging hateful or violence-promoting speech or the making of explicit threats.

But the free speech argument alone does not adequately capture what is at stake, and would not explain Valle's privacy interest in the hypothetical case where his inner thoughts were uncovered only through a brain scan. Being forced to suppress fantasies and other *unexpressed* thoughts—assuming we could suppress them—would undermine important autonomy interests in the liberty of thought and conscience.²⁰ These liberties are of central importance in a liberal, pluralist society in protecting those who hold socially unpopular views from persecution (Mill 1859, 4:21). A liberal, pluralist society is premised on the view that there is no single correct way to live, and that we should be free to pursue our own aims and adopt our own comprehensive doctrines and views regarding the ends of life so long as this does not preclude others from doing the same (Rawls 1987, Berlin 1969). According to J.S. Mill's defense of liberty, a society in which individuals have free play to imagine and experiment with different ways of living without being unduly constrained by customs and conventions is more likely to progress (Mill 1859, 3:1, 3:11). We are on the whole better off having this liberty even though particular individuals might not always exercise their liberty constructively (Nussbaum 2010, p. 37). While the argument for liberty of thought and conscience was certainly not conceived to facilitate sick, socially deviant fantasies such as Valle's, nevertheless it demands that Valle should be free to fantasize, even to have deeply disturbing fantasies, or even be free to make his fantasies more vivid by conducting research into his imagined victims, just as an author should be free to research how to kill someone to better envision a story. With one crucial proviso: so long as he is able to separate the self that has dark fantasies from the self that projects outwardly and acts in the world.²¹

The interest in liberty of thought is closely tied to reputational interests. Valle claims he was not conspiring but fantasizing, and he has an interest in being able to fantasize without facing undue legal or non-legal punishment. Sarah Richmond has suggested that rather than shelter inner thoughts from exposure, why not accept the possibility that these thoughts can be accessed, but develop social norms according [190] to which it would be wrong to take someone to task for their uncommunicated thoughts (Richmond 2012, p. 193)? Her alternative is to cultivate our capacity to tolerate others so that our inner lives would not need protection: not more privacy, but more tolerance. The problem with that approach when applied to Cannibal Cop is that it seems doubtful that people could refrain from judging him. The decision of Valle's wife to leave him was perfectly understandable and it might be unreasonable to expect her to act otherwise. The drive to judge and punish is sometimes too strong to ignore. It can serve a positive social function, though it can also be dysfunctional and destructive. A stronger norm of privacy might have kept Valle's wife from searching his online communications in the first place and learning of his disturbing fantasies. Yet one may have a moral right to know such things about one's spouse. Whether there is this right, and whether Valle *ought* to be morally judged because he has sick fantasies, even if he were never to act on them, are questions I'll return to in the concluding section.

Dignitary harm

Exposure of someone's inner thoughts can also be regarded as an indignity, an intrinsic wrong apart from the consequences it may have to someone's reputation. A paradigmatic instance where exposure amounts to an indignity is involuntary physical exposure of one's body, as when a Muslim woman who wears a veil has the veil forcibly removed, or a Peeping Tom videotapes someone taking a shower in private. But merely the discovery of what one expects to keep private can be an indignity even if it does not involve physical exposure of body parts that normally remain hidden. Consider the use of the penile plethysmograph. Requiring a person to undress, have a device strapped around his sexual organs, observe sexually explicit material, and have his responses measured, imposes a physical indignity

²⁰ See Locke 1689; Nussbaum 2010; and Mill 1859, especially 1:13.

²¹ Mill might say that while Valle may displease us, and even violate a duty to himself, he does not violate a duty to others and we therefore have no right to control him (Mill 1859, 4:4-7, 3:9), so long as his fantasies do not transform into other-regarding activity that for Mill is the only category of activity that society may properly punish.

in requiring him to expose his body. But what may be more of an indignity is the exposing of one's most intimate sexual fantasies to strangers (Gavaghan 2013, p. 214).²² The 9th Circuit Court of Appeals, in objecting to the PPG procedure because of its substantial physical and mental intrusiveness—it is 'a probing of [one's] innermost thoughts'—noted there are less intrusive alternatives such as Abel testing, during which a subject is shown photos and scientists measure the length of time the subject looks at each picture.²³ Abel testing certainly avoids the physical indignity of having one's naked body exposed; but insofar as it intrudes upon one's brain privacy it imposes the same mental indignity as is imposed by the PPG procedure, or the use of an imaging device to read one's mind.

This dignity interest is distinct from a reputational interest. To recognize this dignity interest is to respect an individual as a person entitled to a 'private inner [191] sanctum of individual feelings and thought.'²⁴ If it were very difficult for us to suppress inner thoughts in the way it is possible for us to choose not to write or speak, exposure would be even more disturbing—we would be judged for something we cannot help. Judging us would undermine reputational interests and subject us to undeserved punishment. But apart from the unpleasant consequences of punishment that might result, the very act of exposing an aspect of ourselves we wish to keep hidden fails to respect us as persons by denying us our status as moral agents who can choose not to act on our urges or fantasies (cf. Gavaghan 2013, pp. 219-20).

Some individuals may have shown through their actions that they no longer are deserving of respect. But that concern could be met by setting the bar to peer into a person's inner thoughts against their will quite high, as is the bar for police in the U.S. to conduct a search of one's home—probable cause that one is a true threat.

Inferring a threat of harmful behavior

Cannibal cop had a substantial privacy interest in not having one disturbing aspect of his self that he kept hidden from others be made known to the world and used to judge him. Exposure of Valle's inner thoughts could lead to his being legally punished and to the loss of his job. Depending on how widely the fruits of the search of his inner thoughts were shared, it could also lead to other reputational harms that cause him shame and threaten his friendships and family relationships; and it would involve a dignitary harm. The weight of the privacy interest could be substantial. Whether or not *he* cared about privacy is not important to the question of whether as a matter of public policy we should regard an intrusion into one's inner thoughts as justified: someone in his position could have a legitimate interest in and reasonably expect privacy. But this interest in privacy is not yet a right. Interests fall short of being rights when they are outweighed by more compelling interests. If deviant and antisocial thoughts led to harmful behavior, exposing them in order to prevent harm could promote an interest so compelling that it outweighed even a substantial privacy interest. But before we can say that societal interests in public safety outweigh privacy interests, we need to consider how reliable is the inference from inner thought to harmful behavior.

Let us return to the hypothetical case in which we suppose Valle did not share his fantasies with anyone but that they were inferred from brain scans. To show a strong societal interest in avoiding harm, we would first need to show that brain scans can reliably detect antisocial thoughts that amount to intentions or propensities to act, and this might be difficult to do: images can detect activity in the brain, but the brain is not the mind.²⁵ Inferences we make from brain images can be unreliable. For [192]

²² Some courts have allowed use of penile plethysmographs for treatment and supervision as a condition of release. See *U.S. v. Dotson*, 324 F.3d 256 (4th Cir. 2003); and *Mitchell v. State of Texas*, 420 S.W.3d 448 (2014); but see *U.S. v. Medina*, 779 F.3d 55 (1st Cir 2015).

²³ *U.S. v. Weber*, 451 F.3d 552 (9th Cir 2006), pp. 562-3, 566, 567.

²⁴ *Couch v. U.S.*, 409 US 322 (1973); cited in *In re Grand Jury Proceedings*, 632 F.2d 1033 (1980), p. 1043; cf. *Benn* 1984.

²⁵ *Satel and Lilienfeld* 2013; *Shen* 2013, pp. 659, 676-9; *Richmond* 2012b, p. 5; *Morse* 2012, pp. 165-6; *Sinnott-Armstrong et al.* 2008; *Peters et al.* 2005. Courts also seem to be skeptical about what we can infer from brain scans:

example, scans can detect false memories (Shen 2013, p. 683). Gazzaniga suggests the example in which the brain of a suspected terrorist who denies ever being in a terrorist camp is scanned while the suspect is shown images of the camp. If the images are similar to ones the suspect saw in a movie about terrorists, his brain activity might imply that he was lying, although in fact he never was at the camp (see Gazzaniga 2005, p. 113).

Assuming for the sake of argument that fantasies could be exposed by brain scans, a second obstacle to establishing a compelling societal interest for exposing a person's inner thoughts would remain: could we predict from the fact that Valle has fantasies of committing violent acts that he poses a true threat?²⁶ Possessing a thought does not mean you will act on it (Gazzaniga 2005, p. 108). Sexual fantasies do not necessarily represent actual desires (Williams 2009), let alone intentions to act.²⁷ Valle's case could therefore be distinguished from a case where someone has an intention to commit a bank robbery or other crime. When we balance privacy and societal interests in the latter case, the societal interest may be weightier insofar as an intention is more than a fantasy and is more likely than a fantasy to constitute a true threat. People evidently fantasize about cannibalism, yet according to one commentator, there has been only one recorded case of a 'vore-forum' user (vore being internet slang for cannibalism) actually committing cannibalism—a German who ate his victim at the victim's own request (Ek 2015, p. 929). So too, someone can have pedophilic urges without sexually abusing a child or without forming an intention to do so (Gavaghan 2013, pp. 213, 218).²⁸

[193] If the use of brain scans were not a reliable means of exposing Valle's thoughts, or if they were, but fantasies do not accurately reflect one's character or disposition to act both because fantasies by their very nature differ from intentions, and because one's ability to suppress the temptation to *act* may be stronger than one's ability to suppress the thoughts that come into one's head, then the societal interest might not outweigh a substantial privacy interest. To establish that fantasies are predictive of a true threat we would need evidence that one's fantasies accurately reflect one's character and disposition to cause harm. In Valle's case, there was little evidence that he could not keep in check his fantasizing inner self while conforming the self he exposed to the world to the law and other social norms.

Valle expressed thoughts about doing very bad things, and I certainly do not condone his

see e.g. *Slaughter v. State of Oklahoma*, 105 P. 3d 832 (2005); *Wilson v. Corestaff Services L.P.*, 900 N.Y.S. 2d 639 (2010) (disallowing use of fMRI evidence to show truthfulness of a witness as it fails the Frye test, which asks whether the procedure has 'gained such standing and scientific recognition among physiological and psychological authorities' as to justify its use); and Shen 2013, p. 681.

²⁶ One might argue that this societal interest could be advanced not just by indirect inferences about deviant acts made from a brain scan indicating a fantasy, but by brain scans that directly expose a propensity to act deviantly. In one case researchers discovered that a patient who had only recently exhibited pedophilia had a tumor displacing the right orbitofrontal cortex, a region which contributes to moral knowledge acquisition and social integration. Before the tumor was removed he was given certain cognitive tasks and performed poorly; for example, he scored in the bottom 1st percentile in the task of naming words that begin with C, F, and L. After the tumor was removed he was able to perform that task at the 51st percentile, and his 'symptoms resolved' (Burns and Swerdlow 2003, pp. 436-9). In this case we might plausibly conclude that the tumor caused the patient's inability to control sexual impulses. But uses of scans to show a brain abnormality that is causally linked to behavior are rare (Sinnott-Armstrong et.al. 2008, p. 365). There are cases in which scans revealed a cyst in the brain that was alleged to have 'caused' a crime, but there was no evidence that the cyst was relevant to the crime (Satel and Lilienfeld 2013, pp. 104-9). In most cases at present one can hope to show only a significant correlation between observations of brain functions and behavior, and judging people based on correlations or statistical propensities is certain to lead to individual miscarriages of justice. People with abnormal brains refrain from crime, and people with normal brains commit crime (Sinnott-Armstrong 2008, p. 365).

²⁷ The 2nd Circuit Court of Appeals opinion notes that Valle was interested in cannibalism but that is far short of intending to act (807 F. 3d 508, 519).

²⁸ Several studies of non-criminals indicated that deviant sexual fantasies are relatively common: across six studies an average of 10% of the population had pedophilic fantasies, and 31% had rape fantasies (Williams 2009, p. 201). Williams et.al. conducted a limited study suggesting that deviant sex fantasies have little association with deviant behavior for those with low psychopathy scores (2009, p. 214).

chatroom exchanges or minimize the potentially serious consequences when violent fantasies that demean and degrade women and fail to respect them as humans with dignity are publicly shared or encouraged. But he had no prior criminal record, and there is no evidence that he ever in fact abducted, tortured, or killed anyone. The actions he did take, such as looking up websites about using chloroform to incapacitate someone, communicating with former female college friends (albeit friends he had fantasies about abducting), and making private, online communications with strangers that mentioned payments to kidnap women that Valle knew, never led to any actual abductions. As the district court judge who dismissed his conviction noted, Valle repeatedly lied to his three alleged co-conspirators—one of whom lived in either Pakistan or India and another in England--about where he and his so-called targets lived, and when dates they set for kidnaps came and went, they made no further reference to their supposed previous plans—indicating that no one was serious about them. It was harmless fantasizing.²⁹

Conclusion: Applying the framework to government and to individuals

I have offered a framework that can be used to think about intrusions of privacy involving existing technologies as well as future intrusions involving brain imaging. According to the framework, in addressing the question of whether it is morally wrong to expose one's inner thoughts without one's consent if doing so might help avoid harm we first ask if one has a legitimate interest in privacy. If the answer is yes, in deciding whether that interest should be regarded as a right we assess the weight of that interest against the weight of society's interest in public safety. The framework has us take into account both privacy interests and society's interest in public safety.

In the hypothetical case in which the government conducts a brain scan on individuals to determine if they pose threats, substantial privacy interests are at stake, including the interest one has in keeping one's fantasies to oneself. One reason privacy is valuable, I have argued, is because it can protect us against unwanted attention or exposure that can result in undeserved or disproportionate punishment. One might object that Valle deserves to be morally reproached and [194] suffer reputational harm for having his deviant fantasies, or not suppressing them. I have argued in response to that objection that individuals should not be forced to suppress their fantasies if society is not clearly harmed by them. This case can be made by appealing to the value of autonomy, the dignity we have in being respected as persons, and the value of liberty of thought in a liberal, pluralist society. While conducting brain scans might conceivably detect threats, the weight of privacy interests and the uncertainty in the ability of the technology to detect true threats might lead us to conclude that government should have probable cause before intruding into an individual's inner thoughts.

The same framework can be applied to the question of individual ethics I raised earlier: was it morally wrong of Valle's wife to invade her husband's privacy and judge and punish him for his inner thoughts? Unlike the government in the hypothetical case where it adopts a policy of suspicion-less brain scans, Valle's wife may have had a reasonable suspicion that prompted her to use spyware to find out more. And while the weight of Valle's privacy interest was substantial, so was her interest: her aim was not to satisfy a lurid curiosity, but to protect her and her child from a possible threat. The expectations of privacy Valle can reasonably have against the government can differ from those he has against his wife or others with whom he is intimate. We sometimes decide who to befriend or become close to because of the sort of person they are 'deep inside'. Valle's wife may have been justified in snooping through her husband's computer files to find out more about the sort of person he is, even though this could breach the mutual trust they may have had in each other. If she really believed he posed a threat, she may have acted prudently in calling the FBI, as they have the resources to discover facts about Valle's past that might indicate he poses a true threat. In contrast, in a liberal, pluralist society our relationship as fellow citizens to each other and to our government should not normally depend on what our innermost, hidden selves are, so long as we conform our behavior with the requirements of civil society. One exception may be where one assumes a position of trust in society. One could argue that the government did not act

²⁹ 301 F.R.D. 53, 60-3, 90.

badly in removing Valle as a police officer because his deviant fantasies are counter-indications of the moral character we could reasonably expect police officers to have, although a respect for Valle's privacy interests might require that the due process hearings that Valle surely should be provided be conducted in private so as to minimize Valle's reputational harm. But between the point where Valle's wife pursued her own legitimate interest in knowing more about her husband, and the point when a prosecutor publicly exposed Valle's inner thoughts in charging him with a crime, it is important to consider the weight of the conflicting values at stake and not simply assume that public safety trumps the privacy of inner thoughts.

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