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## The Right to Personality: Navigating the Brave New World of Personality-Altering Interventions

Christopher S. Sundby

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## Article

### The Right to Personality: Navigating the Brave New World of Personality-Altering Interventions

CHRISTOPHER S. SUNDBY

*As neuroscience progresses, policy makers will have an increasing arsenal of behavior-modifying interventions at their disposal to deploy in the hopes of reducing recidivism and making the criminal justice system more rehabilitative. While these interventions are promising, they also can pose grave risks to individual liberty interests that are insufficiently acknowledged, much less protected, by current jurisprudence. Specifically, the current legal regimes and proposed alternatives either fail to identify the nature of the liberty at stake by overly focusing on physical side effects to the exclusion of thought- and personality-altering side effects, reject completely the potential for these interventions to improve the justice system, or inadvertently invite the medicalization of crime. This Article proposes a balancing test centered around the Fifth and Fourteenth Amendment liberty interest in “personality integrity.” This liberty interest has roots in the “intellectual prong” of the liberty interest referenced in the Supreme Court’s forced medication jurisprudence. This approach allows for the adoption of some beneficial interventions as technology progresses, avoids subjective assessments of “good” or “bad” personality traits, and properly protects against the coercive alteration of the core identity of the individual.*

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# The Right to Personality: Navigating the Brave New World of Personality-Altering Interventions

CHRISTOPHER S. SUNDBY \*

## INTRODUCTION

Does the state ever have the right to *make* a defendant a better person against their will? The near-universal first reaction is “No!” because the mere question triggers images of dystopian societies like those depicted in George Orwell’s *1984* and Aldous Huxley’s *Brave New World*.<sup>1</sup>

Others may point to the more concrete abuses in the psychiatric community’s history, such as defining homosexuality as a medical disorder<sup>2</sup> or awarding the Nobel Prize to the inventor of the frontal lobe lobotomy.<sup>3</sup> The question, however, is far more difficult to answer if asked in a context where the mandatory treatment is seen as beneficial for the person rather than merely forcing the person to bend to society’s will. In general, the public favors rehabilitation over incarceration for nonviolent drug offenders.<sup>4</sup> This support extends to at least some forms of mandatory interventions. For example, a 2006 study showed that fifty-six percent of the public found mandatory treatment and counseling programs for drug offenders to be “often” a more appropriate sentence than jail time.<sup>5</sup> Similarly, sixty-one percent of the public support mandatory treatment and counseling programs for nonviolent offenders under the age of twenty-five,

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<sup>1</sup> See e.g., GEORGE ORWELL, *NINETEEN EIGHTY-FOUR* (1949); ALDOUS HUXLEY, *BRAVE NEW WORLD* (1932).

<sup>2</sup> See generally Jack Drescher, *Out of DSM: Depathologizing Homosexuality*, 5 *BEHAV. SCIS.* 565 (2015) (describing the history of the pathologization of homosexuality).

<sup>3</sup> *Egas Moniz: Facts*, NOBEL PRIZE, <https://www.nobelprize.org/prizes/medicine/1949/moniz/facts> (last visited Nov. 8, 2022).

<sup>4</sup> See generally Matthew Clarke, *Polls Show People Favor Rehabilitation over Incarceration*, *PRISON LEGAL NEWS* (Nov. 6, 2018), <https://www.prisonlegalnews.org/news/2018/nov/6/polls-show-people-favor-rehabilitation-over-incarceration/> (summarizing the findings of polls conducted by the Vera Institute of Justice, the ACLU’s Campaign for Smart Justice, the Justice Action Network, and the John D. & Catherine T. MacArthur Foundation).

<sup>5</sup> PRINCETON SURV. RSCH. ASSOCS. INT’L FOR NAT’L CTR. FOR STATE COURTS, *THE NCSC SENTENCING ATTITUDES SURVEY: A REPORT ON THE FINDINGS 5–6* (2006), [https://www.ncsc.org/\\_data/assets/pdf\\_file/0021/25851/the-ncsc-sentencing-attitudes-survey.pdf](https://www.ncsc.org/_data/assets/pdf_file/0021/25851/the-ncsc-sentencing-attitudes-survey.pdf) [hereinafter PRINCETON SURVEY].

and sixty-three percent support mandatory education and job training.<sup>6</sup> The answer to the question, in short, is far more nuanced than first assumed.

Granted, there are interventions that clearly go too far and offend basic notions of justice, such as forced physical castration.<sup>7</sup> But while the line between mandatory counseling for a twenty-three-year-old drug offender and mandated surgical castration may be easy to draw, articulating a standard for when the legal system should allow intervention across a wide variety of situations is anything but easy. As science and technology progress, new types of interventions will arise without the aura of medieval barbarity that attaches to physical castration. Those new interventions may offer the promise of a more efficient justice system but still imperil important constitutional rights. Treatments that push this boundary are already in use. Eight states currently have chemical castration laws in place.<sup>8</sup> While some scholars have already pointed to the coming challenges,<sup>9</sup> legal theories drawing the line between interventions that promise a more rehabilitative criminal justice system and those that offend core constitutional rights remain underdeveloped.

Without an updated legal framework to address the new wave of potential interventions, judges may shy away from nuance to facilitate consistency, moving toward either the “medicalization” of crime as they stretch the definition of mental illness to encompass more defendants or a complete refusal to allow these interventions despite their potential beneficial impact. This Article first explores how the current framework is ill-prepared for the new wave of possible interventions science will offer. It then looks at how the legal system might distinguish between appropriate and inappropriate interventions. The Article conducts this examination by addressing the issue of forced intervention through six sentencing scenarios based on three defendants who can be subjected to either a behavioral or chemical intervention.

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<sup>6</sup> *Id.* at 5.

<sup>7</sup> See *Furman v. Georgia*, 408 U.S. 238, 265 (1972) (quoting *Weems v. United States*, 217 U.S. 349, 377 (1910) (noting in a discussion about which punishments violate the Eighth Amendment that a Virginia court listed castration among cruel and unusual punishments)).

<sup>8</sup> Ryan Cauley, Note, *Is Chemical Castration a Progressive or Primitive Punishment? Balls Are in Your Court*, *Iowa Legislature*, 17 J. GENDER RACE & JUST. 493, 498 (2014) (noting California, Florida, Iowa, Louisiana, Montana, Texas, and Wisconsin have castration laws on the books, and Georgia and Oregon repealed chemical castration laws); Mike Cason, *Alabama Gov. Kay Ivey Signs ‘Chemical Castration’ Bill into Law*, AL.COM, <https://www.al.com/news/2019/06/alabama-gov-kay-ivey-signs-chemical-castration-bill-into-law.html> (June 10, 2019, 5:36 PM). For a discussion and comparison of the different structures of the state statutes, see Edward A. Fitzgerald, *Chemical Castration: MPA Treatment of the Sexual Offender*, 18 AM. J. CRIM. L. 1, 10–12 (1990); John F. Stinneford, *Incapacitation Through Maiming: Chemical Castration, the Eighth Amendment, and the Denial of Human Dignity*, 3 U. ST. THOMAS L.J. 559, 578–82 (2006).

<sup>9</sup> See, e.g., Henry T. Greely, *Neuroscience and Criminal Justice: Not Responsibility but Treatment*, 56 U. KAN. L. REV. 1103, 1137–38 (2008); Adrian Barton, *Sentenced to Treatment? Criminal Justice Orders and the Health Service*, 19 CRITICAL SOC. POL’Y 463 (1999).

Part I examines these scenarios under the Supreme Court's current legal standards, announced in *Washington v. Harper* and *Sell v. United States*, for the forced medication of mentally ill defendants.<sup>10</sup> As will be shown, the *Harper-Sell* standard for the forced administration of antipsychotics, with its focus on "medical appropriateness" and physical symptoms, is ill-suited to evaluate the overall appropriateness of these types of interventions.<sup>11</sup> Instead, new interventions generally fall into a middle ground between medical treatment and cognitive enhancement: that is, the purpose of the imposed intervention is neither to treat a medical ailment nor to enhance a healthy individual's potential beyond the norm, but rather to allow the defendant to reach his societal potential by removing or defusing an impediment to living a productive life. This Article argues that interventions aimed at this middle ground require a new legal framework to assess their legality and appropriateness.

Part II evaluates several legal approaches that have been proposed for deciding the appropriateness of these types of interventions. After detailing the shortcomings of these proposals, the Article proposes an alternative solution that turns upon finding a substantive liberty interest in "personality integrity" within the Fifth and Fourteenth Amendments. This section argues that the justice system should not focus on whether the intervention is chemical or physical; rather, the inquiry should evaluate what aspect of the defendant the intervention targets, distinguishing between mere behavioral manifestations and core personality traits.

Next, in Part III, the Article discusses the legal basis for this liberty interest and explores how each scenario would be evaluated under the proposed "personality integrity" model. Unlike the current approaches, the recognition of a liberty interest in personality integrity can maximize the promise that some new interventions will offer for the betterment of a defendant's life and society's safety, while still providing safeguards against the types of abuse that occur too often.<sup>12</sup>

## I. DEFINING THE INTERVENTION

Neuroscience has already started to carve out a role within the criminal justice system. Numerous articles and books have helped to improve the criminal justice system by improving our understanding of culpability

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<sup>10</sup> See generally *Washington v. Harper*, 494 U.S. 210 (1990); *Sell v. United States*, 539 U.S. 166 (2003).

<sup>11</sup> See *infra* Section I.C.

<sup>12</sup> England chemically castrated somewhere between 50,000 and 100,000 individuals for being homosexual under an 1885 "gross indecency" law that was not fully repealed until 2003. Peter Tatchell, *The Imitation Game: Homophobia Still Persists Long After Alan Turing's Death*, PINK NEWS (Nov. 19, 2014), <https://www.pinknews.co.uk/2014/11/19/peter-tatchell-homophobia-still-persists-long-after-alan-turings-death/>.

(including our conceptualization of mens rea<sup>13</sup> and how to account for age),<sup>14</sup> the insanity defense,<sup>15</sup> evidence at trial,<sup>16</sup> and how we decide to punish,<sup>17</sup> among numerous other areas. Indeed, an entire research network was created to explore the interaction between neuroscience and the law.<sup>18</sup> This next section discusses another potential role of neuroscience in the criminal justice architecture—as part of the sentence once guilt has been determined.

#### A. *The Scenarios*

To explore the nuances of the dangers and advantages of interventions intended to alter a defendant's behavior, this Article will use six sentencing scenarios involving three defendants ordered to receive mandated interventions as part of their sentences. While two of the chemical interventions described in these hypothetical scenarios are in current use, the other four scenarios assume the drugs involved have advanced to the point where they produce only nominal physical side effects. For clarity of analysis, this Article also assumes that all of the interventions have been empirically shown to be effective in lowering recidivism for the class of crimes targeted, and that the legislature has passed legislation granting the power to impose these interventions as part of a criminal sentence.

Defendant One was convicted of his third DUI in five years after driving off the road following a typical night of heavy drinking. The defendant is a self-admitted alcoholic but has consistently refused to seek treatment. In scenario 1A, the judge deems the defendant's repeated DUIs and failure to voluntarily seek treatment a risk to the public and, in addition to a prison term, orders compulsory Alcoholics Anonymous (AA) attendance as part of the sentence. In scenario 1B, the judge doubts the

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<sup>13</sup> E.g., Francis X. Shen et al., *Sorting Guilty Minds*, 86 N.Y.U. L. REV. 1306 (2011); Owen D. Jones et al., *Detecting Mens Rea in the Brain*, 169 U. PA. L. REV. 1 (2020); Matthew R. Ginther et al., *The Language of Mens Rea*, 67 VAND. L. REV. 1327 (2014).

<sup>14</sup> E.g., Alexandra O. Cohen et al., *When Does a Juvenile Become an Adult? Implications for Law and Policy*, 88 TEMP. L. REV. 769 (2016); Francis X. Shen et al., *Justice for Emerging Adults after Jones: The Rapidly Developing Use of Neuroscience to Extend Eighth Amendment Miller Protections to Defendants Ages 18 and Older*, 97 N.Y.U. L. REV. 101 (2022).

<sup>15</sup> E.g., N.J. Schweitzer & Michael J. Saks, *Neuroimage Evidence and the Insanity Defense*, 29 BEHAV. SCIS. & L. 592 (2011); Walter Sinnott-Armstrong & Ken Levy, *Insanity Defenses*, in THE OXFORD HANDBOOK OF PHILOSOPHY OF CRIMINAL LAW 299 (John Deigh & David Dolinko eds., 2011).

<sup>16</sup> E.g., Deborah W. Denno, *The Myth of the Double-Edged Sword: An Empirical Study of Neuroscience Evidence in Criminal Cases*, 56 B.C. L. REV. 493 (2015); Martha J. Farah et al., *Functional MRI-Based Lie Detection: Scientific and Societal Challenges*, 15 NATURE REV. NEUROSCIENCE 123 (2014); David L. Faigman et al., *Group to Individual (G2i) Inference in Scientific Expert Testimony*, 81 U. CHI. L. REV. 417 (2014); John B. Meixner, Jr., *Modern Sentencing Mitigation*, 116 NW. U. L. REV. 1395 (2022) (examining the effect of neuroscience evidence at sentencing).

<sup>17</sup> E.g., Matthew R. Ginther et al., *Parsing the Behavioral and Brain Mechanisms of Third-Party Punishment*, 36 J. NEUROSCIENCE 9420 (2016) (providing a blueprint of the brain mechanisms by which neutral third parties render punishment decisions).

<sup>18</sup> *Mission of the Research Network*, MACARTHUR FOUND. RSCH. NETWORK ON L. & NEUROSCIENCE, <https://www.lawneuro.org/mission.php> (last visited Nov. 9, 2022).

efficacy of AA and instead opts for a chemical intervention and orders the compulsory administration of a drug called Antabuse,<sup>19</sup> which he believes will be more effective. The drug interferes with the metabolism of alcohol and causes an array of unpleasant side effects when alcohol is consumed, including flushing of the face, headache, nausea, vomiting, weakness, blurred vision, and sweating.<sup>20</sup>

Defendant Two was convicted of a sex crime against a child under twelve years of age. The defendant does not have a pedophilia diagnosis or any other diagnosable mental illness but is a repeat sex offender. In scenario 2A, in addition to a lengthy prison sentence, the judge imposes mandated intensive behavioral therapy, including plethysmograph and Abel testing. Both tests are designed to measure the subject's arousal to sexual stimuli, which can then be used to help the subject improve the regulation of his sexual desires.<sup>21</sup> In scenario 2B, the judge, having heard about recent (and currently unrealized) advances that have eliminated virtually all of the physical side effects,<sup>22</sup> mandates chemical castration of the defendant in addition to a lengthy prison sentence.<sup>23</sup> Chemical castration significantly reduces the activity of testosterone in a person, thereby significantly lowering their sexual drive.<sup>24</sup>

Defendant Three was convicted of assault and battery. The defendant reacted violently after the victim complained that the defendant had cut in line at a movie theater. The defendant has a long history of grossly disproportionate aggressive outbursts in response to minor provocations, but the defendant does not have a diagnosable mental illness. In scenario 3A, in addition to a prison sentence, the judge orders the defendant to attend anger management classes to learn effective coping strategies to deal with his aggression. In scenario 3B, in place of classes, the judge orders the administration of a drug he read about in the *New England Journal of Medicine*, a 5-HT<sub>1</sub> agonist that significantly reduces aggressive behavior

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<sup>19</sup> Antabuse is a trade name for disulfiram. See *Disulfiram*, MEDLINEPLUS, <https://medlineplus.gov/druginfo/meds/a682602.html> (Aug. 15, 2017).

<sup>20</sup> This is not a complete list of the side effects caused by the current form of Antabuse. The more severe side effects have not been included in this hypothetically improved form of the drug. For a full list of current side effects, see *id.*

<sup>21</sup> See *United States v. Cope*, 527 F.3d 944, 949 n.1 (9th Cir. 2008) (citing *United States v. Weber*, 451 F.3d 552, 562, 567 (9th Cir. 2006)) (discussing the testing procedures involved in both plethysmograph testing and Abel testing).

<sup>22</sup> In fact, the most common drug currently used for the procedure is medroxyprogesterone acetate (MPA), which has severe side effects with prolonged use, including an irreversible drop in bone density, diabetes mellitus, pulmonary embolisms, and depression. Stinneford, *supra* note 8, at 561. For an excellent discussion of the dangers of the procedure and a critique of the current laws, see generally *id.*

<sup>23</sup> At least eight states currently have some form of chemical castration statute for sex offenders. See sources cited *supra*, note 8.

<sup>24</sup> Stinneford, *supra* note 8, at 561; see also T. Howard Stone et al., *Sex Offenders, Sentencing Laws, and Pharmaceutical Treatment: A Prescription for Failure*, 18 BEHAV. SCIS. & L. 83, 96–97 (2000) (discussing the effects of MPA on sexual desire and behavior).



when taken daily by increasing the activity of serotonin, a neurotransmitter, in the brain.<sup>25</sup>

The following table summarizes the six scenarios:

TABLE 1

DEFENDANT	CRIME	DIAGNOSED MEDICAL CONDITION	INTERVENTION
Defendant 1	DUI	Alcoholism	<b>1A:</b> Alcoholics Anonymous
			<b>1B:</b> Antabuse administration
Defendant 2	Sex crime against a child less than twelve years of age	None	<b>2A:</b> Behavioral therapy
			<b>2B:</b> Chemical castration
Defendant 3	Assault and battery	None	<b>3A:</b> Anger management classes
			<b>3B:</b> 5-HT <sub>1</sub> agonist administration

#### B. *Medical Therapy, Cognitive Enhancement, and the In-Between*

Under traditional approaches, these six interventions would be classified as either a medical treatment or as cognitive enhancement with the classification based upon the principle that, “[t]herapy treats disease and enhancement improves normal abilities.”<sup>26</sup> A drug to alleviate the symptoms of schizophrenia, for example, would be medical treatment, while a stimulant that increases mental functioning would constitute a cognitive

<sup>25</sup> Animal research suggests that administration of a 5-HT<sub>1</sub> agonist (the drug that increases the activity of the neurotransmitter serotonin on a specific type of serotonin receptor) may significantly reduce displays of aggressive behavior. Solomon Umukoro et al., *Aggressive Behavior: A Comprehensive Review of Its Neurochemical Mechanisms and Management*, 18 *AGGRESSION & VIOLENT BEHAV.* 195, 201 (2013).

<sup>26</sup> Anjan Chatterjee, Opinion, *Cosmetic Neurology: For Physicians the Future Is Now*, 6 *VIRTUAL MENTOR* 367, 368 (2004).

enhancement.<sup>27</sup> As would be expected, both medical treatments and cognitive enhancements raise legal and ethical issues that have caused spirited legal and medical debates over their appropriate uses.<sup>28</sup>

The mandatory interventions in the six scenarios, however, pose difficult questions in part because they fall somewhere on the spectrum between medical treatment and cognitive enhancement. Two of our defendants do not have a “disease” for the therapy to treat. The third, Defendant One, has alcoholism, which is not universally considered a disease<sup>29</sup> and at a minimum is treated in a categorically different manner than traditionally conceived diseases such as leukemia.<sup>30</sup> Nor do our interventions properly qualify as enhancements since our defendants do not have “normal” functioning as to the targeted trait or characteristic. None of the interventions in our scenarios are aimed at making the defendant *better* than average through improvements, only *closer* to average. Indeed, the interventions are targeted at defusing a trait or characteristic that prevents the defendant from being able to follow societal and legal rules.

One of the first cases in the United States to result in a sentence including chemical castration involved just such a defendant. In that case, the Michigan Court of Appeals described the defendant as “like a furnace which overheats a house if the thermostat is set too high”<sup>31</sup> and saw the use of chemical castration as a way to “reset” the thermostat.<sup>32</sup>

Rather than shoehorn the interventions into the category of medical treatment or cognitive enhancement, this Article proposes recognizing a

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<sup>27</sup> One survey showed that almost seven percent of U.S. college students have taken stimulants in the hopes of achieving higher grades. Henry Greely et al., *Towards Responsible Use of Cognitive-Enhancing Drugs by the Healthy*, 456 NATURE 702, 702 (2008).

<sup>28</sup> See, e.g., Cauley, *supra* note 8, at 494–95 (“Chemical castration . . . could serve all four of the sentencing goals of our modern penal system. Similar to drug-addicted criminals who undergo therapeutic drug treatment while incarcerated, it seems evenhanded to offer sex criminals any available corrective or rehabilitative drug treatments.”). *But see* Greely, *supra* note 9, at 1105 (“[W]e need to be vigilant to avoid the over-enthusiastic adoption of unproven new ‘treatments’—practiced in the brains of, at best, unsympathetic and, at worst, despised people.”). See generally Emily R. Murphy, *Paved with Good Intentions: Sentencing Alternatives from Neuroscience and the Policy of Problem-Solving Courts*, 37 LAW & PSYCH. REV. 83, 85 (2013) (highlighting “new neuroscience treatments” that could be used in criminal justice settings, and the “risks of their misuse and potential harms to constitutional rights, individual autonomy, and ultimately institutional competency and legitimacy”).

<sup>29</sup> See, e.g., Matt Dean, Comment, Manning, Powell, and the *Habitual Misunderstanding of Addiction*, 94 ST. JOHN’S L. REV. 587, 610 (2020) (noting that although “[a]ddiction is now commonly spoken of as a disease rather than a moral failing,” there is still a moral stigma surrounding it, so much so that “[e]ven recovering alcoholics, for whom the disease model is the very foundation of their treatment efforts, often speak of addiction in terms of ‘moral inventory,’ . . . and ‘character defects’”).

<sup>30</sup> See James R. McKay & Susanne Hiller-Sturmhöfel, *Treating Alcoholism as a Chronic Disease: Approaches to Long-Term Continuing Care*, 33 ALCOHOL RSCH. & HEALTH 356, 356 (2011) (describing alcoholism interventions such as “group counseling [or] cognitive behavioral therapy” designed to “reduce the need for additional treatment episodes”).

<sup>31</sup> *People v. Gauntlett*, 352 N.W.2d 310, 313 (Mich. Ct. App. 1984) (vacating a sentence of chemical castration for lack of authority because the state did not have a chemical castration statute in place).

<sup>32</sup> *Id.*

third category in between the two. This approach results in a more accurate conceptualizing of the interventions, which, in turn, allows a more nuanced legal approach to evaluating them. In particular, it helps disassociate these new interventions from the legal baggage that accompanies the medical treatment and enhancement paradigms which do not capture what these interventions aim to do. For example, when viewing an intervention as a medical treatment, the focus, appropriately, is almost exclusively on the benefit to the defendant, with society's benefit only factored in the extreme instances when a threat is posed to others. Acknowledging this middle ground between treatment and enhancement allows for more robust consideration of the benefit to society, without losing focus on the individual in the way that a pure punishment paradigm endangers.

The spectrum of interventions—ranging from medical treatment on one end, cognitive enhancement on the other end, and a category in between—is best illustrated by comparison to an example from the physical domain. Human growth hormone (HGH) is a naturally occurring hormone released by the pituitary gland that plays an important role in growth and development and in a range of “physiologic processes including skeletal and organ growth, calcium homeostasis, lipolysis, and the regulation of lean body mass.”<sup>33</sup> HGH has been administered in settings that would parallel each of our categories. Some individuals with too-low HGH levels suffer from a medical condition called Growth Hormone Deficiency (GHD) that can lead to short stature and long-term health consequences.<sup>34</sup> External recombinant HGH administration is one medical treatment option that helps individuals reach subclinical height (within two standard deviations of the population average) and can alleviate other symptoms.<sup>35</sup> In the mental health field, the equivalent would be someone suffering from a medical condition such as schizophrenia or bipolar disorder where drug therapy on a daily basis enables them to function.

Some individuals, however, have below average levels of HGH, but not low enough to meet the traditional clinical diagnosis of GHD.<sup>36</sup> Nonetheless, some of these individuals choose to take HGH when young to allow them to reach the average or above-average population height range.<sup>37</sup> Studies

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<sup>33</sup> David M. Siebert & Ashwin L. Rao, *The Use and Abuse of Human Growth Hormone in Sports*, 10 SPORTS HEALTH 419, 419–21 (2018) (discussing the effect of age on the efficacy of HGH treatment in dwarfism).

<sup>34</sup> Michael B. Ranke & Jan M. Wit, *Growth Hormone—Past, Present and Future*, 14 NATURE REVIEWS ENDOCRINOLOGY 285, 291–92 (2018) (discussing the clinical presentation of GHD); Jeanina Idriceanu et al., *Efficacy of HGH Treatment in Pituitary Dwarfism—Age Does Matter*, 32 ENDOCRINE ABSTRACTS ¶ P903 (2013) (discussing the effect of age on the efficacy of HGH treatment in dwarfism).

<sup>35</sup> Idriceanu et al., *supra* note 34.

<sup>36</sup> Julia G. Halas & Adda Grimberg, *Dilemmas of Growth Hormone Treatment for GH Deficiency and Idiopathic Short Stature: Defining, Distinguishing, and Deciding*, 72 MINERVA PEDIATRICA 206, 210 (2020).

<sup>37</sup> *Id.* at 218 fig.2.

suggest that in the United States physical height is correlated with social esteem, leader emergence, and workplace performance.<sup>38</sup> This usage of HGH is most akin to our middle category—treatment is not medically or clinically necessary, but can provide benefits by removing impediments that can substantially assist the individual to better integrate into society.

Still other individuals have normal levels of HGH but choose to take HGH treatments in order to reach artificially high levels of muscle growth.<sup>39</sup> This usage clearly falls into the enhancement category: the individual is already functioning at a level that allows them to participate fully in society but wants to enhance their abilities or attributes further. Whether such enhancements should be allowed or banned in arenas such as sport or academia is beyond the scope of this Article, which focuses on treatment directed at enabling the person to participate in everyday affairs that would otherwise be impossible or difficult.

The defendants in the six scenarios all fall within the middle category between medical therapy and cognitive enhancement. They do not have a clinical diagnosis of a mental illness. Nor are the interventions properly defined as cognitive enhancements because the defendants are not functioning at a level where they are able to fully integrate into society. Instead, they have an impediment that is preventing them from reaching their full potential. To return to the Michigan Court of Appeals' analogy, the goal is to reset the thermostat; in other words, to remove an impediment that is keeping the defendant from being able to function in society.<sup>40</sup>

### C. *The Current Law of Forced Medication*

Refining the categories for addressing different types of interventions allows for a more productive discussion and analysis but does not in and of itself answer how forced interventions aimed at this middle ground should be legally addressed. As matters stand, any challenge to the mandated interventions in our scenarios would likely require the imperfect adaptation of the Supreme Court's cases addressing forced administration of antipsychotic medications or cruel and unusual punishments. As will be seen, the legal tools currently in use are ill equipped to deal with the rapidly changing world of behavioral, neurological, and pharmaceutical innovations that invariably will make their way into the criminal justice system.

In 1990, the Supreme Court established the legal standard for forced administration of antipsychotic medication to prisoners in *Washington v. Harper*.<sup>41</sup> The State of Washington forcibly medicated Walter Harper with

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<sup>38</sup> Timothy A. Judge & Daniel M. Cable, *The Effect of Physical Height on Workplace Success and Income: Preliminary Test of a Theoretical Model*, 89 J. APPLIED PSYCH. 428, 428 (2004).

<sup>39</sup> Brian P. Brennan et al., *Human Growth Hormone Abuse in Male Weightlifters*, 20 AM. J. ON ADDICTIONS 9, 11–12 (2010) (discussing weightlifters' abuse of HGH).

<sup>40</sup> *People v. Gauntlett*, 352 N.W.2d 310, 313 (Mich. Ct. App. 1984).

<sup>41</sup> 494 U.S. 210 (1990).

antipsychotic medication following a robbery conviction and a diagnosis of manic-depressive disorder.<sup>42</sup> Under the State's policy, the initial decision to medicate was not made by a judge, but rather in a hearing before a special committee consisting of a psychiatrist, a psychologist, and the Associate Superintendent of the medical center.<sup>43</sup> Harper was entitled to notice and had access to a lay advisor who "understands the psychiatric issues," but he was not provided a lawyer.<sup>44</sup> Under the State's procedure, Harper could not be medicated during the hearing process and had the right to appeal to the superintendent and to seek judicial review through a personal restraint petition or extraordinary writ.<sup>45</sup>

The Supreme Court found that the policy satisfied both the substantive and procedural requirements of the Due Process Clause of the Fourteenth Amendment.<sup>46</sup> In doing so, the Court recognized that Due Process provides prisoners a significant liberty interest in refusing antipsychotic medication.<sup>47</sup> The Court held that courts can only require administration of antipsychotic drugs when "the inmate is dangerous to himself or others and the treatment is in the inmate's medical interest."<sup>48</sup> The Court found that when a mental disability is the "root cause" of the threat posed to the inmate population, the State's interest in decreasing the danger necessarily includes an interest in medically treating the defendant. The Court also found that the policy was appropriately tailored to exclusively apply to mentally ill inmates,<sup>49</sup> and that the procedural mechanisms of the policy were sufficient to ensure that the decisions were neither arbitrary nor erroneous and therefore were commensurate with Due Process.<sup>50</sup> The Court also suggested that having a medical, rather than legal, arbiter in what was primarily a medical decision may better protect the defendant's interests.<sup>51</sup>

In discussing Harper's liberty interest, the Court noted in passing that the drugs could cause an alteration of the "chemical balance in a patient's brain, leading to changes, intended to be beneficial, in his or her cognitive processes."<sup>52</sup> However, the vast majority of the opinion was focused on the appropriateness of the medical intervention based on the strength of the State's justification and the severity and frequency of the drug's *physical*

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<sup>42</sup> *Id.* at 213–14, 217.

<sup>43</sup> *Id.* at 215.

<sup>44</sup> *Id.* at 216–17.

<sup>45</sup> *Id.* at 216.

<sup>46</sup> *Id.* at 211.

<sup>47</sup> *Id.* at 221.

<sup>48</sup> *Id.* at 227 (1990). Two years later, the Court described *Harper's* limitation on states' ability to force prisoners to take antipsychotic medication as requiring "a finding of overriding justification and a determination of medical appropriateness." *Riggins v. Nevada*, 504 U.S. 127, 135 (1992).

<sup>49</sup> *Washington v. Harper*, 494 U.S. at 225–26.

<sup>50</sup> *Id.* at 228.

<sup>51</sup> *Id.* at 231.

<sup>52</sup> *Id.* at 229.

effects.<sup>53</sup> While the Court gave substantial attention to both the American Psychiatric Association and the American Psychological Association views about the dangers of the *physical* side effects, the majority did not address the cognitive side effects beyond the one sentence.<sup>54</sup>

Thirteen years later, in *Sell v. United States* the Court was confronted with the issue of whether the federal government could forcibly medicate a defendant for the sole purpose of restoring him to competency to stand trial.<sup>55</sup> The defendant, a former dentist, was indicted on fifty-six counts of mail fraud, six counts of Medicaid fraud, one count of money laundering, and the attempted murder of the arresting FBI agent.<sup>56</sup> The defendant, who believed that “Government officials were trying to suppress his knowledge about events in Waco, Texas, and had sent him to Alaska to silence him,” had a long history of mental illness and was believed to suffer from either delusional disorder or schizophrenia.<sup>57</sup> A magistrate judge granted the government’s request to order forced medication based on two grounds. First, the medication was necessary to treat the mental illness that was causing Sell to pose a danger to himself and others.<sup>58</sup> Second, the medication was necessary to restore him to competency to stand trial.<sup>59</sup> As provided by the medical review policies, the defendant appealed the magistrate’s holding to the district court.<sup>60</sup> The district court held that, while the finding of dangerousness was clearly erroneous, involuntary medication was justified to restore Sell to competency to stand trial.<sup>61</sup>

After a divided Eighth Circuit panel affirmed the district court decision,<sup>62</sup> the Supreme Court vacated it but declined to find that forced medication for the sole purpose of competency is categorically unconstitutional.<sup>63</sup> Rather, the Court held that the Constitution permits involuntary administration of antipsychotics to render a defendant competent only if certain factors are found to exist: the defendant is mentally ill, he faces a serious criminal charge, the treatment is medically appropriate, the treatment is substantially unlikely to have side effects that may undermine the fairness of the trial, no less intrusive alternatives exist, and

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<sup>53</sup> *Id.* at 229–30.

<sup>54</sup> *Id.*

<sup>55</sup> 539 U.S. 166, 169 (2003).

<sup>56</sup> *Id.* at 170.

<sup>57</sup> *Id.* at 171.

<sup>58</sup> *Id.* at 171–72.

<sup>59</sup> *Id.*

<sup>60</sup> *See* *United States v. Sell*, No. 4:97-CR-290 DJS, 2001 WL 35838455, at \*2–\*3 (E.D. Mo. Apr. 4, 2001).

<sup>61</sup> *Id.* at \*15, \*22 (finding “[t]he record does not indicate that defendant has posed a danger to himself or others during the period of his institutionalization” but that forced administration of antipsychotic drugs “represent[s] the only viable hope of rendering defendant competent to stand trial”).

<sup>62</sup> *United States v. Sell*, 282 F.3d 560, 562 (8th Cir. 2002).

<sup>63</sup> *Sell v. United States*, 539 U.S. at 174, 186.

the treatment significantly furthers an important governmental interest.<sup>64</sup> While the Court reiterated the existence of a liberty interest in “avoiding the unwanted administration of antipsychotic drugs,” it did not reference the drug’s effects on cognition other than stating that the side effects must not undermine fairness at trial.<sup>65</sup>

Christopher Slobogin argues the Court’s jurisprudence in *Harper* and *Sell*, taken together, allows three exceptions to a defendant’s right to refuse medication: when the defendant is (1) a danger to self or others, (2) incompetent to make treatment decisions, or (3) charged with a serious crime.<sup>66</sup> Slobogin contends these exceptions come close to swallowing the right altogether.

## II. POSSIBLE LEGAL REGIMES FOR EVALUATING MANDATED INTERVENTIONS

### A. *Current Alternatives*

Using the Court’s reasoning in either *Harper* or *Sell*, the current constitutional tests are inadequate to evaluate any of the three defendants in the scenarios and whether they can be subjected to the mandated interventions.<sup>67</sup> First, the *Harper* and *Sell* standards require that the defendant is found to be “mentally ill.”<sup>68</sup> In our scenarios, however, none of the defendants have a clinical diagnosis of mental illness.<sup>69</sup> While there is an increasing movement toward treating substance abuse, such as alcoholism, as a medical condition,<sup>70</sup> it would be alarming if a condition that is not universally acknowledged as a disease could place a defendant at risk of forced medication.<sup>71</sup> Without an alternative to *Harper* and *Sell*, however, judges may move toward either the “medicalization” of crime, as they accept stretched or strained definitions of mental illness to encompass defendants

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<sup>64</sup> *Id.* at 179.

<sup>65</sup> *Id.* at 178–79.

<sup>66</sup> See Christopher Slobogin, Commentary, *Sell’s Conundrums: The Right of Incompetent Defendants to Refuse Anti-Psychotic Medication*, 89 WASH. U. L. REV. 1523, 1525–26 (2012) (discussing the effect of *Sell* on the government’s ability to forcibly medicate incompetent defendants).

<sup>67</sup> The hypothetical scenarios are described *supra*, Section I.A.

<sup>68</sup> See *supra* notes 49, 64, and accompanying text.

<sup>69</sup> Furthermore, one limitation of requiring a clinical diagnosis is that clinical diagnoses are developing all the time. The lack of a readily identifiable diagnosis—or a diagnosis that is socially understood as legitimate—does not necessarily mean a person is neurotypical.

<sup>70</sup> Josiah D. Rich et al., Opinion, *Medicine and the Epidemic of Incarceration in the United States*, 364 NEW ENG. J. MED. 2081, 2081 (2011) (“Much of the increase in the prisoner census is a result of the ‘War on Drugs’ and our country’s failure to treat addiction and mental illness as medical conditions.”); see also AM. PSYCHIATRIC ASS’N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS (5th ed. 2013), 490–497 (including Alcohol Use Disorder in the substance-related and addictive disorders category).

<sup>71</sup> For discussion of how alcoholism is regarded differently than traditionally conceived diseases, see *supra* notes 29–30 and accompanying text.

in need of treatment, or an outright denial of the interventions without assessing the potential positive impact on the defendant.<sup>72</sup> Without a more principled framework that properly acknowledges the competing interests, any normatively desirable outcome from this system would merely be the result of chance.

In *Harper*, several justices argued for a broad understanding of the liberty interest to refuse antipsychotic medication. In his dissent, Justice Stevens criticized the majority for “ignor[ing]” the dual dimensions of both a physical *and* intellectual liberty interest to avoid unwanted antipsychotic drugs.<sup>73</sup> By arguing that liberty encompasses both a physical and intellectual prong, Justice Stevens suggested that the majority opinion provided too little protection for the latter.<sup>74</sup> If, as Justice Stevens argued, the law should be concerned about more than the physical side effects of an intervention and the effects on a fair trial, an alternative legal mechanism to a substantive due process liberty interest in the right to be free from antipsychotic medication is needed.

Even if the *Harper-Sell* framework were extended to defendants who lack clinical diagnoses, it would still do a poor job protecting defendants’ interests, other than freedom from physical side effects. The cases’ focus on “medical appropriateness”<sup>75</sup> is ill-suited for deciding what degree of forced behavior alteration in a defendant is inappropriate, since not all defendants suffer from a medical disease, as the defendants in the scenarios demonstrate. What is “medically appropriate” for a person without an illness? A court could easily interpret this as allowing one of two extremes: either no interventions are ever allowed for defendants lacking relevant diagnoses, or that any intervention that does not harm the person’s physical health is permissible. As long as the procedural safeguards are met, either interpretation could pass the *Harper-Sell* framework. In *Harper*, the effect of an antipsychotic on cognition was cited as a reason why the state should have to meet the Court’s test, but cognition was not included as a factor within the test itself, and *Sell* did not change this.<sup>76</sup> This poses a problem for

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<sup>72</sup> See Stephen J. Morse, *Blame and Danger: An Essay on Preventive Detention*, 76 B.U. L. REV. 113, 129 (1996) (warning against the dangers of “medicalizing” social problems and then granting the state power to fix the problems).

<sup>73</sup> *Washington v. Harper*, 494 U.S. 210, 237 (1990) (Stevens, J., dissenting).

<sup>74</sup> *Id.* at 237–38 (“[B]ut [the majority] then virtually ignores the several dimensions of that liberty. They are both physical and intellectual. . . . And when the purpose or effect of forced drugging is to alter the will and the mind of the subject, it constitutes a deprivation of liberty in the most literal and fundamental sense.”).

<sup>75</sup> *Sell v. United States*, 539 U.S. 166, 183 (2003); *Harper*, 494 U.S. at 222 (majority opinion) (emphasizing the importance of “ensur[ing] that the treatment in question will be ordered only if it is in the prisoner’s medical interests”).

<sup>76</sup> *Harper*, 494 U.S. at 221–22; see *Sell*, 539 U.S. at 166, 178 (2003) (reaffirming only a narrow liberty interest in the right to refuse antipsychotic medication and never discussing the cognitive effects of the drugs other than to stipulate that the drugs cannot be administered if their side effects would undermine the fairness of the trial).



scenarios like those contemplated in this Article where the interventions do not cause physical side effects. Because sex offenders pose a danger to others, for example, chemical castration could be deemed constitutional under *Harper* and *Sell* so long as the proper procedure is followed, without requiring a court to evaluate the degree to which the intervention would alter the defendant's character, how they would come to view themselves as a person, or how they think.

Several alternatives have been proposed to better protect the intellectual prong that Justice Stevens argued should be encompassed within a broader understanding of the liberty interest. One proposal is to include a First Amendment right to "freedom of mind" or "freedom of thought," which had been recognized by some lower courts in deciding forced medication cases prior to *Harper* and *Sell*.<sup>77</sup> The Center for Cognitive Liberty and Ethics (CCLE) has also advocated for this approach as a more effective means of protecting the actual liberty interest at stake.<sup>78</sup> The Supreme Court, however, has never invoked freedom of thought in its forced medication cases, choosing instead to rely on the substantive due process right to be free from unwanted medication, even when the drugs in question target the defendant's psychological functioning.<sup>79</sup>

Additionally, while closer to the mark than the other alternatives, a "freedom of thought" conceptualization still misses the nail because it fails to offer any meaningful way to measure the intrusiveness of an intervention. *Any* intervention interferes with "freedom of thought" to an extent. For example, taking ibuprofen lessens the likelihood of an individual thinking about their sore back, and an antipsychotic certainly interferes with an individual's cognitive processes, albeit in what most would consider a constructive way. More on point, mandatory counseling interferes with freedom of thought, but a majority of Americans support this type of judicial intervention.<sup>80</sup> Overall, this approach seems well suited for the medical intervention setting but ill-suited for the middle ground between

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<sup>77</sup> See, e.g., *Bee v. Greaves*, 744 F.2d 1387, 1393–94 (10th Cir. 1984) (holding that there is implicit protection of the "capacity to produce ideas" within the First Amendment and that antipsychotics affect this capacity); *Scott v. Plante*, 532 F.2d 939, 946 (3d Cir. 1976) (finding that drugs affecting mental processes could infringe the defendant's constitutional rights).

<sup>78</sup> See CTR. FOR COGNITIVE LIBERTY & ETHICS, THREATS TO COGNITIVE LIBERTY: PHARMACOTHERAPY AND THE FUTURE OF THE DRUG WAR 15 (2004), available at <https://www.yumpu.com/en/document/read/23096785/pharmacotherapy-2004-center-for-cognitive-liberty-ethics> (stating that forced medication imperils "freedom of thought" and "cognitive liberty"). See also Blitz, *infra* note 81, for a comprehensive and compelling case for recognizing a "freedom of mind" in the First Amendment.

<sup>79</sup> See generally *Harper*, 494 U.S. 210; *Riggins v. Nevada*, 504 U.S. 127, 133–35 (1992); *Sell*, 539 U.S. at 177–80, 186; see also Rodney J.S. Deaton, *Neuroscience and the In Corpore-ated First Amendment*, 4 FIRST AMEND. L. REV. 181, 183 (2006) (discussing the Court's jurisprudence and how it had never mentioned the Freedom of Speech Clause in forced medication cases, always preferring the Fifth Amendment's Due Process Clause).

<sup>80</sup> See PRINCETON SURVEY, *supra* note 5, at 2.

medical treatment and cognitive enhancement that this Article explores and which new interventions are targeting. Operating in this middle ground, a focus on freedom of thought seems to invite either the medicalization of crime or the prohibition of any intervention, no matter how slight the effect on the defendant or how great the State interest. While this approach is defensible, it leaves on the table societally beneficial interventions that this Article's proposed test would allow while still building in safeguards for the individual.

Another proposed alternative relies on the Eighth Amendment's prohibition of "cruel and unusual" punishment.<sup>81</sup> Several scholars, for example, have argued that the chemical castration statutes currently in use violate the Eighth Amendment,<sup>82</sup> although to date no court has struck down any of the statutes.<sup>83</sup> The Supreme Court has invoked the Cruel and Unusual Punishment Clause sparingly in the twentieth century in striking down punishments based on their nature.<sup>84</sup> The two most notable exceptions invoked the Eighth Amendment to hold that a State cannot revoke the citizenship of a defendant even for a capital offense,<sup>85</sup> and that a defendant may not be sentenced to hard and painful labor with permanent official surveillance afterward.<sup>86</sup> Reliance on expansion of the Cruel and Unusual Punishment Clause to reach these categories of cases thus seems highly unlikely.

More fundamentally, the principles the Court considers in weighing whether a punishment is cruel and unusual does not probe many of the concerns that these interventions would raise because, much like the Court's reasoning in *Harper* and *Sell*, they focus too narrowly on physical pain. The Court evaluates a punishment under the Cruel and Unusual Punishment Clause by asking "(1) whether it violates the 'dignity of man' . . . ; (2) whether it violates 'evolving standards of decency'; (3) whether it involves the 'unnecessary and wanton infliction of pain'—that is, pain [unrelated] to . . . retributive, deterrent, incapacitative[,] or rehabilitative

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<sup>81</sup> See generally Marc Jonathan Blitz, *Freedom of Thought for the Extended Mind: Cognitive Enhancement and the Constitution*, 4 WIS. L. REV. 1049 (2010) (arguing for a First Amendment "freedom of mind" right as a limit on state power and as the basis for an individual right to cognitive enhancement); Ginther et al., *supra* note 17 (providing a blueprint of the brain mechanisms by which neutral third parties render punishment decisions); see also Greely, *supra* note 9, at 1132 (noting that mandatory treatments used to reduce or prevent criminal behavior could be challenged under the Eighth Amendment).

<sup>82</sup> See, e.g., Stinneford, *supra* note 8, at 578–82, 597–99; Haley A. Smith, Comment, *Common Enemy and Political Opportunity Leave Archaically Modern Sentencing Unchecked: The Unconstitutionality of Louisiana's Chemical Castration Statute*, 59 LOY. L. REV. 211, 217 (2013) (stating that most scholars have challenged the constitutionality of chemical castration statutes under the Eighth Amendment).

<sup>83</sup> See, e.g., Stinneford, *supra* note 8, at 578–82; Smith, *supra* note 82, at 217.

<sup>84</sup> The Court, of course, has used the Eighth Amendment far more readily in dictating procedures to be used for the death penalty. See, e.g., *Bucklew v. Precythe*, 139 S. Ct. 1112 (2019) (denying a petitioner's claim that Missouri's lethal injection procedures constitute cruel and unusual punishment).

<sup>85</sup> *Trop v. Dulles*, 356 U.S. 86 (1958).

<sup>86</sup> *Weems v. United States*, 217 U.S. 349 (1910).

goals; and (4) whether it involves ‘torture’ or ‘barbarous’” means.<sup>87</sup> While interventions that forcibly alter a defendant’s behavior can be viewed as violating “the dignity of man,” punishments that are typically deemed “cruel and unusual” are those meant to be punitive and where the pain is a desired part of the punishment. John Stinneford, for example, compellingly argues that chemical castration is cruel because it represents an attitude that the suffering of the person who is being punished is either unimportant or is something to be enjoyed.<sup>88</sup> The interventions at issue in the scenarios, by contrast, are being cast by the State as for the benefit of not only society but also the defendant (and since the drugs in the scenarios are posited to have evolved to having no significant physical side effects, they would not be cruel and unusual in the traditional sense, unlike current iterations of chemical castration, which may be). Furthermore, any harm that the interventions inflict would not be readily apparent to the naked eye, making it so even the most drastic intervention likely would not meet the subjective deliberate indifference prong of the Court’s test for cruel and unusual punishment in an institutional setting.<sup>89</sup> Lastly, the Eighth Amendment approach also has the disadvantage of not allowing express consideration of the medical and behavioral purposes that the Court has found to be relevant under the Due Process clause and seems to prefer for these types of cases.<sup>90</sup>

### B. *The Personality Integrity Test*

A third alternative is to breathe life into the intellectual prong of the substantive liberty interest recognized in Justice Stevens’s dissent in *Harper*. This approach accounts for the Eighth Amendment’s “human dignity” consideration, as well as the First Amendment’s “freedom of mind” interest, but does so more directly through the Due Process Clause by finding a substantive liberty interest in “personality integrity.” Instead of trying to adapt case law or amendments that do not fully fit or vindicate the interests

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<sup>87</sup> Stinneford, *supra* note 8, at 563–64 (footnotes omitted).

<sup>88</sup> *Id.* at 566.

<sup>89</sup> *Farmer v. Brennan*, 511 U.S. 825, 837 (1994) (holding that the Eighth Amendment is violated when prisons do not take reasonable steps to ensure a prisoner’s safety “and, as a result, he experience[s] severe pain or suffering without any penological justification”). Scholars have argued that solitary confinement violates the Eighth Amendment. See Federica Coppola, *The Brain in Solitude: An (Other) Eighth Amendment Challenge to Solitary Confinement*, 6 J.L. & BIOSCIENCES 184, 214–18 (2019). One hurdle, however, is that the harm is not readily apparent to prison guards or wardens—the damage is to the structural and functional integrity of the brain, which is not obvious to physical observation and so may not amount to subjective deliberate indifference. *Id.*

<sup>90</sup> The Court has shown a willingness to consider neuroscience evidence in its Cruel and Unusual Punishment Clause jurisprudence. See, e.g., *Roper v. Simmons*, 543 U.S. 551, 569–71 (2005) (referencing neuroscience evidence in support of finding the death penalty inappropriate for juveniles); *Graham v. Florida*, 560 U.S. 48, 68 (2010) (citing “brain science” to find the imposition of life without parole to juveniles for nonhomicide offenses to be “cruel and unusual” under the Eighth and Fourteenth Amendments because juveniles lack fully mature brains, which affects behavior and impulse control).

at stake, recognizing a liberty interest would allow for a direct and more productive means of confronting both the dangers and benefits that arise in a world witnessing astonishing advances in neuroscience and our understanding of the interconnection between the brain and behavior.

The *Merriam-Webster* dictionary defines personality as “the complex of characteristics that distinguishes an individual” or “a set of distinctive traits and characteristics.”<sup>91</sup> Similarly, the APA Dictionary of Psychology defines personality, in part, as “the enduring configuration of characteristics and behavior that comprises an individual’s unique adjustment to life, including major traits, interests, drives, values, self-concept, abilities, and emotional patterns.”<sup>92</sup> While this Article does not presume to delve into the various theories of personality, nearly all personality models stipulate that there is a hierarchical structure to the traits that collectively constitute a personality.<sup>93</sup> As such, there is a range of traits varying from the relatively specific to the relatively abstract.<sup>94</sup> For example, the predominant dimensional models of general personality structure are the five-factor model and its variants.<sup>95</sup> While the naming varies, these “Big Five” factors tend to be grouped as neuroticism, agreeableness, conscientiousness, extraversion, and openness.<sup>96</sup> These, in turn, can be broken down into specific response-level traits. In sum, the personality hierarchy can be thought of as building from specific response level, to habitual response level, to trait level, to factor level.<sup>97</sup>

A legal test centered on personality integrity would look at how a proposed intervention would affect these five basic personality traits, while taking into account the State’s interest in the intervention. This Article proposes a four-part balancing test: (1) the existence of empirical data showing that the intervention effectively reduces recidivism for the specific crime or specific class of crime in question; (2) the seriousness of the offense and the substantiality of the State’s interest in protecting the public from that class of crime; (3) the side effects of the intervention as assessed by a medical professional; and (4) the effects of the intervention on core personality traits, as assessed by a scientifically recognized model.

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<sup>91</sup> *Personality*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/personality> (last visited Nov. 7, 2022).

<sup>92</sup> *Personality*, APA DICTIONARY OF PSYCHOLOGY, <https://dictionary.apa.org/personality> (last visited Nov. 27, 2022).

<sup>93</sup> Robert F. Krueger & Kristian E. Markon, *The Role of the DSM-5 Personality Trait Model in Moving Toward a Quantitative and Empirically Based Approach to Classifying Personality and Psychopathology*, 10 ANN. REV. CLINICAL PSYCH. 477, 483 (2014).

<sup>94</sup> *Id.*

<sup>95</sup> Thomas A. Widiger et al., *Basic Personality Model*, 21 CURRENT OP. PSYCH. 18, 18 (2018).

<sup>96</sup> See, e.g., Kristian E. Markon, *Hierarchies in the Structure of Personality Traits*, 3 SOC. & PERSONALITY PSYCH. COMPASS 812, 817 (2009).

<sup>97</sup> See Sampo V. Paunonen, *Hierarchical Organization of Personality and Prediction of Behavior*, 74 J. PERSONALITY & SOC. PSYCH. 538, 539 fig.1 (1998).

The “personality integrity” test thus recognizes the importance of certain traits to one’s personality while acknowledging a role for state intervention if an individual’s behavior is dangerous to society and weighs the factors accordingly. For example, an intervention that altered a specific response-level trait or a “Big Five” personality trait in only a minor manner could be mandated based on a lesser state interest, but an intervention that significantly altered a primary factor would require a far more substantial State interest to justify the intervention, and there may be a point where intervention is never justified no matter how great the State interest.<sup>98</sup> For example, as discussed more fully in Part III, an intervention that only affects a person’s propensity to drink alcohol would require far less of a State interest than one that affects a person’s general impulse control and sensation-seeking.<sup>99</sup>

In this way, the test prevents the “destruction of the personality,” which some scholars have likened to the death penalty,<sup>100</sup> while still allowing the benefits of some interventions when the State’s interest is sufficiently substantial and the personality impact sufficiently minor.<sup>101</sup> And by reframing the substantive liberty interest as one anchored in personality integrity, the test centers the debate on what the justice system should be concerned about: the weight of the State’s interest and the degree to which it infringes upon an individual’s core personality.

Furthermore, sentencing guidelines already provide a potential framework to guide the evaluation of the State’s interest. Similar to the guidelines’ current advisory role, they would not be binding on a judge as the proper measure of the State’s interest, but the test could require a judge to properly calculate the guidelines and consider them in weighing this factor. This would make the personality integrity test more administratively feasible and more familiar to the jurists who would have to employ it.

One aspect of the personality integrity test that warrants further explanation is that it does not distinguish between chemical (drug-based) and behavioral interventions. The test uses a unified approach for several reasons. First, the test recognizes that, regardless of whether the intervention

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<sup>98</sup> Indeed, there may be a point at which the trait is too central to be altered regardless of the weight of the State’s interest. Where, and whether, to draw that line, however, is an issue that is beyond the scope of this Article, and it would likely have to be sorted out by the courts and legislature over time.

<sup>99</sup> See *infra* text following note 122.

<sup>100</sup> For example, Henry Greely has likened the destruction of a person’s personality to the death penalty, stating: “A biological organism of the species *Homo sapiens* continues to exist, but it is not the person who began the treatment.” Greely, *supra* note 9, at 1135. The proposed test acknowledges the importance of his point while also recognizing that not all efforts to change personality traits are tantamount to imposing the death penalty. *Id.*

<sup>101</sup> How to draw the line between a core personality trait and a more peripheral one will largely depend on which personality model is adopted. The DSM-5 lent support to dimensional trait theory but included it in a supplemental section, suggesting more research needs to be done. See AM. PSYCHIATRIC ASS’N, *supra* note 70, at 772–74. Exactly what model to adopt requires an in-depth understanding of the science and an evaluation of societal values that is best left to the legislature and is beyond the scope of this Article.

is chemical or behavioral, it is still compulsory and therefore poses an equal affront to the individual's autonomy.<sup>102</sup> Moreover, we tend to intuitively differentiate between chemical and behavioral interventions in part because of the perceived danger of side effects. However, even if the risk of side effects will usually be greater with chemical interventions, the third factor of the test ensures a medical professional will consider potential side effects in all cases.

One similarly may be inclined to distinguish between chemical and behavioral interventions based on likely efficacy. Because one of the key determinants in behavioral therapy's effectiveness is a patient's willingness to participate and try to change their behavior,<sup>103</sup> where the intervention is being mandated, chemical interventions often will be more effective.<sup>104</sup> The superior efficacy of a drug over compulsory behavioral intervention, however, cannot be assumed, as it will always depend on the strength of the science and assumptions behind it; by treating chemical and behavioral interventions under the same balancing test, the efficacy of the intervention is considered directly regardless of whether it is chemical or behavioral.

For example, some scholars have questioned the efficacy of chemical castration in reducing recidivism rates for sex offenders. They argue this not because of any doubt about the procedure's proficiency at lowering the effects of testosterone, which it unquestionably does, but because of an underlying mistaken assumption about the motivations of sex offenders.<sup>105</sup> If, for example, sex offenders are primarily driven by a desire for domination and power, rather than sexual desires, the drug may not lower recidivism rates at all.<sup>106</sup> The first factor of the personality integrity test helps prevent this type of error by requiring empirical support not just for the fact that the drug does what it claims to do chemically, but that it also has an effect on

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<sup>102</sup> Conversely, it could be argued that, as with the forced administration of antipsychotics to mentally ill patients, these interventions actually increase the defendant's long-term autonomy. Elizabeth Bennion, *A Right to Remain Psychotic? A New Standard for Involuntary Treatment in Light of Current Science*, 47 LOY. L.A. L. REV. 251, 263 (2013) ("Because treatment will restore people to their 'right minds' (thus increasing long-term capacities and freedoms), involuntary treatment is seen as promoting rather than impeding autonomy in a broad sense.").

<sup>103</sup> Stefan G. Hofmann et al., *The Efficacy of Cognitive Behavioral Therapy: A Review of Meta Analyses*, 36 COGNITIVE THERAPY & RSCH. 427, 427 (2012) ("In order to achieve [treatment] goal[s], the patient becomes an active participant in a collaborative problem-solving process . . .").

<sup>104</sup> Friedrich Lösel & Martin Schmucker, *The Effectiveness of Treatment for Sexual Offenders: A Comprehensive Meta-Analysis*, 1 J. EXPERIMENTAL CRIMINOLOGY 117, 129–31 (2005) (finding that hormonal interventions were more effective than therapy in reducing sexual recidivism in sex offenders).

<sup>105</sup> See e.g., Cauley, *supra* note 8, at 506 (citing the need to only use chemical castration on sex offenders with pedophilic tendencies); Stinneford, *supra* note 8, at 567–68 (criticizing for lack of efficacy, among other grounds, statutes that do not evaluate whether the defendant suffers from pedophilia or any other mental illness prior to mandating chemical castration).

<sup>106</sup> Pamela K. Hicks, Comment, *Castration of Sexual Offenders*, 14 J. LEGAL MED. 641, 647 (1993); see ANN WOLBERT BURGESS & BRUCE A. BALDWIN, *CRISIS INTERVENTION THEORY AND PRACTICE* 298–307 (1981) (describing different patterns of assault depending on whether anger, power, or sexuality is the offender's dominant psychological component).

recidivism rates for the specific crime or class of crime for which the defendant is convicted.<sup>107</sup> The test thus provides a layer of protection lacking in many of the alternatives by requiring proof of the intervention's efficacy whether chemically or behaviorally based.<sup>108</sup>

Finally, the distinction between behavioral and chemical interventions may blur as technology progresses. The theory underlying Cognitive Behavioral Therapy is that "maladaptive cognitions lead to changes in emotional distress and problematic behaviors."<sup>109</sup> As therapies get better at targeting these "maladaptive cognitions," behavioral interventions may come to more closely resemble chemical interventions and raise many of the same concerns. For example, many behavioral therapies are now using "neurofeedback training" where the patient can watch their brain activity while completing therapeutic tasks and thus change neural functioning.<sup>110</sup> Therefore, as a matter of biology no reason exists to differentiate between chemical and behavioral interventions because, ultimately, any change in behavior reflects a change in the underlying biology producing the behavior.<sup>111</sup>

One additional and potentially compelling argument for distinguishing between the behavioral and chemical interventions needs to be addressed. Perhaps what society really cares about is whether the ultimate decision to "improve" oneself through treatment is voluntary; perhaps the right to the pursuit of happiness implies a right against imposed happiness, or the imposition of any trait.<sup>112</sup> While both forms of interventions are mandatory, the effectiveness of a behavioral intervention is not guaranteed even if attendance and participation can be. The hope, of course, is that by mandating participation the therapy will have some positive effect, regardless of whether the defendant desires it, but it cannot impose the effectiveness the same way that a drug can.<sup>113</sup> Put another way, this may be why altitude training is considered ethical for athletes, but blood doping is not: On some level, we

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<sup>107</sup> To get this empirical proof these interventions will likely have to be offered on a voluntary basis before they can ever be a court-mandated intervention. While this step may delay the adoption of potentially beneficial interventions, a phased adoption of the interventions with close monitoring during the voluntary phase would compile the data necessary to potentially mandate the intervention in the future.

<sup>108</sup> This type of data may be difficult to gather and may delay the implementation of many interventions, but this is only one factor of the balancing test and is a burden best placed on the state.

<sup>109</sup> Hofmann et al., *supra* note 103, at 427.

<sup>110</sup> See, e.g., M.M. Lansbergen et al., *ADHD and EEG-Neurofeedback: A Double-Blind Randomized Placebo-Controlled Feasibility Study*, 118 J. NEURAL TRANSMISSION 275, 278–280 (2011) (conducting a placebo-controlled study testing the efficacy of electroencephalography (EEG) neurofeedback on attention-deficit/hyperactivity disorder (ADHD)).

<sup>111</sup> See, e.g., Greely, *supra* note 9, at 1134 ("Anything that changes behavior by changing controlled actions will work, ultimately, by changing what neurons fire when and how.").

<sup>112</sup> THE DECLARATION OF INDEPENDENCE para. 2 (U.S. 1776).

<sup>113</sup> Lösel & Schmucker, *supra* note 104. *But cf.* Morton E. Tavel, *The Placebo Effect: The Good, the Bad, and the Ugly*, 127 AM. J. MED. 484, 484 (2014) (discussing the importance of mental belief in a drug treatment's efficacy and defining the placebo effect as "any improvement of symptoms or signs following a physically inert intervention" and finding it "present to a variable extent in all therapeutic encounters").

want an individual to have to work to improve and have the desire to do so. And if this attitude extends to interventions intended to help an individual to not criminally reoffend, while we may be willing to tolerate a degree of intrusion by requiring attendance at therapy sessions, anything that takes away the ultimate decision to “buy in” or not goes too far.

If society chooses to go this route, then all chemical interventions would be forbidden because any improvement would not be “voluntary.” This approach, however, is less compelling when discussing a response-level trait or a minor effect on a “Big Five” trait. For example, there is a point at which society’s interest in preventing drunk driving outweighs an individual’s interest in choosing to drink, regardless of whether this is imposed via a behavioral or a chemical intervention. When it comes to interventions that significantly impact a “Big Five” personality trait, however, this distinction may make sense, and an approach could be adopted which allows more personality-intrusive behavioral interventions than chemical interventions. As this example makes clear, however, this distinction is better served as a factor within the personality integrity test rather than as a standalone test.

Furthermore, the justice system has not focused on the behavioral versus chemical intervention distinction, as evidenced by the fact that eight states already have chemical castration laws.<sup>114</sup> And if the legal system is going to impose chemical interventions in certain scenarios, it is important to have in place a test that weighs the important interests at stake. The personality integrity test is one legal regime that would work to define when an intervention infringes too much on an individual’s liberty whether that intervention is chemical or behavioral.

The personality integrity test has several advantages over the alternatives. First, it ensures that the constitutional conversation incorporates as a central question the measurable degree to which the outward behavior of the defendant is altered by requiring empirically backed effects on recidivism. Second, it requires protection of the thought processes that “cognitive freedom” seeks to protect by requiring inquiry into how an individual’s core personality would be affected. Additionally, it does not reject but accepts the idea that interventions in certain scenarios are justifiable, while clearly delineating what the judicial inquiry should focus on when deciding the appropriateness of a given intervention: how great the State’s interest is in protecting the public and to what extent the intervention alters the defendant’s core personality, as opposed to the effect on more peripheral traits lower on the personality hierarchy. While these requirements may delay the implementation of some beneficial interventions and will not always provide a bright-line answer, unlike the current forced medication or cruel and unusual punishment legal paradigms, they properly focus on the interests at stake.

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<sup>114</sup> See *supra* note 8.



### III. THE PERSONALITY INTEGRITY TEST AS APPLIED

Let us now apply the general framework of the test to the six sentencing scenarios described in Part I. Recall that the reason these scenarios are so challenging is because they lie in the middle category of being neither medically necessary (thus outside *Harper's* purview) nor purely for producing a "better personality." Rather, they are treatments where the objective is to address behavioral impediments that are preventing the individual defendant from optimal integration into everyday society. The interests at stake are therefore considerable for both the State and defendant and require a framework that addresses the questions with an underlying evidence-based understanding. It also should be noted at the outset that because most of today's chemical interventions have substantial physical side effects and unsettled efficacy, the first factor (efficacy) and the third factor (side effects) would significantly constrain forced administration of most current chemical interventions before even reaching the other factors. In an effort to anticipate the future, however, the scenarios will be approached with the assumption that all of the interventions have now been proven effective and have minimal physical side effects. As a result, the analysis for each scenario will center on the second factor (the State's interest) and fourth factor (effect on personality).<sup>115</sup>

Defendant One is an alcoholic and his sentence in scenario 1A includes mandatory attendance at AA meetings. When evaluating the acceptability of the intervention under the second factor, the court must ask: "How substantial is the State's interest in protecting the public from this class of crime?" Given that this is the defendant's third DUI, that DUIs pose a high safety risk,<sup>116</sup> and that DUIs have a high rate of recidivism,<sup>117</sup> the court should give considerable weight to the State's interest in protecting the public from this class of crime.

The State's interest, however, must be balanced against the defendant's substantive liberty interest in personality integrity. Under the fourth factor, the court must ask: "How central are the traits this intervention alters to his personality?" AA, at least historically, is a faith-based, twelve-step treatment model aimed at complete abstinence from alcohol consumption.<sup>118</sup> The behavior the court is seeking to alter—alcohol consumption prior to driving

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<sup>115</sup> For a chart summarizing the six scenarios, see *supra*, p. 296 tbl.1.

<sup>116</sup> NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., TRAFFIC SAFETY FACTS (2014), <http://www-nrd.nhtsa.dot.gov/Pubs/812102.pdf> ("In 2013, 10,076 people were killed in alcohol-impaired-driving crashes, . . . an average of one . . . every 52 minutes.").

<sup>117</sup> NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., TRAFFIC TECH NO. 85, REPEAT DWI OFFENDERS IN THE UNITED STATES (1995), <https://one.nhtsa.gov/people/outreach/trafftech/1995/tt085.htm> ("[A]bout one third of all drivers arrested or convicted of DWI each year are repeat DWI offenders.").

<sup>118</sup> See Lee Ann Kaskutas, *Alcoholics Anonymous Effectiveness: Faith Meets Science*, 28 J. ADDICTIVE DISEASES 145, 146 (2009).

a motor vehicle—is a low-level, response-specific personality trait with little importance or effect as we move up the personality hierarchy.

AA, however, like most forms of intervention, targets a broader range of beliefs and behavior, and these other effects must be considered by the court as well. AA is premised on spiritual principles and building constructive and supportive social networks.<sup>119</sup> While these do not seem harmful, the spiritual aspect of AA, and particularly its historical religious affiliation, implicates higher-order personality traits and must be considered under the fourth factor. A religiously affiliated AA intervention, therefore, will affect personality traits higher up the hierarchy and require a more substantial state interest than a secular twelve-step program which does not implicate the same concerns.

One can also imagine an individualized approach where the impact varies based on whether the individual identifies as religious or spiritual, with a greater impact if the intervention pushes a personality trait in a different direction than the defendant's current personality, rather than heightening an already existing trait. This level of individuality, however, would likely render the test too onerous to administer and would introduce too great a risk of disparities. This type of matching may be beneficial, however, for maximizing the efficacy of any given intervention.<sup>120</sup>

Overall, even changes to these higher-order personality traits are being targeted in a very context-specific scenario, so the effect should be small. Thus, this intervention would pass the personality integrity test since the State's interest is very substantial and the intervention only *significantly* affects relatively peripheral traits and only *slightly* affects more core traits.

In scenario 1B, the same defendant's sentence includes forced administration of a form of Antabuse that has been proven effective at curbing drinking and has minimal side effects. Under the personality test, this intervention is *less* offensive than AA since it does not have the religious or spiritual element of AA. The drug *only* affects the person's propensity to drink alcohol. This evaluation would change, however, if the chemical intervention also affected a trait higher up the personality hierarchy, such as a person's general impulse control.<sup>121</sup> This variation on the intervention may be equally, or even more, effective than Antabuse since poor impulse control is strongly tied to alcoholism, often predates alcohol use, and increases the risk of relapse.<sup>122</sup> Yet, despite its potential efficacy, the personality integrity test would require a far more substantial State interest for the impulse control

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<sup>119</sup> See *id.* at 153.

<sup>120</sup> See Project MATCH Research Group, *Matching Alcoholism Treatment to Client Heterogeneity: Project MATCH Posttreatment Drinking Outcomes*, 58 J. STUD. ON ALCOHOL 7, 7 (1997).

<sup>121</sup> This possibility may not be so far off. In 2010 a patent application was filed for a COMT antagonist used to treat impulse control disorders such as kleptomania. Treating Impulse Control Disorders with Catechol-O-Methyl-Transferase Inhibitors, U.S. Patent No. 8,598,235 (issued Dec. 3, 2013).

<sup>122</sup> Robert F. Leeman et al., "Killing Two Birds with One Stone": Alcohol Use Reduction Interventions with Potential Efficacy at Enhancing Self-Control, 1 CURRENT ADDICTION REPS. 41, 42 (2014).

treatment than is presented by a repeat DUI offender since a person's general impulse control is far more central to a person's personality than their propensity to drink. The drug no longer affects only how the defendant interacts with alcohol, but how impulsive they are in response to *any* stimuli.

The personality integrity test's different treatment of a drug that affects general impulse control illustrates how this test avoids asking the dangerous question of whether a given change in personality is desirable. For example, many would argue that better impulse control is always a positive achievement.<sup>123</sup> In a longitudinal experiment that followed individuals from birth until age thirty-two, impulse control was not only a strong predictor of criminality for at least thirty-two years, but also predictive of health, wealth, and drug dependence.<sup>124</sup> The personal integrity test, however, avoids these broad subjective evaluations of making someone a better person, an important safeguard against the types of government overreach hyperbolized in *Brave New World* and its kin.<sup>125</sup> Instead, the test only asks whether the targeted trait is a core personality trait; if it is, the test then requires a far greater State interest to justify altering it, if such alteration is deemed permissible at all.

Defendant Two was convicted of a sexual offense against a child under twelve years of age. In scenario 2A, his sentence includes intensive behavioral therapy, including plethysmograph and Able testing.<sup>126</sup> This intervention would face a substantial hurdle under the personality integrity test since sexuality is higher on the personality-trait scale than drinking habits. Additionally, the extreme intrusiveness and unpleasantness of the intervention would weigh against it under the third factor measuring side effects. Still, the substantial liberty interest must be weighed against the State's interest. Given the particular heinousness of sex crimes against children, a court could find the intervention constitutional, despite its substantial alteration of a core personality trait.

In scenario 2B, Defendant Two is faced with chemical castration. The analysis is similar to scenario 2A, with one important difference. While the therapy proposed in scenario 2A would substantially alter the defendant's core sexuality, it does not obliterate the sex drive in the way that chemical castration does.<sup>127</sup> Thus, while the State's interest is the same and the interventions target the same personality trait, a court could reasonably find the intervention in scenario 2A is constitutional while deeming scenario

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<sup>123</sup> From birth until at least age thirty-two, childhood self-control is a predictor of "physical health, substance dependence, personal finances, and criminal offending." Terrie E. Moffitt et al., *A Gradient of Childhood Self-Control Predicts Health, Wealth, and Public Safety*, 108 PROC. NAT'L ACAD. SCI. 2693, 2693 (2011).

<sup>124</sup> *Id.* at 2693–94.

<sup>125</sup> See sources cited *supra* note 1.

<sup>126</sup> See *supra* note 21 and accompanying text.

<sup>127</sup> See *supra* note 24 and accompanying text.

2B's unconstitutional, despite the substantial weight of the State's interest in protecting the public from this type of crime. This illustrates how the test accounts not just for what trait is being altered, but also to what degree. This gives the test significantly greater nuance than many of the proposed alternative approaches.<sup>128</sup>

Finally, Defendant Three has been convicted of assault and battery and has a history of angry outbursts. His sentence includes either anger management under 3A or a chemical serotonin agonist that lowers aggression under 3B. Whether scenario 3A is deemed constitutional depends on whether the evidentiary hearing shows that the anger management classes target anger or more general impulsiveness. As mentioned in scenario 1B, impulse control could be considered a core personality trait, whereas anger is less likely to be considered a core trait. This would not be a dichotomous decision, but the degree to which it affected impulsiveness would weigh more heavily in the analysis than any alteration in anger or aggressiveness. Also, while the State's interest in addressing any violent crime is strong, assault and battery are generally less substantial than the crimes in scenarios 2A and 2B, making the intervention less appropriate.

In contrast, and perhaps counterintuitively unless one understands the personality integrity model, scenario 3B's administration of a serotonin agonist may more easily satisfy the test than scenario 3A's anger management classes. If the drug *selectively* lowers aggressive impulses without significantly affecting general impulse control, the test may prefer this intervention to the anger management classes. While the availability of a drug of this selectivity lies in the distant future,<sup>129</sup> if such a drug becomes available, it would more easily pass the personality integrity test than would intervention 3A.

An argument can be made that scenarios 3A and 3B reveal a major shortcoming of the test, namely that personality traits are so intertwined that in practice you can never selectively change one trait without significantly altering another. It may prove impossible, for example, to affect aggression without changing general impulse control. While this may be true, the test accounts for this challenge by weighing the degree of change in the broader personality trait more heavily than change in a lower-order, more specific trait. The intervention does not have to affect only the lower-order trait, but it will find that the greater the selectivity in affecting primarily the lower hierarchy trait that is the target behavior, the less offensive the intervention becomes. This is illustrated well by the test's contrasting treatment between scenarios 1B (Antabuse) and 3B (serotonin agonist). While Antabuse undoubtedly will affect a person's general impulse control, it does so to a

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<sup>128</sup> See *supra* Section II.A (discussing current and alternative interventions).

<sup>129</sup> It also may never come in the form of a serotonin agonist given the diffuse effects of serotonin in the brain. Future developments, however, may allow for far greater targeting of where and when an agonist is active. Umukoro et al., *supra* note 25, at 197.

much lesser degree and has a more localized effect on alcoholism, while the current regime of serotonin agonist's effect is far more likely to extend beyond tamping down aggressive impulses to also affecting general impulse control. Thus, the proposed personality test would favor administration of Antabuse over a general serotonin agonist.

The consequences of this trait-intertwining may mean that the state can never utilize an intervention that targets a personality trait generally (either behaviorally or chemically), rather than a specific behavioral manifestation. Unless the science improves to such an extent that it allows for interventions of far greater specificity, the State will not succeed in arguing the intervention is permissible unless the State interest is deemed sufficiently substantial to outweigh the large intrusion on individual liberty. In this regard, the centrality of the trait to one's personality is still important. For example, in rare circumstances, when the State's interest is very substantial, a court could find a therapy targeting general impulse control appropriate but still find an intrusion on sexuality unjustifiable since this trait could be interpreted as more central to a person's identity depending on the personality model adopted.

#### CONCLUSION

As neuroscience progresses, policy makers will have available an increasing arsenal of behavior-modifying interventions at their disposal to deploy in the hopes of reducing recidivism and making the criminal justice system more rehabilitative. While these interventions are promising, they also can pose grave risks to individual liberty interests, such as those imagined in *1984* and *Brave New World*.<sup>130</sup> Currently, the law lacks an effective mechanism to protect these interests. To date, the Supreme Court has dealt with forced medication only in the limited context of the right to be free from antipsychotic medication where a medical necessity exists.<sup>131</sup> This approach is outdated and represents a fundamental misunderstanding of the types of challenges new interventions developed by neuroscience will present.

As this Article has demonstrated, the types of interventions neuroscience promises are not properly considered medical treatment, since individuals subjected to them may have no diagnosable ailment. Instead, these cognitive interventions are aimed at alleviating an impediment that prevents the individual from functioning appropriately in society. Extending *Harper* and its kin to scenarios outside the realm of medical treatment poses several issues, including encouraging the "medicalization" of crime.<sup>132</sup>

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<sup>130</sup> See sources cited *supra* note 1.

<sup>131</sup> *Washington v. Harper*, 494 U.S. 210, 221–22 (1990); see *Sell v. United States*, 539 U.S. 166, 178 (2003) (reaffirming a liberty interest in the right to refuse antipsychotic medication).

<sup>132</sup> See *supra* note 72 and accompanying text.

Additionally, its focus on physical side effects leaves many of the core concerns, such as the extent of cognitive and personality change, inadequately protected.

Several alternative methods of protecting the extent of cognitive and personality change have been proposed, including recognizing a First Amendment-based right to “freedom of thought” and the Eighth Amendment’s ban on cruel and unusual punishment.<sup>133</sup> While these approaches have benefits, ultimately they are insufficient because they only weakly protect these interests and the Court has been reluctant to recognize them.<sup>134</sup> Thus, the most effective means of protection is to recognize the “intellectual prong” of the substantive liberty interest in the right to refuse medication, advocated for in Justice Stevens’s *Harper* dissent,<sup>135</sup> and develop it into a right of “personality integrity” that can provide a framework to deal with the considerable challenges ahead.

The personality integrity test has several advantages. First, it builds off of (albeit significantly) the Court’s established framework for evaluating cases of forced medication. This makes the test more familiar and would smooth the transition, while still offering the added protection lacking in the original *Harper* framework. Second, the “personality integrity” iteration centers the conversation on the issues that should concern the justice system: weighing the substantiality of the State’s interest against the extent to which the intervention will coercively alter the core identity of the individual. Ultimately, the personality integrity test focuses the constitutional analysis for these novel interventions on the most important issues, while still utilizing mechanisms already in place to protect against known dangers of interventions, such as physical side effects.

The personality integrity test also limits many of the dangers of behavior modification by not subjectively assessing whether a change is beneficial in making the individual a “better person.” Instead, the test only considers the trait being altered, to what extent it is being altered, and how central it is to a person’s identity. Because one of the most serious dangers under existing models is that the State will embark on individual modeling and try to criminalize and eliminate “undesirable traits,” this element prevents the dangerous subjective evaluations that can spur this path.<sup>136</sup>

Finally, the greatest benefit of the personal integrity test and its emphasis on substantive liberty interest is that it forces society to engage in this conversation and decide what it is that it wants the law to protect. The

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<sup>133</sup> See *supra* note 81 (arguing for a First Amendment “freedom of mind” right); Stinneford, *supra* note 8, at 585–99 (challenging chemical castration laws under the Eighth Amendment’s Cruel and Unusual Punishment Clause).

<sup>134</sup> See *supra* Part II for an in-depth discussion of the drawbacks of advocating for protection under the First or Eighth Amendment.

<sup>135</sup> *Harper*, 494 U.S. at 237.

<sup>136</sup> See, e.g., Tatchell, *supra* note 12.

personality integrity test is but one approach to a multifaceted problem. Even if it were adopted, many issues would still have to be resolved that could affect its form and effectiveness. Most importantly, which personality traits best reflect Americans' conceptualization of identity? While that debate is beyond the scope of this Article, the personality integrity test would help anchor and advance the conversation over what Americans value and what they want the justice system to protect when considering forced behavior modification interventions.