Can, and Should, We Morally Enhance Psychopathic Individuals?

Ho Man Him Maastricht University Danish Research Center for Magnetic Resonance

Biography

Ho Man Him is a forensic psychology graduate student at Maastricht University, the Netherlands, and the Danish Research Center for Magnetic Resonance, Denmark. He will soon be pursuing a clinical psychology (forensic track) Ph.D. at Simon Fraser University, Canada. His interests include the assessment and treatment of psychopathy, underlying empathic and moral deficits, and associated psycho-legal issues.

Publication Details

Journal of Cognition and Neuroethics (ISSN: 2166-5087). February, 2023. Volume 9, Issue 1.

Citation

Ho, Man Him. 2023. "Can, and Should, We Morally Enhance Psychopathic Individuals?" *Journal of Cognition and Neuroethics* 9 (1): 35–49.

Can, and Should, We Morally Enhance Psychopathic Individuals?

Ho Man Him

Abstract

Whether or not the aim of treatment for those with psychopathy is to reduce criminality, or to fundamentally change them to fit within societal norms is debated, as well as the morality of associated "enhancement." This review covers contemporary literature and debates on moral enhancements, impairment, and the treatability of psychopaths across neuroethics and forensic psychology. I argue that by moral enhancement of psychopaths, we should mean "moral treatment of psychopaths," and that certain types of psychotherapy might be used to treat psychopaths, against the myth that they are untreatable. Moreover, I argue that the discussion should be focused on what is meant by "moral" and "enhancement (treatment)," with particular consideration of the distinction between passive/active and biomedical/traditional moral enhancement (treatment). Moreover, I caution how the ethics of moral enhancement hinges on associated changes in a psychopath's personality identity, who would benefit from the treatment, reversibility, and presence of safeguards.

Keywords

Psychopathy, Moral Enhancement, Biomedical Treatment, Narrative Identity, Forensic Psychology

"Is it better for a man to have chosen evil than to have good imposed upon him?"

-Anthony Burgess, A Clockwork Orange

In the dystopian novel *A Clockwork Orange*, Alex was a violent gang leader. After being convicted for murder, he voluntarily signed up for an aversion therapy that claimed to rehabilitate criminals across 2 weeks by pairing images of violence with fear, nausea, and paralysis-inducing drugs with Beethoven's 9th symphony in the background. This technique "programmed" Alex to only choose to be good by conditioning, and to be unable to resort to any form of violence, even when required to. He also exhibited side effects of averseness when listening to his favourite composer Beethoven, which eventually compelled him to attempt suicide to relieve himself from the pain.

The title A Clockwork Orange aptly highlights the novel's central thesis: if one is stripped of the freedom to choose between the morally good and bad, then they are not a human; they are clockwork/machine. Whether moral enhancement is ethical

has been a hotly debated topic, but as the landmark review by Specker et al. (2014) suggests: we need to shift our focus of moral enhancement to those with pathological deficiencies. Hence, I would like to focus on psychopathic individuals. Despite not being an official clinical diagnosis in the DSM-5, psychopathy is a robust disorder characterized by moral impairments that provides useful insights, especially within forensic contexts (Hare and Neumann 2009). Before we discuss the possibilities of moral enhancement in psychopaths, it would be imperative to discuss what psychopathy and moral enhancement actually entail and why it might be important to enhance morals. I will review the existing literature, and offer a critical analysis of the issue.

Dangers of Psychopathy and the Catch-22 Dilemma

The term "psychopath" is often associated with charismatic serial killers or chronic criminal offenders. Some would consider the term synonymous with violence, and the disorder untreatable (Skeem et al. 2011). This is a sentiment that is shared by many clinicians, who also believe psychopaths cannot be cured (Salekin 2002), and after release, could offend more than other "types" of offenders (Rice et al. 1992). This has led to unfortunates scenarios in some forensic institutions: because psychopaths do not respond well to treatment, they should not take part in treatment. However, because of this, they are unable to leave the institutions via release or parole, thus resulting in a Catch-22 where there is no escape. Another argument for the inability to treat psychopaths centres around biomedical enhancement, namely that psychopaths cannot and should not be cured with neuromodulatory drugs, as this can change one's social and moral outlook, and hence, can alter their identity radically (Maibom 2014).

What is a Psychopath? And how are they "Morally Impaired?"

The definition of psychopathy has been changing continuously across time, but the 16 Diagnostic Criteria set out by Cleckley (1976) in "The Mask of Sanity" have been the most influential operational definition (Patrick 2018, 5). Many of the symptoms described (e.g., lacking remorse/shame, untruthfulness and insincerity) are moral impairments that characterize the disorder. The same applies for Hare's Psychopathy Checklist-Revised (PCL-R), which has a significant focus on criminal behaviour and violence that comes as a consequence of moral impairments (e.g., Pathological Lying, Callousness and Lack of Empathy). However, there is considerable debate on whether

the PCL-R is a good measure of psychopathy. For instance, criminal behaviour might be a correlate rather than central construct of psychopathy (Skeem and Cooke 2010). To integrate conflicting literature, Patrick, Fowles, and Krueger (2009) created the triarchic model of psychopathy. Specifically, the model stipulates that psychopathy consists of three distinct, but overlapping phenotypic constructs: disinhibition, boldness, and meanness, where all of them have to be present for psychopathy. The key moral impairment would be meanness, where disinhibition acts as a catalyst. This theory also elegantly ties in evidence from cognitive psychology and neuroscience. That is, Blair's Integrated Emotional Systems highlights how meanness could develop from dysfunctional emotional reactivity (where individuals are not sensitive to distress cues, and hence moral/social transgressions occur), owing to deficits in the amygdala. Newman's Response Modulation Theory could explain how cognitive attentional-deficits could impair inhibitory control and punishment learning (Patrick 2022). One could then posit that an effective enhancement/intervention would need to tackle (one of) these three phenotypic traits.

A main reason for moral enhancement is because psychopathy is costly to society. Kiehl and Hoffman (2011) estimated that offending psychopaths cost the U.S. 460 billion per year in criminal social costs, without accounting for psychological costs of victims. It is a risk factor for violence, and there are high costs for non-treatment (Hare 1999). Given the economic, social, and psychological costs of psychopathy (notably violence), if there was a pill that would reduce violent tendencies and immoral behaviour of psychopaths, why shouldn't we instantly use it?

What is Moral Enhancement? Should Psychopaths be Enhanced?

Shook (2012) defines moral enhancement as the modification of brain processes to produce more moral conduct, and to make one more likely to do the morally right thing. He also reminds us that only if increasing moral motivation means greater moral conduct, can it be considered a reliable method of enhancing morality, as illustrated by Douglas (2008). Simkulet (2012) however, states that Shook's definition is flawed. Forcing agents to act rightly by preventing/making it difficult for them from acting wrongly should not be considered enhancement but compulsion, meaning they are forced against their own will to act morally (e.g., *A Clockwork Orange*). Simkulet (2012) posits that moral enhancement facilitates usage of one's free will to make people more likely to succeed in their goals, which is what separates moral from other types of enhancements. In other

words, the distinction it is not as simple as Shook's idea of "environing social contexts" (2012, 3). Focquaert and Schermer (2015) further clarify that moral enhancement is the strengthening of moral capacities, leading to cognitive, affective, and motivational changes in moral decision making and behaviour. A long-term and stable enhancement should entail understanding of what differentiates morally right from wrong, to distinguish enhancement from mere behavioural control, involving responsiveness to moral reasons. There is a general lack of consensus on what constitutes morals, namely how "moral development" depends on which ethical system or theory one agrees with and moral pluralism dictates that there can be (conflicting) moral views that are considered equal and respected. In fact, Brooks (2012) goes as far as saying enhancement itself might violate the equality of reasonable pluralism. Moreover, Specker et al. (2014) aptly summarized that what counts as improvements depends on contexts and roles (e.g., we need detached surgeons to remove brain tumors, but not detached mothers to raise children). However, as Kahane and Savulescu (2013) would be quick to point out, this might call for precision, and not elimination of enhancement. Moreover, one could argue there is significant overlap of morals across different ethical systems (e.g., altruism, fairness, and empathy [Persson & Savulescu, 2013]). This corresponds with what Shook (2012) called Minimal Moral Commonsensism, where he argues we should enhance commonly accepted views of morality, enhancing at least one of the following moral contexts: (1) Appreciation; (2) Decisions; (3) Judgements; (4) Intentions; and (5) Willpower. Kabasenche (2012) encourages us to think of Shook's concept as a Moral Quotient (MQ) with, for example, increasing moral appreciation increasing the MQ score. He then argues that with the absence of other moral contexts, one is not truly moral, and we can only measure morals holistically. This is a fair critique because enhancement of moral appreciation doesn't necessarily mean moral action, despite an unfair assumption of MQ being measured linearly (e.g., each moral context could be weighted differently or be interconnected). But the question still remains: how do we define what is "moral?"

I believe Lev (2012) provides an interesting alternative (i.e., moral enhancement should focus on basic moral capacities that enable exercise of moral agency). Namely, he suggests: (1) Critical Reflection; (2) Impartiality; (3) Imaginative; and (4) Interpretative Abilities. This could be reconciled with Simkulet's proposal, as it increases the likelihood that one could exercise their free will in achieving their goals. However, in the context of psychopathy, I am sceptical as to whether Lev's proposal might be feasible. Some psychopaths are perfectly capable of cognitive empathy, or in understanding what is morally right from wrong (Cima et al. 2010). Their main impairment isn't in

understanding morals but not caring about such knowledge and its consequences, or that they are unable to automatically access this knowledge when engaging in goaldirected behaviour (e.g., due to attentional deficits) (Drayton et al., 2017; Vitale et al., 2016). In fact, Cleckley (1976) himself observed psychopaths show no evidence of a deficit in complex matters of judgement, as long as they are not direct participants. Or in the words of our protagonist Alex, "I see what is right and approve, but I do what is wrong." Moreover, as Horstkötter et al. (2012) argues, one should distinguish between treatment and enhancement. Nick Bostrum defines enhancement as an elevation beyond normal levels (Bostrum 2008), while Dorothee Horstkötter points out that those with pathological moral/antisocial impairments that deviates from the norm (e.g., psychopaths) need medical treatment to reduce such impairments, and enhancement is not required within this context. At least in the context of psychopaths, the appropriate term would be "treatment," not "enhancement." This raises several questions, namely: What is considered "normal?" When is moral functioning pathological? For example, lawyers, hedge fund managers, or world leaders are sometimes considered "successful psychopaths," or as Hare and Babiak (2006) would call them: "Snakes in Suits." Should they be enhanced/treated as well? This further leads to a fundamental issue: Who decides what is morally better? The morality of a superior moral agent in control is a different debate, but regardless, there should be safeguards to avoid abuse of power and usage of enhancements that are irreversible, continuously reviewed, and revised.

Feasibility of Treating Psychopaths

Going back to our introduction, if psychopaths were truly "untreatable," then our ethical debate would only be a mildly stimulating thought experiment. Is this really true (e.g., in forensic settings)? D'Silva (2004) systematically reviewed 24 psychopathy intervention studies, and found that no study met the standard for an acceptable study to answer whether "Treatment[s] make psychopaths worse." Notwithstanding the severe methodological flaws, they concluded that the PCL-R and treatment response association is still inconsistent. In a recent review, De Ruiter and Hildebrand (2022) found that psychopathy is not untreatable, and in fact works especially well if it is personalised and continued over long durations. They point out the myth that psychopaths cannot engage in therapeutic alliance, and how there is no evidence high scoring psychopaths seek treatment to manipulate others.

Moreover, the authors cite the general effectiveness of Cognitive Behavioural Therapy (CBT) regardless of PCL-R scores, and the potential for Schema Therapy (ST) specific for psychopaths. They especially mention a case study which showed how ST could successfully treat a PCL-R psychopath over 4 years, changing both the affective and interpersonal facets (closely linked to moral deficits) without fundamentally altering his identity (Chakhssi et al. 2014). Of course, one would rightfully criticize that overarching conclusions should not be made from individual cases (Crockett et al. 2014). However, in a recent randomized control trial (RCT), ST was found to be more effective than regular treatments for forensic populations in enhancing rehabilitation, and reducing personality disorder symptoms, including those with antisocial and borderline traits (Bernstein et al., 2021). This suggests a potential to treat violent offenders, to make them understand and behave better morally, including those with psychopathy. Returning to Patrick's triarchic model, ST helps one meet their own emotional needs by identifying patterns of negative thinking and developing new coping mechanisms. Thus, I would argue this mainly acts in reducing the disinhibition facet (e.g., understanding and evaluating consequences of actions and thoughts). ST would also fulfil the earlier definitions of moral enhancement, providing a true understanding of morals paired with corresponding action within appropriate contexts. By working on disinhibition, this alleviates the problem that psychopaths are unable to access/apply morals they understand. I would agree with the concern of Specker et al. (2014) that some researchers overestimate feasibility of moral enhancement (e.g., genetic modification of vices and virtues, using Deep Brain Stimulation [DBS] to target phenotypic traits characteristics, etc.); but, in the case of (offender/PCL-R) psychopathy, there is reason to believe that moral treatment is indeed feasible, at least by means of cognitive therapies, so they will no longer be trapped in Catch-22s

Differences between Biomedical and Traditional Moral Enhancements of Psychopaths

The feasibility of treating psychopaths might not apply to all moral enhancements. One might need to distinguish between biomedical (e.g., drugs, tDCS) and traditional forms (e.g., ST, moral education) of enhancement. Glannon (2014) points out the lack of empirical studies showing the effectiveness of psychotropic medication in reducing/ eliminating psychopathic traits/behaviour, while Hübner and White (2016) warns us of the ethical flaws in using DBS for treating psychopathy (i.e., because there is no

individual medical benefit, and voluntary informed consent). More crucially, those who benefit most from moral (bio)enhancement might be society (e.g., safety), and not the individual offender. Moreover, our knowledge is limited regarding side effects of moral enhancements, especially biomedical forms. Highly invasive procedures such as DBS require brain surgery, and have potential side effects. For example, DBS in Parkinson's Disease could lead to cognitive, behavioural or psychiatric side effects, despite being reversible (Clausen 2010). At present, we do not know whether the same applies for psychopaths, as it did for our protagonist Alex. This would especially be risky for procedures that are non-reversible, as Specker et al. (2014) illustrates using stem-cell injections. This constitutes a key difference between biomedical and traditional forms of enhancement: there is potential for more side effects, and also irreversibility for some biomedical techniques compared to traditional treatment. A larger problem for moral enhancing treatment of psychopaths as posed by Maibom (2014) is that since psychopathy is a personality disorder, to treat it would be to change one's identity drastically.

Perhaps Macbeth best illustrated this (Shakespeare 1992/1606, 46 - 47):

I dare do all that become a man;

Who dares do more is none.

Shakespeare reminds us despite Macbeth's initial reluctance, by daring to kill Duncan, he dared to do more, and the more he dared the less human he became. This illustrates a main concern of moral enhancement (i.e., once we dare to accept and actively modify ourselves, when will we eventually lose our sense of humanity?). Focquaert and Schermer (2015) acknowledge this, warning of the dangers corresponding with changes in narrative identity. Narrative identity consists of central and salient characteristics that build a person's identity. When one's narrative identity changes, this should be incorporated without compromising the sense of self for the continuity of narrative. The authors give an example of how moral enhancement could cause abrupt or concealed identity changes that are disruptive. If after a moral enhancement treatment, a psychopath now suddenly becomes warm and empathetic, this could threaten the continuity of their narrative identity. The authors further posit identity changes that could be unnoticed by the treated patient, but eventually threatens the autonomy of the self with the associated incoherence.

Whether or not specific treatments should be used to morally enhanced psychopaths might be evaluated using Focquaert and Schermer's (2015) classification of treatments.

They proposed a distinction between active v passive; direct v indirect interventions. Direct interventions *target the brain* in order to change thoughts and behaviour, while indirect interventions *change thoughts patterns and behaviour* to rewire one's brain structure and functioning. This is essentially a distinction between biomedical and traditional forms of interventions.

The second distinction is more interesting: active treatments require specific psychological/behavioural efforts from the individual to reach a desired end, while passive interventions do not need this. In other words, active interventions are done with participants, while passive ones are done to them. The authors argue passive interventions are more dangerous ethically, as this might compromise a person's autonomy and identity. Participants are unable to withdraw consent during such treatment, which can lead to sudden/concealed narrative identity changes. In contrast, indirect interventions do not have this problem, as individuals are involved continuously (e.g., in ST, the individual has to actively identify their own negative patterns). They do acknowledge the potential problems of direct neuromodulations, which is more likely to be passive (i.e. the device does everything, more likely to bypass conscious reflection, deliberation, and choice. However, they also suggest that direct interventions could be justified, if there are safeguards; e.g., proper informed consent, procedures, and pre-post-intervention counselling). This means that an individual has made a choice freely and have an active role, with corresponding insight and reflection, to incorporate passively induced changes into their narrative identity. Considering safeguards, a deeper cost-benefit understanding of enhancement techniques, direct and indirect interventions could be equally justified ethically.

Coercion

One could challenge whether psychopathic offenders freely choose treatment? If a treatment (direct or indirect) is shown to be effective, is it justified to enforce it? Indirect treatments are less of a problem here, as they simply would not work without therapeutic alliance, and the direct involvement of the individual in question.

The debate on whether psychopaths should be forced to morally bio-enhance concentrates on the violation of freedom of thought (i.e., is the State justified in intervening forcefully or are they violating an offender's freedom?). Craig (2016) is strongly against the intrusion of a psychopath's freedom. He argues that there is a fundamental right to mental integrity, which should be protected to prevent disruption

of narrative identity, and hence autonomous human agency. Peterson and Kragh (2017) however, respond by arguing that being confined to prison is also associated with a loss of freedom of thought, e.g. it could lead to inability to initiate activity, chronic depression, or loss of sense of reality (32). It is not clear whether bioenhancement is any more damaging than incarceration. Allowing forced imprisonment but not forced bioenhancement rehabilitation would be inconsistent, and a double standard.

Curtis (2012) would support forced enhancement in general, arguing that everything boils down to classifications of enhancements. For instance, supplemental enhancements have a less severe impact than strengthening ones, while emotional enhancements have more impact than cognitive or volitional ones. In fact, if the enhancement was safe and effective, prevents harm to others, and reintegrates one into society, this can be more cost-effective than incarceration, if we apply a utilitarian argument. However, one might also argue from a deontological perspective whether sacrificing human autonomy is ever justified, or to quote the Chaplain from *A Clockwork Orange*: "Goodness is something chosen. When a man cannot choose, he ceases to be a man." Fundamentally, if coercion is ever used, then it should only be used as a means of last resort, and not as commonplace, in order to respect the freedom and autonomy of the individual as much as possible (Nedopil 2016).

More recently, Baccarini and Malatesti (2017) proposed an open justification to treating psychopathy using moral bioenhancement. They say one should only prescribe what they would also prescribe to others, and they believe psychopaths would want other psychopaths to be morally bioenhanced. I believe this argument is flawed. From a practical standpoint, it is not necessary to use bioenhancement as there are better validated alternatives (e.g., Schema Therapy). Moreover, as described above, psychopaths are morally impaired, but show little deficits in cognitive empathy or rational understanding. There is little reason to believe that they lack the volition to make rational decisions according to their system of reasons. Moreover, from a neuroethics standpoint, as Sirgiovanni and Garasic (2020) state, there is evidence that "the psychopath's cognitive-affective system would consistently justify reasons against mandatory moral bioenhancement to herself, even if she wishes differently for others, and that the prescription cannot be extended" (2). Adding the problems of irreversibility and radical changes in narrative identity of bioenhancement to the practical, empirical, and neuroethical challenges posed, the open justification argument might be limited.

Conclusions

Alex's story ends with him being reverted to his "normal" violent self, having learnt nothing from his experiences, in contrast to us. I argued that whether psychopaths should be morally enhanced depends on the definition and measurement of "moral" and whether it fits with existing knowledge of psychopathy. I also pointed out by "moral enhancement," what we really mean is "treatment" for psychopaths. Moreover, I explored the myth of how "psychopaths are untreatable," and that there are currently effective means to do so. Lastly, I explained the distinctions between biomedical and traditional forms of moral enhancement for psychopaths could lie in who it benefits, associated changes in identity, our knowledge of side effects, irreversibility, active/passiveness, and presence of safeguards.

Future Research

Considering the contents of this review, this leaves us with some ideas for future research:

- (1) What is the best method for moral enhancement in psychopaths? Is it better to use biomedical techniques in conjunction with or separately from traditional methods (cf. Kabasenche 2012)?
- (2) How do we design safeguards to prevent moral enhancement methods from falling into the wrong hands, e.g., state-control, or psychopaths who strive to cause ultimate harm (cf. Tonkens 2012)?
- (3) Is it reasonable to force children with psychopathic traits (e.g. who commit violent acts) coercively to use moral enhancement/ interventions, and would it be stigmatizing and a self-fulfilling prophecy that results in moral decline (cf Horstkötter et al. 2012; Glannon 2014)?

These are only some of the suggestions for future research. I hope that this review presented a comprehensive picture of the literature, connecting arguments from neuroethics with a clinical, empirical understanding of psychopathy for further research questions to be raised.

References

- Baccarini, Elvio, and Luca Malatesti. 2017. "The Moral Bioenhancement of Psychopaths." Journal of Medical Ethics 43 (10): 697–701. <u>https://doi.org/10.1136/</u> medethics-2016-103537.
- Bernstein, David P., Marije Keulen-de Vos, Maartje Clercx, Vivienne de Vogel, Gertruda C. M. Kersten, Marike Lancel, Philip P. Jonkers, et al. 2023. "Schema Therapy for Violent PD Offenders: A Randomized Clinical Trial." *Psychological Medicine* 53 (1): 88–102. <u>https://doi.org/10.1017/S0033291721001161</u>.
- Blair, R. J. R. 2005. "Applying a Cognitive Neuroscience Perspective to the Disorder of Psychopathy." Development and Psychopathology 17 (3): 865–91. <u>https://doi.org/10.1017/S0954579405050418</u>.
- Brooks, Thom. 2012. "Moral Frankensteins." *AJOB Neuroscience* 3 (4): 28–30. <u>https://doi.org/10.1080/21507740.2012.721467</u>.
- Chakhssi, Farid, Truus Kersten, Corine de Ruiter, and David P. Bernstein. 2014. "Treating the Untreatable: A Single Case Study of a Psychopathic Inpatient Treated with Schema Therapy." *Psychotherapy* 51: 447–61. <u>https://doi.org/10.1037/a0035773</u>.
- Christen, Markus, and Darcia Narvaez. 2012. "Moral Development in Early Childhood Is Key for Moral Enhancement." *AJOB Neuroscience* 3 (4): 25–26. <u>https://doi.org/10.1</u> 080/21507740.2012.721460.
- Cima, Maaike, Franca Tonnaer, and Marc D. Hauser. 2010. "Psychopaths Know Right from Wrong but Don." Care." *Social Cognitive and Affective Neuroscience* 5 (1): 59–67. https://doi.org/10.1093/scan/nsp051.
- Clausen, Jens. 2010. "Ethical Brain Stimulation Neuroethics of Deep Brain Stimulation in Research and Clinical Practice." *European Journal of Neuroscience* 32 (7): 1152–62. <u>https://doi.org/10.1111/j.1460-9568.2010.07421.x</u>.
- Cleckley, Hervey M. 1976. The Mask of Sanity: An Attempt to Clarify Some Issues about the so-Called Psychopathic Personality. Saint Louis: The C. V. Mosby Company.
- Craig, Jared N. 2016. "Incarceration, Direct Brain Intervention, and the Right to Mental Integrity – a Reply to Thomas Douglas." *Neuroethics* 9 (2): 107–18. <u>https://doi.org/10.1007/s12152-016-9255-x</u>.
- Crockett, Molly J. 2014. "Moral Bioenhancement: A Neuroscientific Perspective." *Journal of Medical Ethics* 40 (6): 370–71. <u>https://doi.org/10.1136/medethics-2012-101096</u>.

- Curtis, Benjamin L. 2012. "Moral Enhancement as Rehabilitation?." *AJOB Neuroscience* 3 (4): 23–24. <u>https://doi.org/10.1080/21507740.2012.721448</u>.
- Douglas, Thomas. 2008. "Moral Enhancement." *Journal of Applied Philosophy* 25 (3): 228–45. https://doi.org/10.1111/j.1468-5930.2008.00412.x.
- D."ilva, Karen, Conor Duggan, and Lucy McCarthy. 2004. "Does Treatment Really Make Psychopaths Worse? A Review of the Evidence." *Journal of Personality Disorders* 18 (2): 163–77. <u>https://doi.org/10.1521/pedi.18.2.163.32775</u>.
- Dutton, Kevin. 2012. The Wisdom of Psychopaths: What Saints, Spies, and Serial Killers Can Teach Us About Success. New York: Scientific American/Farrar, Straus and Giroux.
- Focquaert, Farah, and Maartje Schermer. 2015. "Moral Enhancement: Do Means Matter Morally?."*Neuroethics* 8 (2): 139–51. <u>https://doi.org/10.1007/s12152-015-9230-y</u>.
- Glannon, Walter. 2014. "Intervening in the Psychopath." Brain." *Theoretical Medicine and Bioethics* 35 (1): 43–57. <u>https://doi.org/10.1007/s11017-013-9275-z</u>.
- Hare, Robert D. 1999. "Psychopathy as a Risk Factor for Violence." *Psychiatric Quarterly* 70 (3): 181–97. <u>https://doi.org/10.1023/A:1022094925150</u>.
- Hare, Robert D, and Craig S Neumann. 2009. "Psychopathy: Assessment and Forensic Implications." The Canadian Journal of Psychiatry 54 (12): 791–802. <u>https://doi.org/10.1177/070674370905401202</u>.
- Horstkötter, Dorothee, Ron Berghmans, and Guido de Wert. 2012. "Moral Enhancement for Antisocial Behavior? An Uneasy Relationship." *AJOB Neuroscience* 3 (4): 26–28. <u>https://doi.org/10.1080/21507740.2012.721451</u>.
- Hübner, Dietmar, and Lucie White. 2016. "Neurosurgery for Psychopaths? An Ethical Analysis." *AJOB Neuroscience* 7 (3): 140–49. <u>https://doi.org/10.1080/21507740.2</u> 016.1218376.
- Kabasenche, William Paul. 2012. "Moral Enhancement Worth Having: Thinking Holistically." AJOB Neuroscience 3 (4): 18–20. <u>https://doi.org/10.1080/21507740.</u> 2012.721464.
- Kahane, Guy, and Julian Savulescu. 2015. "Normal Human Variation: Refocussing the Enhancement Debate." *Bioethics* 29 (2): 133–43. <u>https://doi.org/10.1111/ bioe.12045</u>.
- Kiehl, Kent A., and Morris B. Hoffman. 2011. "The Criminal Psychopath: History, Neuroscience, Treatment, and Economics." *Jurimetrics* 51: 355–97.

- Lev, Ori. 2012. "Enhancing the Capacity for Moral Agency." *AJOB Neuroscience* 3 (4): 20–22. <u>https://doi.org/10.1080/21507740.2012.721462</u>.
- Maibom, Heidi L. 2014. "To Treat a Psychopath." Theoretical Medicine and Bioethics 35 (1): 31–42. <u>https://doi.org/10.1007/s11017-014-9281-9</u>.
- Nedopil, Norbert. 2016. "Special Considerations in Forensic Psychiatry." In The Use of Coercive Measures in Forensic Psychiatric Care: Legal, Ethical and Practical Challenges, edited by Birgit Völlm and Norbert Nedopil, 135–49. Cham: Springer International Publishing. <u>https://doi.org/10.1007/978-3-319-26748-7_8</u>.
- Patrick, Christopher J. 2022. "Psychopathy: Current Knowledge and Future Directions." Annual Review of Clinical Psychology 18 (1): 387–415. <u>https://doi.org/10.1146/</u> <u>annurev-clinpsy-072720-012851</u>.
- Patrick, Christopher. J. 2018. Handbook of psychopathy (2nd ed). The Guilford Press.
- Patrick, Christopher J., Don C. Fowles, and Robert F. Krueger. 2009. "Triarchic Conceptualization of Psychopathy: Developmental Origins of Disinhibition, Boldness, and Meanness." *Development and Psychopathology* 21 (3): 913–38. <u>https://doi.org/10.1017/S0954579409000492</u>.
- Persson, Ingmar, and Julian Savulescu. 2013. "Getting Moral Enhancement Right: The Desirability of Moral Bioenhancement." *Bioethics* 27 (3): 124–31. <u>https://doi.org/10.1111/j.1467-8519.2011.01907.x</u>.
- Petersen, Thomas Søbirk, and Kristian Kragh. 2017. "Should Violent Offenders Be Forced to Undergo Neurotechnological Treatment? A Critical Discussion of the "Freedom of Thought" Objection." *Journal of Medical Ethics* 43 (1): 30–34. <u>https://doi. org/10.1136/medethics-2016-103492</u>.
- Rice, Marnie E., Grant T. Harris, and Catherine A. Cormier. 1992. "An Evaluation of a Maximum Security Therapeutic Community for Psychopaths and Other Mentally Disordered Offenders." *Law and Human Behavior* 16 (4): 399–412. <u>https://doi.org/10.1007/BF02352266</u>.
- Ruiter, Corine de, and Martin Hildebrand. 2022. "Therapeutic Considerations and Interventions for Psychopathy." In *The Complexity of Psychopathy*, edited by Jennifer
 E. Vitale, 359–80. Dangerous Behavior in Clinical and Forensic Psychology. Cham: Springer International Publishing. <u>https://doi.org/10.1007/978-3-030-83156-1_14</u>.
- Salekin, Randall T. 2002. "Psychopathy and therapeutic pessimism. Clinical lore or clinical reality?." Clinical psychology review vol. 22,1 (2002): 79-112. <u>https://doi.org/10.1016/s0272-7358(01)00083-6</u>.

Shakespeare, William. 1992. Macbeth. Wordsworth Classics.

- Shook, John R. 2012. "Neuroethics and the Possible Types of Moral Enhancement." *AJOB Neuroscience* 3 (4): 3–14. <u>https://doi.org/10.1080/21507740.2012.712602</u>.
- Simkulet, William. 2012. "On Moral Enhancement." *AJOB Neuroscience* 3 (4): 17–18. https://doi.org/10.1080/21507740.2012.721449.
- Sirgiovanni, Elisabetta, and Mirko Daniel Garasic. 2020. "Commentary: The Moral Bioenhancement of Psychopaths." *Frontiers in Psychology* 10. <u>https://www.frontiersin.org/articles/10.3389/fpsyg.2019.02880</u>.
- Skeem, Jennifer L., and David J. Cooke. 2010. "Is Criminal Behavior a Central Component of Psychopathy? Conceptual Directions for Resolving the Debate." *Psychological Assessment* 22: 433–45. <u>https://doi.org/10.1037/a0008512</u>.
- Skeem, Jennifer L., Devon L. L. Polaschek, Christopher J. Patrick, and Scott O. Lilienfeld. 2011. "Psychopathic Personality: Bridging the Gap Between Scientific Evidence and Public Policy." *Psychological Science in the Public Interest* 12 (3): 95–162. <u>https://doi.org/10.1177/1529100611426706</u>.
- Specker, Jona, Farah Focquaert, Kasper Raus, Sigrid Sterckx, and Maartje Schermer. 2014. "The Ethical Desirability of Moral Bioenhancement: A Review of Reasons." BMC Medical Ethics 15 (1): 67. <u>https://doi.org/10.1186/1472-6939-15-67</u>.
- Tonkens, Ryan. 2013. "Feeling Good About the End: Adderall and Moral Enhancement." *AJOB Neuroscience* 4 (1): 15–16. <u>https://doi.org/10.1080/21507740.2012.757567</u>.
- Vitale, Jennifer. E., Baskin-Sommers, Arielle. R., Wallace, John. F., Schmitt, W. A., & Newman, Joseph. P. 2016. "Experimental investigations of information processing deficiencies in psychopathic individuals: Implications for diagnosis and treatment." In Gacono, Carl, B. (Ed.), *The clinical and forensic assessment of psychopathy: A practitioner.*" guide, 54–72. Routledge/Taylor & Francis Group.
- Waller, Rebecca, and Luke Hyde. 2017. "Callous-Unemotional Behaviors in Early Childhood: Measurement, Meaning, and the Influence of Parenting." Child development perspectives vol. 11,2: 120-126. <u>https://doi.org/10.1111/ cdep.12222</u>.