

INMATES AND STIMULANTS: A CASE FOR PROMOTING
WELL-BEING VIA STIMULANTS

by

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PREFACE

Biomedical technology, one of human's greatest designs has transformed the relationship between humans, their values, and their relationship to the world. In the recent decades, there has been a radical change in technology. Biomedical technologies are no longer just being studied and applied to those who have an illness, disability or disease. Applications of these biomedical technologies are being studied for their effects on those who are considered 'normal health' individuals. As our understanding of the human body increases, we may acquire ways to use biomedical technology as a way to surpass some of our biological and psychological limitations. Desires, emotions, reasoning capacities, attitudes, and thoughts may now be more in our control than before. It seems possible that technology may allow us to enhance our bodies with capacities never thought possible.

Many scholars, and possibly for good reason, have expressed their worries and objections to the ability to enhance our bodies. Hopes of improving or going beyond human capacities as captured in Kahane, Savulescu, and Meulen's first book to review the scientific expansion in human enhancement,¹ are put up against those who consider nature not in need of manipulation, and argue that in doing so we miss the value and significance of what it means to be human. However, to do this will require that we carefully examine all the benefits, risks, and limits of the scientific evidence of enhancement technologies. It is also important that we examine questions of whether we ought to value and promote such technologies as well as examining what the implications of using enhancing technologies will be for humans and our society.

¹ Julian Savulescu, ter Muelen, and Guy Kahane. *Enhancing Human Capacities* (Chichester, UK: Wiley-Blackwell, 2011).

In addition to the advancement of biomedical enhancements, comes an equally important and provoking question we ought to consider: if it is the case that these biomedical enhancements show promises in enhancing our psychology and biology, will they be provided to people, specifically those with no cognitive diseases or disabilities, and if so, who will be the beneficiaries of such technologies? These questions have been considered by various scholars. This thesis will take on a similar role. In particular, I hope to take this debate towards a group of people who more often than not are being ignored, treated indifferently, and in some respects left to fend for themselves. In the United States, 2.2 million inmates are locked up in either one of the 1,719 state prisons, 102 federal prisons, 942 juvenile correctional facilities, or 3,283 local jails.² Whether those who are incarcerated “deserve” to be locked up is not the task I am taking up here. However, if we are impacted and uncomfortable by such numbers, then it may be important to consider what we can do to help those who are otherwise disadvantaged.

In prisons, traditional forms of enhancement, e.g., education and vocational programs are – among other things - current methods used to rehabilitate inmates, and ultimately prepare inmates for release and decrease recidivism rates. Although recidivism rates have not drastically declined, these programs have made improvements in the lives of some inmates. It is of course not the task of prison education programs to stop all recidivism rates, and rid the society of crime. But while they exist, it seems imperative to provide as many opportunities for inmates to increase their chance of success in life in prison and after prison.

This is a heavy task to ask of these programs and those who work in them. Prisons

² Peter Wagner and Bernadette Rabuy, “Mass Incarceration: The Whole Pie 2016,” Prison Policy Initiative, March 4, 2016, <https://www.prisonpolicy.org/reports/pie2016.html>.

are not educational institutions, and so these programs and the inmates must adapt to the realities of prison environments. As such, they face many difficulties. A lack of resources (e.g., funds, teachers, and programs), lack of class management, and quality of courses offered, quality of teachers, time constraints, and low-educational attainment and performance skills amongst many inmates are all serious obstacles that impede an inmate from improving their life.

The best solution to an issue like this would be to do the complete opposite: provide more funds, better quality programs, and teachers, offer better educational opportunities, and work on improving policies that can prevent high arrest rates especially in poor communities, where most inmates come from. This solution, as one can imagine, will be very timely, expensive, and will require the best minds and motivated individuals. Although it may be possible to reform our prison policies and institutions and it is something we should certainly strive for, it may not happen anytime soon. While these substantial changes need to be made, many inmates will continue to experience the serious undeserved inequalities that come with being incarcerated. Inmates may not be able to acquire the skills, knowledge, and valuable character traits that may improve their overall well-being and increase their chances of succeeding in life.

This may require us to look for other means of remedying the difficulties that inmates face while incarcerated. As such, I propose that we ought to look at cognitive enhancements, specifically pharmaceutical stimulants such as Adderall, Modafinil, Ritalin, as a tool that may be able to promote an inmate's well-being. Where an inmate may not have a strong educational background, or where they may lack the skills, moral

character, and tools to succeed in these programs, stimulants may be able to remedy those constraints. Furthermore, for those inmates who may in some general sense be better-off, stimulants may also further promote their well-being.

The term enhancement has many different definitions, each focusing on a different desirable goal. I will be using a definition of enhancement commonly found in literature known as the welfarist approach.³ The welfarist approach states that an enhancement is any change in the biology or psychology of a person whereby the chances of leading a good life in the relevant set of circumstances is increased. In other words, if a tool, as a stimulant, can increase the possibilities of living the good life, then it can be considered an enhancement.

Studies conducted on stimulants show promises on improving the cognitive capacities such as reasoning, memory retention, self-control, increased confidence, delayed gratification, and lowering impulsivity, each of which can be essential for an inmate's well-being. If this is true, I propose that we have a moral obligation to conduct further research to see whether stimulants can be shown to promote the well-being of an inmate. The main goal of this thesis will be to see whether pharmaceutical stimulants may be a way of remedying the severe inequalities that inmates face, in order to promote their well-being and increase their chances of succeeding in life.

My project will consist of two papers. In paper one, I will argue that we have a moral obligation to see how stimulants might be able to remedy the disadvantages that inmates face from circumstances that they may not be in control of, in order to promote their well-being. The first section of the paper will lay out the background of the project.

³ Savulescu, ter Muelen, and Kahane, *Enhancing Human Capacities*, 7.

First, it will discuss key concepts and issues about inmates, the traditional enhancement programs in prisons, and followed with an explanation of cognitive enhancements, specifically stimulants. The second part of the paper will focus on a particular theory of distributive justice, namely, luck egalitarianism.

Luck egalitarianism aims to equalize the distribution of resources for those who face inequalities that are due to specific kinds of luck. They are brute luck and option luck. In particular, luck egalitarians would argue that inmates are not candidates of distributive justice. I will argue otherwise, that inmates may be candidates of distributive justice given the unjust inequalities they face, most of which may not be morally responsible for. This will lead me to make the claim that we ought to see whether stimulants may be a tool that can improve an inmate's well-being. The final section of the paper will be devoted to four objections and replies to my proposal. Objections will take the form of concerns against medicalizing crime via stimulants, potential coercion of providing stimulants to inmates, and whether providing stimulants to inmates – many of who are minorities – will perpetuate the targeting of disadvantaged members of society.

The second paper will discuss an Aristotelian virtue ethics approach to the cognitive enhancement debate. The paper will consider whether a virtue ethics framework would permit the use of pharmaceutical stimulants, for inmates who are enrolled in educational and vocational programs. The first section in the paper will lay out a case study of inmates who are enrolled in prison educational and vocational programs who are seeking to promote their well-being and increase the possibilities of leading a flourishing life. The second section of the paper attempts to clarify the key concepts of Aristotle's virtue ethics project.

First, it will make the claim that the virtue ethics project is one which can benefit inmates who are enrolled in the prison programs. Second, it will examine the role of the virtues of intellect and virtues of character, each of which is a necessary component for leading a flourishing life. In particular, it will be asked whether Aristotle's virtue ethics framework is compatible with using stimulants as tools which can facilitate the virtues of intellect and virtues of character that is necessary to lead a flourishing life. It will be argued that it is morally permissible, under an Aristotelian virtue ethics framework, for inmates enrolled in these programs to use stimulants as a way to facilitate an inmate's path to a flourishing life.

The final section will explore objections and replies to a virtuous cognitive enhancement use. The objections will attempt to make the case that stimulant use may not be compatible with an Aristotelian virtue ethics framework and as such is not morally permissible. Replies will then be offered to these objections. In concluding this thesis, I hope to show that stimulants may be a viable avenue for inmates to take control of their lives, and promote their well-being.

I. LUCK EGALITARIANISM, INMATES, AND STIMULANTS

Introduction

In prisons, traditional forms of enhancement such as education and vocational programs are current practices used to rehabilitate inmates, prepare them for release, and decrease recidivism. While some programs have been able to accomplish those goals, they may not be enough to provide the immediate and necessary help inmates need. There are a couple of reasons for this: a lack of resources (e.g., funds, teachers, grants), lack of class management, quality of courses offered, *time* constraints (emphasis added), and low-performance skills amongst most inmates. A consequence is that a lack of resources and opportunities impedes an inmate's ability to succeed in life and can also harm their well-being. Their well-being is harmed insofar as inmates are blocked from being able to promote their ideal of well-being.⁴ A further problem also arises - many inmates come from poor communities. As a result, if the prison system is releasing inmates who have no skills or control over their own well-being back into those communities, it can perpetuate the disadvantages and injustices the individuals themselves face and can affect the communities they return to. In other words, if an inmate does not acquire the necessary skills and tools to improve their lives, they may not be able to navigate life outside of prison, and worse may recidivate. Evidence of these harms is very apparent in the literature that analyzes prison recidivism rates and crime rates in disadvantaged communities.

If a goal of prisons is rehabilitating inmates, which I believe is a current goal of correctional facilities, then we ought to see how we can promote the well-being of an

⁴ It does not matter for these purposes which ideal or theory of well-being one chooses.

inmate. As I will show, prisons as they stand are not fully equipped to be able to provide the educational and vocational training that inmates need.⁵ Additionally, inmates may not be equipped with the skills needed to succeed in these programs in time for release. This is not to say that inmates aren't capable learners. The fact remains that most inmates have low educational attainment for various reasons, some which may not be a fault of their own.

Changes in policies that affect prisons institutions and educational institutions would be ideal. However, we may need to search for other avenues in the meantime amidst this larger problem. Whichever avenue is sought, it must be able to give the inmates an opportunity to promote their well-being as justice demands of it. I believe pharmaceutical stimulants may be an avenue that can potentially provide effective changes necessary for the promotion of an inmate's well-being. Particularly, I argue that we ought to further investigate how stimulants might benefit members of the prison population who do not have any cognitive or mood disorders or diseases. In doing so, I will show that stimulants may be able to provide some advantages that traditional forms of enhancement such as education or vocational programs in prison may not be able to.

In order to build my case for why we ought to investigate how stimulants might benefit inmates⁶, I will first argue that as a means of distributive justice, we ought to see

⁵ Brown, Brian. *From Cell Blacks to Classrooms: Reforming Inmate Education to Improve Public Safety*. <http://www.lao.ca.gov>.

⁶ Proposals for providing stimulants to different populations of disadvantaged people(s) have been gaining momentum within the cognitive enhancement literature. These proposals typically involve advocating for: (1) providing stimulants as a form of rehabilitation treatment for people who have some learning disability or cognitive disease, (2) providing stimulants as a form of biological interventions for crime prevention (Douglas 2014; Vincent 2014; McMillan 2013; Shniderman et.al 2015), or (3) providing stimulants to create opportunities for socially disadvantaged individuals (Ray 2016) or enhance capabilities for socially disadvantaged individuals (Nam 2015).

how we can generate new ways of assisting inmates, who are some of the most disadvantaged members in society. One theory of social justice, luck egalitarianism, aims to equalize the distribution of resources to those who face inequalities that are due to specific kinds of luck. In particular, a luck egalitarian would argue that inmates would not be able to receive compensation. However, I will be arguing otherwise- that inmates are a candidate of distributive justice. Given the unjust inequalities and harms many inmates face, we ought to see how we can find ways to improve their well-being.

Well-Being and Enhancement

Briefly, I would like to provide how I will understand enhancement and well-being. Various definitions of enhancement exist in the enhancement literature. I will be using one such term called the welfarist approach. Enhancements, under the welfarist definition, is “any change in the biology or psychology of a person which increases the chances of leading a good life in the relevant set of circumstances.”⁷ This means that if stimulants can increase the chances of an inmate leading a good life by promoting their overall well-being, then it can be counted as an enhancement.

On the contrary, if stimulants are not beneficial to a prison inmate’s overall well-being, then they cannot be counted as an enhancement even if the inmate’s capacities go beyond normal functioning.⁸ Philosophers usually define well-being as that which is ultimately beneficial for a person. However, there are various theories that attempt to explain what is ultimately good for a person. For example, desire fulfillment theory

⁷ Savulescu, ter Muelen, Kahane. *Enhancing Human Capacities*, 7.

⁸ Kahane, Savulescu, Sandberg, *Enhancing Human Capacities*, 6. The functional approach is defined in terms of enhancing human functions such as cognitive functions. Essentially, a functional approach would say that cognitive enhancement is defined just as improving a person’s general processing abilities.

argues that what fulfilling our preferences is beneficial to our wellbeing. An objective good theory of well-being would argue that establishing intimate relationships, being a productive worker and learner allows people to live a good life which thus promoting our well-being.⁹ Nonetheless, there is a commonality amongst these and other theories of well-being, and that is it focuses on building the characteristics and traits necessary for improving a person's life. I will show that stimulants may be able to promote and improve an individual's wellbeing.

Inmates and Current Traditional Enhancement Programs

The United States contains the largest prison population in the world, 2.2 million inmates distributed within local, state, and federal facilities. Within this population, the people who live in poverty have substantially higher incarceration rates according to a 2015 report from the Prison Policy Initiative.¹⁰ Even more problematic is a statement from a 2014 U.S. National Research Council Report which states the following:

Many people enter prison with educational deficits and could benefit from education while incarcerated. Literacy rates among prisoners generally are low, and substantially lower than in the general population... Over the past 40 years, the percentage of prisoners having completed high school at the time of their incarceration fluctuated between about one-quarter and more than one-third for state prison inmates, with higher rates for those housed in federal facilities.¹¹

Low educational attainment introduces many problematic dimensions. For example, cognitive scientists have shown that a lack of cognitive training controls for poor memory retention, poor decision-making skills when faced with dilemmas, and a lack of

⁹ Julian Savulescu and Guy Kahane. "The moral obligation to create children with the best chance of the best life." *Bioethics* 23, no. 5 (2009): 274-290. doi: 10.1111/j.1467-8519.2008.00687.x

¹⁰ Bernadette Rabuy and Daniel Kopf, "Prisons of Poverty: Uncovering the Pre-incarceration Incomes of the Imprisoned," Prison Policy Initiative, July 9, 2015, <https://www.prisonpolicy.org/reports/income.html>.

¹¹ Jeremy Travis et.al. *Growth of Incarceration in the United States: Exploring Causes and Consequences*. (Washington, District of Columbia: National Academies Press, 2014).

impulsivity control, which can be an obstacle for a person's overall well-being.¹² Not controlling for these vital skills can also impede the rehabilitation process for inmates. In order to help correct these issues, the federal government began implementing prison education and vocational programs in prisons around the 1960's.

Funded by the Department of Justice, a 2014 study meta-analysis of 267 studies conducted by the RAND Corporation, provided evidence of a correlation between prison education and a decrease in recidivism. There were approximately a 43% lower odds of recidivating for prisoners who participate in a successful prison program compared to inmates who do not participate in a prison education program. Evidence also suggests there is an increase in post-employment and an increase in an inmate's mathematics and literacy skills for those participating in these programs.¹³

These programs assist inmates by providing them with education while serving time and providing tools for preparing inmates after release in order to decrease recidivism rates. The Department of Education under the Obama administration had also announced that 67 participating colleges and universities would receive Pell grants to be distributed to inmates to give them the opportunity to pursue post-secondary education and subsequently be able to find work to support themselves and their family.¹⁴ However, since their creation, funding to sustain these programs and Pell grants has fluctuated.

¹² Jesse, eMeijers, et al. "Prison brain? Executive dysfunction in prisoners." *Frontiers in Psychology*, vol.6 (2015) doi:10.3389/fpsyg.2015.00043/full.

¹³ Louis M. Davis et al., "How Effective Is Correctional Education, and Where Do We Go from Here? The Results of a Comprehensive Evaluation," Rand Corporation, accessed October 3, 2017, https://www.rand.org/pubs/research_reports/RR564.html.

¹⁴ "U.S. Department of Education Launches Second Chance Pell Pilot Program for Incarcerated Individuals," U.S Department of Education, accessed October 3, 2017. <https://www.ed.gov/news/press-releases/us-department-education-launches-second-chance-pell-pilot-program-incarcerated-individuals>.

Additionally, as I will show, these traditional enhancements may not be enough to provide the opportunities that inmates need to succeed outside of prison.

Traditional Enhancement Programs in Prisons

Enhancement programs in prisons are typically administered in two ways – vocational training, and educational development. The former programs include the secondary career technical education (non-degree training program), and the post-secondary CTE program.¹⁵ The programs are dedicated to training participants for technical jobs, which vary from welding, barbership, electrical trade, and others. The latter programs include adult basic education (ABE) and adult secondary education (ASE). These programs resemble a traditional form of education received in a classroom with emphases on reading comprehension and mathematics.

Although both programs have provided benefits for inmates, researchers continue to try to figure out ways of improving the programs since they are not without their negative counterparts, according to Louis Davis, the lead project and a senior policy researcher at RAND Corporation.¹⁶ What is known is that various issues can affect an inmate's success in these programs. Learning difficulties (non-disabilities), budget cuts, quality of programs, insufficient teachers, an inmate's interest in the offered program, and time constraints are just some of the obstacles that prison education programs face.

¹⁵ CTE programs are known as Post-secondary career and technical education programs.

¹⁶ "Rand Corporation," Education and Vocational Training in Prisons Reduces Recidivism, Improves Job Outlook", Rand Corporation, August 22, 2013, <https://www.rand.org/news/press/2013/08/22.html>. A meta-analysis by the RAND Corporation was conducted to see the effectiveness of correctional educational programs which were limited to only United States programs that contained an academic and vocational curriculum. Due to overlaps in the curriculums of various programs as well as the absence of information on instructional time has made it difficult to calculate which program is the most beneficial for an inmate.

In a study 2014 which surveyed the skills, quality of educational programs offered for incarcerated adults conducted by the US Department of Education, twenty percent of incarcerated adults who did not want to enroll in a prison academic program stated that the programs offered in the facilities they resided in were not beneficial or were of poor quality.¹⁷ It may be the case that inmates have recognized some problems with these programs. Educational skills also are not the only things to be accounted for when rehabilitating inmates. One must also account for the physical and mental obstacles that inmates face during their time in a prison program as it can affect the rehabilitation process of an inmate.¹⁸

A limited amount of time and resources, unproductive environments, biological and psychological obstacles can hinder an inmate's ability to promote their wellbeing. For example, sociologist John Wooldredge conducted a study which examines how prison inmates' psychological well-being can be influenced by varying factors, namely, participation in educational or vocational programs, social interactions, and their mental states.¹⁹ According to the study, being deprived of opportunities to improve one's self can inhibit an inmate's rehabilitation process. This is typically known as prisonization or "institutionalization," where negative psychological adaptations occur in inmates.

Distrust among prison personnel, emotional over-control, alienation, isolation, diminished self-worth and diminished personal value are all problems that affect inmates.

¹⁷ U.S Department of Education, National Center for Education Statistics: Highlights from the U.S. PIAAC Survey of Incarcerated Adults: Their Skills, Work Experience, Education, and Training Program for the International Assessment of Adult Competencies, 2014.

¹⁸ John H. Esperian. "The Effect of Prison Education Programs on Recidivism." *Journal of Correctional Education* 61, no. 4 (2010): 316-334. Accessed September 7, 2017. <https://www.jstor.org/stable/23287264>.

¹⁹ John D. Wooldredge. "Inmate experiences and psychological well-being." *Criminal Justice and Behavior* 26, no. 2 (1999): 235-250. doi: <http://dx.doi.org/10.1177/0093854899026002005>.

As a result, the opportunity for an inmate to improve their well-being can be drastically impeded. Despite these issues, there are ways to correct for them. Cited in the Wooldredge study, providing more opportunities for self-improvement, stimulation via participation in activities, and having more autonomy can help inmates navigate their time in prison in order to gain control of their lives.²⁰ Furthermore, the gains in benefits need not only be limited to the individual. An individual's overall well-being can also extend to promoting/producing societal goods such as producing responsible, autonomous citizens that are able to contribute to the growth of society via jobs and possibly alleviate some social injustices within their communities.

Given the difficulties that prison programs face, and given the need to help inmates succeed despite overwhelming obstacles, it seems we should not conform to only some enhancements but expand our options for enhancements. That is, we ought to seek out potential ways to aid these traditional forms of enhancement where they are lacking or where they are not fully functional. This may provide inmates the most opportunities to improve their well-being. I suggest that we should turn our attention to cognitive interventions in the form of pharmaceutical stimulants as a new form of enhancement if in fact it can be shown to increase people's well-being.²¹

I am not arguing that stimulants should replace educational and vocational programs. The ideal goal would be a change in policy across economic, judicial and societal institutions; however, fixing these deeply rooted issues in our society will take much time and can be costly, though well worth it. Instead, for prisons that do offer these

²⁰ *ibid*, 237-238.

²¹ I will be using cognitive intervention, stimulants, and cognitive enhancements interchangeably, but all three are similar.

programs, I argue that stimulants might be another effective tool which can further provide opportunities for success and promote the well-being of inmates that they would not have otherwise. Therefore, I argue that we have a moral obligation to see how stimulants can be used to help those who are the most disadvantaged members whether or not it is a fault of their own.

Cognitive Enhancing Interventions

Undoubtedly, access to enhancements is in most instances within our immediate reach. Education, nutrition, learning mnemonics, exercise, and access to technologies are just some of the few enhancements we frequently use to optimize our cognitive functions. As biomedical science progresses, so do our options for enhancing ourselves. One such example of cognitive interventions that are growing at a fast rate is pharmaceutical stimulants. According to a news report published by the IBIS World market research firm, attention deficit hyperactive disorder (ADHD) medications have projected a take in of \$17.5 billion in the year 2020 making this category of pharmaceuticals one of the tops in its industry.²² Specifically, the increase in individuals diagnosed with ADHD has created an enterprise for stimulants. Individuals who are diagnosed with ADHD are characterized as being inattentive, hyperactive and impulsive, which may cause significant impairments.²³

ADHD is commonly associated with poor academic performance, namely, low reading and math standardized test scores, as well as an increase of rates in school

²² Kelsey Oliver, "ADHD Medication Manufacture in the U.S", IBIS World, December 2017, <https://www.ibisworld.com/industry-trends/specialized-market-research-reports/life-sciences/prescription-drugs/adhd-medication-manufacturing.html>

²³ Wolraich M.L. (2016) *Attention Deficit Hyperactivity Disorder*. In: Rubin I.L., Merrick J., Greydanus D.E., Patel D.R. (eds) "Health Care for People with Intellectual and Developmental Disabilities across the Lifespan". Springer, Cham.

punishments such as detention and expulsion, which ultimately can lead to relatively low high school graduation and post-graduation rates.²⁴ Stimulants, such as Ritalin, Adderall, Vyvanse, and others are prescribed in order to allow those with ADHD or other cognitive disabilities to control their cognitive functions better and give them improved memory retention, improved attention spans, and being able to control responses to stimuli flexibly.²⁵ These cognitive interventions are not only limited to benefiting individuals with cognitive disabilities.

Ritalin has shown improvements in spatial working memory tests in healthy volunteers, has been shown to increase working memory in participants with low baseline memory capacity, and furthermore suggest that some types of cognitive enhancements can be more beneficial to those who might be at a lower starting point than those who already possess high levels of cognitive functioning abilities.²⁶ Another pharmaceutical cognitive intervention, Modafinil, has been making the stimulant scene as a fairly successful stimulant. A treatment which was originally developed for narcolepsy, Modafinil is being studied for its cognitive enhancing effects.

In a study done to investigate the effects of Modafinil on working memory processes in healthy volunteers with no disorders or without sleep deprivation, the subjects were given Modafinil. The results of the study showed that Modafinil has subtle

²⁴ Irene M. Loe, and Heidi M Feldman. "Academic and educational outcomes of children with ADHD." *Attention-Deficit/Hyperactivity Disorder* no. 6 (2007): 643, accessed October 8, 2017, <http://pascal-francis.inist.fr/vibad/index.php?action=search&terms=18950050>.

²⁵ Henry Greely, et al. "Towards responsible use of cognitive-enhancing drugs by the healthy." *Nature* 456, no. 7223 (2008): 702-705, accessed November 15, 2017, <http://dx.doi.org.libproxy.txstate.edu/10.1038/456702a>.

²⁶ Mitul Mehta, and Adrian Owen. "Methylphenidate enhances working memory by modulating discrete frontal and parietal lobe regions in the human brain." *Journal Of Neuroscience* 20, no. 6 (n.d.): accessed December 2, 2017.

stimulating effects on “maintenance and manipulation processes in relatively difficult and monotonous working memory tasks, especially in lower performing subjects.”²⁷ Similarly, Modafinil has been shown to increase visual pattern memory recognition, reaction time/latency on various working memory tasks²⁸, and enhances perceptual processing speed in participants with low baseline performance.²⁹ In addition to the scientifically based research, there are also various positive anecdotal experiences of stimulant use by students without any cognitive disabilities. Students will typically use stimulants to perform better on tests, assist in all night studying sessions, improve alertness, and to increase activity and performance.³⁰ Some individuals use stimulants to overcome obstacles impeding their success. For example, if a student has a difficult time sitting down and concentrating on an exam, they may take stimulants to help them work more efficiently. In some instances, an individual may be overwhelmed by the amount of work they must complete in a limited amount of time, so they use stimulants to boost their performance.

Although stimulants have a big presence and usage in the university environment, they are also being used by company executives, lawyers, and even Wall Street personnel

²⁷ Ulrich Muller, et al. "Effects of modafinil on working memory processes in humans." *Psychopharmacology* 177, no. 1/2 (2004): 161-169, accessed August 17, 2017, <https://www.ncbi.nlm.nih.gov/pubmed/15221200>.

²⁸ Danielle C. Turner, et al. "Cognitive enhancing effects of modafinil in healthy volunteers." *Psychopharmacologia* no. 3 (2003): 260, accessed October 18, 2017, <http://pascal-francis.inist.fr/vibad/index.php?action=search&terms=14579928>.

²⁹ Kathrin Finke, et al. "Effects of modafinil and methylphenidate on visual attention capacity: a TVA-based study." *Psychopharmacologia* no. 3 (2010): 317, accessed October 14, 2017, <http://pascal-francis.inist.fr/vibad/index.php?action=search&terms=22839167>

³⁰ Alan Schwarz, “In Their Own Words: ‘Study Drugs,’” *New York Times*, updated June 13, 2012, <https://archive.nytimes.com/www.nytimes.com/interactive/2012/06/10/education/stimulants-student-voices.html>.

as tools to boost performance to tackle long and intense work days.³¹ Students, lawyers, and executives aren't the only individuals with long and arduous work days. They are not the only individuals working to improve their well-being whether it be via work, education or other means. Inmates, despite being incarcerated, also seek to improve their well-being. However, as mentioned earlier, they face serious obstacles. A lack of basic workplace skills,³² low educational attainment,³³ and a limited amount of rehabilitation time are all factors that affect an inmates chances of improving their lives.³⁴

The ideal would be to provide additional and better quality educational and vocational programs. It would be even more ideal for programs to set up plans or goals that inmates can use as guidance as part of their rehabilitation. These are tall orders that will require reconsidering economic policies, functions of educational and prison institutions, and potentially a re-evaluation of our values and judgments of prisons. But, while we figure out how to handle these complex issues, inmates will be carrying the weight of trying to succeed and potentially suffer severe, severe consequences such as recidivism.

What then ought we to do to remedy these disadvantages that inmates face? If it

³¹ Robert Kolker, "The Real Limitless Drug Isn't Just for Life Hackers Anymore," *New York Mag*, March 31, 2013, <http://nymag.com/news/intelligencer/modafinil-2013-4/>.

³² "Citing Prison Inmate Literacy Study, King Calls for More High-Quality Education Programs in Correctional Facilities," U.S Department of Education, accessed November 24, 2017, <https://www.ed.gov/news/press-releases/citing-prison-inmate-literacy-study-king-calls-more-high-quality-education-programs-correctional-facilities>

³³ Christopher Zoukis, "The Importance of Effective Correctional Education", <https://prisoneducation.com/resources/prison-research-papers/the-importance-of-effective-correctional-education/>.

³⁴ Nicole Lewis, "Reviewed Under Obama, Pell Grants for Prisoners Expires Soon", *ABA Journal*, http://www.abajournal.com/news/article/revived_under_obama_pell_grants_for_prisoners_program_expires_soon/. There has also been discussions on cutting down Pell grants that are given to inmates to support the expensive educational programs offered in prisons.

is, as research suggests, that stimulants are helping to improve cognitive capacities that allow individuals to become more productive members in society, we ought to see whether stimulants may be a tool that can improve an inmate's ability to work through these disadvantages. As I mentioned earlier, stimulants should not be taken as the answer to an inmates' problems. However, the possible avenues that can help an inmate are not being pursued and so we ought to look for other means of assisting inmates, and I believe stimulants may be a good candidate.

In order to make the claim that inmates are good candidates for receiving stimulants if in fact they can be shown to benefit inmates, it must be shown why we should distribute these resources to a population, which generally would not receive them. In the following section, I will examine the luck egalitarian stance which aims to find how goods can be distributed in order to meet an appropriate standard of equality. I will begin with a brief examination of luck egalitarianism. Secondly, I will critique a crucial distinction that luck egalitarians use as the basis for who is considered to receive compensation: brute luck and option luck. Luck egalitarians use this distinction between option luck and brute luck, each of which determines how resources will be justly distributed.

Luck Egalitarianism and Social Justice

Luck egalitarianism considers what a just allocation of resources ought to be. In particular, luck egalitarianism is a distributive theory of justice that aims to counteract the distributive effects of a particular kind of bad luck. Our economic status, class, and race are examples of consequences of luck, choice or both. By luck, luck egalitarians mean to say that in some instances there are things outside of our control, which can affect our

resources and our social and economic standing. We do not choose to be born into a specific race, community, or with certain biological features. Luck egalitarians aim to neutralize the distributive effects of specific kinds of luck. In particular, luck egalitarianism focuses on two types of luck: brute luck and option luck. Ronald Dworkin, a founder of luck egalitarianism, states that

Option luck is a matter of how deliberate and calculated gambles turn out—whether someone gains or losses through accepting an isolated risk he or she should have anticipated and might have declined. Brute luck is a matter of how risks fall out that are not in that sense deliberate gambles (73).³⁵

Luck egalitarians like Dworkin make further distinctions between the types of option luck and brute luck. There is good option luck and good brute luck, and there are bad option luck and bad brute luck. An example of good option luck is a person who buys a share of bitcoin cryptocurrency and has an increase in their value. On the other hand, bad option luck is buying bitcoin cryptocurrency and experiencing a decrease in the value of the currency. An example of good brute luck is being born into a wealthy and stable family and community or being born without any genetic diseases. An example of bad brute luck is a person being struck by lightning.

With this distinction in mind, Dworkin argues that only those who have bad brute luck are due assistance under the premise that equality of resources is provided as background conditions. In cases where two people gamble, where the winner has good option luck, and the loser has bad option luck, there should be no redistribution of resources, since the difference is caused by a risk which both individuals chose to partake in but could have declined. However, an individual can reap the benefits of good option luck, but cannot seek compensation for bad option luck. By compensation, I mean to say

³⁵ Ronald Dworkin, *Sovereign Virtue*, (Cambridge MA: Harvard University Press, 2000).

that, as a matter of justice, luck egalitarians would distribute resources to those who have suffered bad brute luck to neutralize the effects of bad luck.

For Dworkin, the brute luck/option luck draws the line between what states of being and activities call for redistribution and luck that does not require compensation. In cases where someone faces inequalities due to bad brute luck, a luck egalitarian theory of distributive justice would distribute goods such as resources, welfare, and opportunities. Given the luck egalitarian stance on bad brute luck, I believe this framework requires a close examination of prisoners, a population that I argue should receive a distribution of resources, even though initially it may not be clear why they should be considered for compensation within luck egalitarianism.

As mentioned earlier, a luck egalitarian argues that only those affected by bad brute luck should receive compensation, while those who have bad option luck should not be compensated. In the case of inmates, one might argue that inmates make choices that place them in prison, i.e., a consequence of bad option luck, so they should not receive compensation. However, the luck egalitarian distinction between brute luck and option luck quickly dismisses the intricacies and complexities of many inmates' choices and circumstances prior to incarceration.

Evidence in the fields of law, sociology, economics, and political science suggests that inmates especially those who come from already disadvantaged communities are in many instances incarcerated due to circumstances beyond their control. That is, their option luck has been strongly affected by bad brute luck. It is not difficult to imagine how brute luck can affect an individual's option luck. Various conditions such as class and upbringing can negatively or positively affect how individuals evaluate and make life

choices. In other words, people make choices based on evaluating the options they have, where those options are often influenced by their surrounding circumstances.

For example, a mother who lives in a poor community who has to choose between paying parking fines or bringing food to the table for her children can evaluate her options and make a choice, but present circumstances can strongly influence a choice she may or may not want to make. What choices people decide to make and the bad brute luck that creates those choices is especially important because choices are assigned certain differing levels of responsibility.

With Dworkin's contribution to luck egalitarianism, the idea of choice and responsibility is more apparent. As commonly mentioned by luck egalitarians, "Dworkin has, in effect, performed for egalitarianism the considerable service of incorporating within it the most powerful idea in the arsenal of the anti-egalitarian right: the idea of choice and responsibility."³⁶ The relationship between choice and responsibility in luck egalitarianism serves as a bridge for what types of inequalities should be remedied.³⁷

Only those inequalities that are a result of bad brute luck ought to be neutralized, while those inequalities that are a result of bad option luck should not be. This implies that each person is responsible for the choices they make and the consequences that are derived from them. A problem for luck egalitarians is distinguishing between those

³⁶ G.A. Cohen and Michael Otsuka. *On the Currency of Egalitarian Justice, and Other Essays in Political Philosophy*. (Princeton, N.J.: Princeton University Press, 2011) 933.

³⁷ Dworkin, *Sovereign Virtue*, 322. "People's fates are determined by their choices and their circumstances. Their choices reflect their personality, which is itself a matter of two main ingredients: ambition and character... Someone's ambitions include all his tastes, preferences, and convictions as well as his overall plan of life: his ambitions furnish his reasons or motives for making one choice rather than another... Someone's character consist of those traits of personality that do not supply him with motives but that nevertheless affect his pursuit of his ambitions... Someone's circumstances consist of his personal and his impersonal resources."

actions that are a result of option luck or brute luck and whether or not someone can be considered morally responsible for those actions. In the case of a large population of inmates who mostly come from disadvantaged communities, their circumstances of birth or circumstances of being part of a heavily concentrated incarcerated population can drastically affect their option luck. As a result, the relationship between option luck and brute luck changes the dynamic of what responsibility entails. The connection between option luck and brute luck creates and influences the choices that can lead to arrest and incarceration. It then seems that while inmates can be considered legally responsible it is a stretch to say that they are also equally or fully morally responsible.

Noted by La Vigne and colleagues, there are specific factors that disproportionately affect disadvantaged communities and maintain those inequalities.³⁸ Limited resources, social and financial capital, are common factors that affect disadvantaged communities. Continuous hyper-policing in disadvantaged communities is also a reoccurring problem that plays a role in both the economic struggle of those communities and the rates of incarceration, where the latter can affect the former.³⁹

Hyper-policing can create distrust between communities and officers as well as influence biases and prejudices towards certain groups of people and can lead to higher arrest rates even for minor infractions. It creates a form of structural violence- one that also links harms to health and community fragmentation.⁴⁰ The families who live in these impoverished neighborhoods also have higher rates of crime, and also increases the

³⁸ Nancy G. La Vigne, Jocelyn Fontaine, and Anamika Dwivedi. 2017. "How Do People in High Crime, Low-income Communities View the Police?" Washington, D.C: Urban Institute.

³⁹ High risks of crime in these communities is a factor taken into account for over-policing.

⁴⁰ Marisela B. Gomez. "Policing, Community Fragmentation, and Public Health: Observations from Baltimore." *Journal Of Urban Health: Bulletin Of The New York Academy Of Medicine* 93 Suppl 1, 154-167. doi: 10.1007/s11524-015-0022-9.

likelihood of a family member being incarcerated, which creates further racial disparities and stigmatizations, especially for African Americans.

With high imprisonment rates also follows disruption in the social, financial and ecological relationships that are necessary for the proper development of youth and thus perpetuate crime instead of preventing crime in poor communities.⁴¹ Simply, removing large numbers of working-capable women and men from those communities can hinder the necessary financial, social and ecological growth that is needed to create stable communities. The effects of incarceration also reduce the social and economic opportunities for those who have not had any contact with the criminal justice system.

A study conducted by Sabol and Lynch showed that as incarceration rates increased in a given county, an increase in unemployment rates followed for the county's non-incarcerated African Americans.⁴² This example, I believe clearly shows how bad brute luck even affects option luck that may not have even been 'bad.' Other factors also affect the increase and maintaining of high incarceration rates of disadvantaged communities: police traffic stops without suspicion, stop & frisk rules⁴³, unpaid traffic stop fines for which poor people cannot afford to pay⁴⁴, the war on drugs,⁴⁵ the faulty bail

⁴¹ Todd R. Clear., et al. "Coercive Mobility and Crime: A Preliminary Examination of Concentrated Incarceration and Social Disorganization." *Justice Quarterly* 20, no. 1 (2003): 33-64. <https://doi.org/10.1080/07418820300095451>.

⁴² James Lynch P.1, and William J.2 Sabol. "Assessing the Effects of Mass Incarceration on Informal Social Control in communities." *Criminology & Public Policy* 3, no. 2 (2004): 267-293. <https://doi.org/10.1111/j.1745-9133.2004.tb00042.x>.

⁴³ See *Floyd v. City of New York*, 813 F. Supp. 2d 417.

⁴⁴ Timothy Williams, "Economic Disparity is seen in California Driver's License," *New York Times*, April 8, 2015, <https://www.nytimes.com/2015/04/09/us/disparity-is-seen-in-california-drivers-license-suspensions.html>.

⁴⁵ American Civil Liberties Union, "Report: The War on Marijuana in Black and White, accessed January 30, 2018, <https://www.aclu.org/report/report-war-marijuana-black-and-white>.

system⁴⁶, and the lack of adequate public defense for poor people⁴⁷ are all factors that maintain the oppression and inequalities of the poor who have a high chance of being or remaining incarcerated.

Although one may argue that all criminals are dangerous people who need to be incarcerated for the safety of society, it is not always the case that this is true. The Vera Institute of Justice notes that nearly 75% of the hundreds of thousands of people in local jails are incarcerated due to nonviolent offenses such as drug offenses, public offenses, traffic, and property offenses.⁴⁸ Taking this evidence, which is just one part of many other factors that strongly affect the choices made by incarcerated individuals, should make us re-evaluate the moral responsibility and culpability we place on inmates.

Under luck egalitarianism, it is unjust for bad brute luck to determine the opportunities available to persons who may not be responsible for their position. In the case of many inmates, how morally responsible they can be traced back to bad brute luck. If an inmate's choices are strongly influenced or are a result of bad brute luck, then they should receive a distribution of resources and opportunities. But it seems luck egalitarians may deny compensation to inmates due to bad brute luck given their bad option luck. Therefore, L.E is allowing bad brute luck to determine the opportunities available to inmates. It then seems that we have an obligation to seriously consider providing resources and opportunities to inmates who are affected and are in their position due to

⁴⁶ Nick Pinto, "The Bail Trap," *New York Times*, August 13, 2015, <https://www.nytimes.com/2015/08/16/magazine/the-bail-trap.html>.

⁴⁷ Sixth Amendment Center, "Actual Denial in Misdemeanor Courts". <http://sixthamendment.org/wp-content/uploads/2015/05/Actual-Denial-of-Counsel-in-Misdemeanor-Courts.pdf>.

⁴⁸ Ram Subramanian, et al. "Incarceration's front door: The misuse of jails in America." (Washington, DC: The Vera Institute of Justice).

bad brute luck.

At this point, I have presented an issue in regards to our prison population. The issue is that we have a population of people who more often than not belong to poor communities, which continuously face social inequalities, are disproportionately incarcerated, and then expected to improve while in prison with extremely limited resources and opportunities. If this is not enough to raise concerns, we expect inmates to improve in time for release and perform well in educational and vocational training even though quite a large percentage of the inmate population lacks any formal educational training⁴⁹ and have extremely low literacy rates.⁵⁰ This has led me to suggest stimulants as a potential resource for distribution if, in fact, research shows promise of their effectiveness.

Awareness of what is at stake when we deny inmates a chance to pursue their own well-being is morally problematic if there is evidence of unjust harms being placed on them. There are those who have taken notice of the social disadvantages that people in disadvantaged communities face and have taken steps in order to remedy some problems. For example, Dr. Anderson, whose story is commonly cited story in the cognitive enhancement debate, provided prescriptions to children of low-income families, not for the sake of fixing a cognitive disorder, but instead to remedy social disadvantages that

⁴⁹ Caroline W. Harlow and Washington, DC. Bureau of Justice Statistics. *Department of Justice*. "Education and Correctional Populations. Bureau of Justice Statistics Special Report." (2003): accessed April 7, 2018. <https://eric-ed.gov.libproxy.txstate.edu/contentdelivery/servlet/ERICServlet?accno=ED477377>. "About 41% of inmates in the nations State and Federal prisons and local jails in 1997 and 31 % of probationers had not completed high school.

⁵⁰ It is equally important not to dismiss those prison education and vocational programs that have improved the quality of life of some inmates, and also have reduced recidivism, but we should not be only contempt with the bare minimum when what more can be done to assist an inmate is within our reach.

these students face.⁵¹ This was a way to level the playing field for those families and students who do not have access to costly services such as tutoring or counseling. Could the same goal Dr. Anderson has in mind be applied to inmates?

Theoretically, providing stimulants as a way to increase the opportunity for inmates to improve their well-being is not only to level the playing field for inmates, but it provides them the chance to be considered a player. This is crucial given that prisons can in some instances prevent them from doing so. Dr. Anderson was met with disapproval, and the same can probably be said for my proposal, yet it is not clear why pharmaceuticals should be discarded completely off the table as tools that can remedy issues of social justice, especially when biomedical technology can provide many advantages that traditional forms of enhancement are not able to.

Objections

Objection 1: Inmates should be Held Responsible for their Choices

It may be argued that those individuals in poor communities who make choices that land them in jail are responsible for their choices because they could have chosen not to perform actions that result in incarceration. That is inmates have options from which to choose from, but they choose wrongly. Furthermore, it can be argued that there are individuals who come from those same communities do not commit actions that land them in jail where some even succeed in getting away from the poor communities. However, simply having choices is not equivalent to having a diverse set of options with diverse consequences, from which to choose from. That is, if all the options you have to

⁵¹ Alan Schwarz. "Attention Disorder or Not, Pills to Help in School." *New York Times*, October 9, 2012. <https://www.nytimes.com/2012/10/09/health/attention-disorder-or-not-children-prescribed-pills-to-help-in-school.html>.

choose from are poor options or options that have bad consequences where some are much worse than others, then it may seem problematic to say there are morally responsible for choosing a bad option when there was nothing accessible and good to choose from.

These negative consequences also are not limited to the individual who is making a choice. These choices will also affect others in significant ways. In a short documentary titled *The Grey Area*, which closely examines women's issues in the criminal justice system, it was consistently and clearly noted that many women who are incarcerated have long histories of being physical, sexually, and emotionally abused. In many cases, these women attempted to escape the abuse they faced but ended up unfairly being both a victim and the perpetrator of a crime which leads to their incarceration.⁵²

Objection 2: Medicalizing Crime via Enhancements

In this objection, opponents of providing stimulants to criminal offenders medicalize the issues of crime. In other words, criminal behavior, if medicalized, enforces the idea that criminal behavior separates criminals from the rest of the society. That the problem with criminality lies within the offender and not society forces one to say that the only change required is in the criminal and not faulty institutions set in place. As I have shown earlier, certain social institutions we have, perpetuate injustices that inmates face both in and out of prison.

Additionally, inmates who come from disadvantaged communities tend to stay in those same positions because of the negative affects of social inequalities. Therefore, if we are to provide stimulants to inmates, this will blind us of the root causes of

⁵² *The Grey Area*, DVD, directed by Noga Ashkenazi (2012; Mitchelville, IO: Women Make Movies).

inequalities, and as such, society is will no longer have to be responsible for attempting to fix these inequalities.⁵³ This is very true. We should not be blind to the inequalities that stem from societal issues. But, this statement seems to be a cop-out for the issues that can make individuals likely to recidivate. If an inmate is not provided the tools – in this case, stimulants – to become autonomous and responsible citizens, simply on the ground that there are other problems that can prevent them from doing so, then the cycle of disadvantages is pushed further.

If we are to act as if these influences do not have any force, we would only be playing the part of disadvantaging inmates further. Equally, an inmate may be aware that his condition might be due to the injustices that he/she has faced in their own community and while incarcerated. As such, their goal, if they are to want to promote their wellbeing, will be to ameliorate both social and biological obstacles they face.

Objection 3: Coercion of Inmates

A major concern within the enhancement debate is the issue of potential coercion between the state or court and its relationship to an inmate. There is a dark history concerning the treatment and rights of prisoners in that prisoners have been abused, experimented on, neglected, where some immoral and unjust acts still continue today.⁵⁴ Specifically, the worry and a justified one is that in the same way we have court-mandated sentences, it seems plausible that court-mandated interventions will also be

⁵³ A similar objection is raised against Ray (2016) wherein providing stimulants to disadvantaged students medicalizes a social problem. Although Ray does not challenge the claim that stimulants medicalize a social problem "in so far as it identifies the problem of unlearned students in inadequate schools as a social problem and not a medical problem." But, Ray does challenge the claim that when an issue is identified, even if the issue turns out to be a social problem, stimulants can be a solution to social problems, by claiming that not all types of enhancements have to be explained in medical terms but can be explained through social terms.

⁵⁴ <https://www.hrw.org/united-states/criminal-justice>.

further pushed.

According to Chief Attorney, Sandra Norman-Eady in a research report on the castration of sex offenders, states such as Louisiana, Oregon, Montana, California, and others, now allow treatment as a form of punishment for specific sexual offenses. Furthermore, some states also make treatment mandatory for those who repeat an offense.⁵⁵ Recently, Sam Benningfield, a general session's judge in Tennessee promised reduced sentence time if inmates at the White County Jail undergo a vasectomy for men and a nexplanon implant for women, which would reduce their sentence by 30 days. One can see how problematic this can be for the individual. Offering a choice like seems like a clear violation of constitutional rights to autonomy and bodily integrity since a procedure of that sort would interfere with the ability of an inmate to make a fully autonomous decision of whether or not to have a child, since those individual inmates would not be in a strong position to reject the offer.⁵⁶

Given these concerns, what ought to be done? Considering my proposal, I would argue first and foremost that if we are to make any attempts to assist inmates, they must be respected as a rational human being who still has a stake within the moral community. Additionally, a policy that would allow cognitive enhancements to be prescribed in prison would also have to seek the free and informed consent of the inmate.⁵⁷ This will include that the department of corrections provides full information of what is at stake

⁵⁵ <https://www.cga.ct.gov/2006/rpt/2006-R-0183.htm>.

⁵⁶ Colin Dwyer, "Judge Promises Reduced Jail Time If Tennessee Inmates Get Vasectomies." <https://www.npr.org/sections/thetwo-way/2017/07/21/538598008/judge-promises-reduced-jail-time-if-tennessee-inmates-get-vasectomies>.

⁵⁷ The Thomas Pogge's Health Impact Fund is a fund which pools money together to guide the developments of specific drugs, which could ultimately assist in the development of new or better cognitive enhancing drugs that are designed to solve specific problems that disadvantaged issues face. <http://healthimpactfund.org/#firstPage>.

with these types of interventions, whether they should take them, benefits, drawbacks, and other potential options to seek for help. It should not be stated as ‘you should take this pill if you want us to reduce your sentence or not.’

This does not seem to get us out of the rut in which even if all information was expressed to the inmate so they can make an autonomous decision that there still isn’t coercion given the situation that the inmate is in. I would argue in response that while reaching a fully autonomous decision given the circumstances might be implausible, the allowance of trying to maximize the individual's autonomous decision by respecting his/her needs, and by providing information on the stakes of cognitive enhancements is a much better step towards not providing anything. Another common argument that is provided for mandatory treatment is that it can actually enhance autonomy. As Arthur Caplan states

Ironically, by restricting freedom or forcing them to do certain things, live in certain ways or acquire certain skills, they can become more autonomous.⁵⁸

Caplan makes the argument that mandated treatment is something acceptable and common within our society. For example, in academia, students are forced to go to class, complete certain tasks and other activities because doing so can build the students autonomy by becoming a more informed and rational individual. So in the case of inmates, administering mandatory treatment may both take away some autonomy but improve on it afterward. I do not buy this argument. First and foremost, the individuals outside of prison have much more freedom to make autonomous decisions, while inmates have very limited autonomy just in virtue of being an inmate and incarcerated. Secondly,

⁵⁸ Arthur L. Caplan. “Ethical issues surrounding forced, mandated, or coerced treatment”. *Journal Of Substance Abuse Treatment* 31, no. 2: 117-120. doi: <https://doi.org/10.1016/j.jsat.2006.06.009>.

a student has the option to pursue other schools or other courses and not have any severe consequences where an inmate who decides to lay off an educational program might have severe consequences.

Objection 4: Stimulants can perpetuate racial disparities

In this objection, there is a worry that because certain racial groups have been targets of institutional racism, if enhancements were provided to inmates, they would mostly be going towards these disadvantaged racial groups – mostly African American -, and would give off the idea that they are problematic groups that need to be “fixed”. I concede to this point that this may be problematic. However, whereas those racial groups who are targeted and arrested have no choice in the matter of being arrested, cognitive enhancements are not forced, but instead are options for assistance. It may also be, under a utilitarian approach, where even though specific racial groups are targeted, the ability to provide cognitive enhancements resources for the wellbeing of the inmate might outweigh their being targeted with stimulants. Additionally, the fact that certain racial groups are being targeted is a distinct and most necessary conversation than the debate of providing enhancements to inmates. Nonetheless, this cannot be ignored and should be further studied.

Conclusion

In this paper, I have argued that we ought to see how further research into stimulants to be provided to inmates is a just and possibly necessary action. As I have shown, inmates have a lot at stake in the enhancement debate and should not be dismissed simply by virtue of the individual is an inmate. If in fact, stimulants can help alleviate biological and social disadvantages, most of which inmates face at extreme

levels, then it seems we ought to explore how they can aid inmates during and post-incarceration. Furthermore, I would recommend that if a policy were to be established for providing inmates with stimulants, programs outside of prison should be created – if missing- or offered to inmates. This is crucial considering the effects that incarceration has on both the arrested individual and the community they come from.

For example, the effects of incarceration can perpetuate the disadvantages that poor communities already face. In a very important passage, Clear states,

[T]he effects on the individual of going to prison are well-documented. Ex-prisoners earn less money during their lifetimes, find it harder to stay employed, are less likely to marry, and suffer a range of medical and psychological problems... This is important ecologically as well because the ubiquity of prison touches almost everybody in these neighborhoods. Every family has a member who has limited labor-market options... For children in these neighborhoods, merely having a parent or brother who has gone to prison elevates their risk of doing the same in this way, incarceration serves as its breeding ground.⁵⁹

It is unjust that the effects of incarceration should derail an entire life, let alone an entire community. This should not block inmates from being a candidate for compensation. Educational and vocational programs offered in prisons are good ways to do this, and so stimulants for this population might be the best option, but it should also be extended to others who genuinely seek to promote their wellbeing. Ignoring such an important community by not providing them resources knowing full well the potential benefits stimulants may have is a moral failure that ought to be corrected. After all, inmates are part of the moral community even when incarcerated, and those who finish their sentences will return to our communities hoping to be accepted, and hoping to improve their wellbeing.

⁵⁹ Todd R. Clear. *Imprisoning Communities: how mass incarceration makes disadvantaged neighborhoods worse*. (New York : Oxford University Press, 2007).

Lastly, the conversation about prescribing stimulants to inmates should not just be discussed by philosophers, ethicist, and other professionals. Dialogue with inmates and the community about a potential policy like this is crucial if we are to take the debate on cognitive enhancements seriously. Not doing can further increase damages and distrust amongst community members and inmates.

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II. COGNITIVE ENHANCEMENTS AND VIRTUE ETHICS: ASSISTING INMATES' PATH TO THE GOOD LIFE

Introduction

The paper will explore the role of cognitive biomedical enhancements, specifically stimulants, as a tool that can aid in cultivating character and intellectual virtues, which can lead an individual towards a flourishing life. Particularly, I will be asking whether an Aristotelian virtue ethics framework would allow the use of stimulants for inmates who are enrolled in educational and vocational programs. This paper argues that an Aristotelian virtue ethicist would permit the use of stimulants⁶⁰ for inmates barring cases that are illegal and vicious. If it is the case that stimulants can assist inmates to become more virtuous beings that lead to the Aristotelian idea of a flourishing life, then they are morally permissible. I argue that stimulants are tools that can be used to cultivate virtues of character and virtues of intellect that are compatible with an Aristotelian virtue ethics framework. Given the intricacies of inmates and the complexities they face while incarcerated, I argue that it will be morally permissible for them to use stimulants.

Consider the following case: Paul is an inmate who has five years of his sentence left at his local prison. After a long period of reflection, Paul has accepted responsibility for his crimes. Paul is interested in improving his life while incarcerated and has sought help through the vocational and educational programs offered in his prison. Furthermore, once he has served his sentence, Paul hopes to return to his community and use his new skills and knowledge to give back and help his community. He has investigated and

⁶⁰ I will be thinking of stimulants such as Ritalin, Adderall, and Modafinil as my choice of cognitive enhancers.

found that these are the only educational opportunities available in his prison and he has made sure to be a diligent student while enrolled in his courses. However, Paul faces some constraints. He comes from a poor community that provided him with very little resources to help him succeed in life. Paul did not finish high school. He lacked any formal guidance from teachers and other professionals that could better prepare him for success in life. Like most inmates, Paul also has a strict daily schedule in prison. An inmate's typical day consists of a common routine: waking up 4:00 am, completing technical work, chores, taking educational courses, and other prison demands. Additionally, while an easy going individual, he must also look out for his safety in prison from potential abuse that occurs in prisons.

The case of Paul is not a hyperbolic scenario. In fact, this, among many other obstacles, are what a large portion of the prison population face.⁶¹ And for those inmates who are soon to be released from prison to their communities, it may be daunting to return to a world in which they may not be prepared. Paul has strong motivations for wanting to prepare himself to return to society but must overcome many obstacles. After all, Paul has exhausted many if not all of his opportunities in prison. He is enrolled in educational courses; he works, exercises daily, and makes sure to take care of his health. Paul recognizes that if he is to increase his chances of being successful outside of prison, he must put in the time with the opportunities currently available to him. While Paul has the motivation to create a new life that he believes will benefit his well-being, he may be lacking the support that can increase the possibility of being able to do so.

⁶¹ Jeremy Travis et.al. *Growth of Incarceration in the United States: Exploring Causes and Consequences*. (Washington, District of Columbia: National Academies Press, 2014).

The case of Paul and others like him lead to the main question: would it be morally permissible for inmates like Paul to take stimulants to improve his cognitive abilities and thus their character? In more practical terms, would it be unethical if Paul were to take stimulants that could allow him to overcome the obstacles of prison, improve his moral life and better prepare him for life outside of prison, and achieve a flourishing life? Aristotle's idea of a flourishing life comprises of a life of proper character development, and proper action doing. The journey towards the good life or a flourishing life provides a sort of "guide to life" Paul can lead, and stimulants could aid in promoting the cultivation of virtues of character and intellect that help pave the way towards a flourishing life. Therefore, I argue that if stimulants could bring Paul and those like him closer to leading a flourishing life, one that is compatible with Aristotle's conception of a virtuous, flourishing life, then it would be morally permissible.⁶² Paul, for example, could use stimulants to extend his productivity time, accomplish his goals of being a better student in his education programs, allow him to become a better deliberator and thus be better able to assess his surroundings better, or it may allow him to focus better amongst the pressures that are found in the prison environment.

In this paper, I will make certain assumptions. First, if inmates were to take stimulants, it would be done legally. Also, I am assuming the inmates do not have any diagnosed cognitive disabilities. Additionally, I am not making the case that stimulants are the ultimate tools that lead someone to the Aristotelian ideal of the good life. However, stimulants can be a useful and good resource that aids in the path towards the good life if other measures are taken. In the case of an inmate like Paul, who has

⁶² I will be using the terms flourishing life, happiness, the good life, and Eudaimonia interchangeably as they also signify the same thing according to Aristotelian virtue ethics.

exhausted his current options for improvement, stimulants may be the next step.

Furthermore, I am not arguing that stimulants ought to take the place of traditional enhancements such as education. However, stimulants may be provided as an additional enhancement tool. Lastly, stimulants, like most medications, come with side effects. With this in mind, I take it that the inmates who will be taking stimulants have had all side effects explained to them by a medical professional and understand the risks involved with taking stimulants. Given these assumptions, I also hope to set aside debates that will not be necessary for this project. This paper will not be involved in the treatment vs. enhancement debate, as it is not necessary to build a case for the moral permissibility of using stimulants via virtue ethics.

Why Virtue Ethics?

One advantage that an Aristotelian virtue ethics framework could provide to inmates is its emphasis on self-development-- something that people and especially inmates may benefit from. Where a moral, theoretical framework like Kantian ethics prescribes what moral laws one ought to follow, Aristotle's virtue ethics relies on the idea of trying to become the best person possible, and employs eudemonia as a goal. Eudaimonia (happiness) is not a specific state of being. In other words, it is not a specific instant in one's life; instead, it is an activity in which one is fulfilling their human function (reasoning), and doing so with virtuous character, and living a well-reasoned life.⁶³ While there are various interpretations of Aristotle's conception of the good life, this paper will not engage in those meta-ethical debates.

⁶³ We usually think of happiness as a specific state. However, for Aristotle, the eudaimonic life is constant activity. Eudaimonia requires evaluating an individual's entire life. To consider someone eudaimonic means that the individual has cultivated the intellectual and moral virtues, practiced them, engaged with their community, and balanced life well.

Although there are differences, they are not important for this project. What is important is to give reasons for why the type of life that Aristotle suggest can benefit inmates like Paul and what those benefits might be. Here is my reason: The kind of life that Aristotle suggest in his Nichomachean Ethics, I believe, is suitable for an inmate like Paul. I make this claim on the basis that inmates like Paul, who have come to accept responsibility for their crimes and are invested in their self-development, are already entering in large part of the virtue ethics project. Paul seems to be aware that – among other things- his prior problematic character landed him in prison in the first place and that the only way to avoid problematic character is to cultivate good character.

Engaging in virtue ethics can be challenging and must be done throughout one's life. This will require an individual to manage the competing difficulties in life. They must constantly navigate themselves through difficult circumstances – avoiding vices and promoting virtues. Virtue ethics is beneficial for Paul in that it promotes the type of lifestyle inmates may find useful to overcome the prison environment and to overcome psychological obstacles. Virtue ethics promote desirable traits such as temperance, responsibility, self-control, and a life of understanding. I believe this framework may be apparent in personal development programs offered in prisons, which offer ways for inmates to work on their well-being and thereby increasing the possibilities of promoting good citizens and reduce recidivism.⁶⁴

The good life for Paul then seems to be one that is going to provide him with the opportunities to become a better individual, i.e., to help him not be impulsive, to help him

⁶⁴ Hans Toch. *Living in prison : the ecology of survival*. [New York : Free Press, c1977]. “The more opportunities for self-improvement and activity offered combined with greater freedom of choice may help inmates find an appropriate niche in prison where they can achieve greater control in their environment.” Also, see Seymour (1982).

reason well, and to be a good deliberator. These among other characteristics are traits that a virtue ethics framework would promote, as they can lead to a flourishing life. If an inmate acquired these virtues, he might be better equipped with methods and tools for adapting to a wide array of circumstances. Prisons can be extremely destructive to a person's physical and mental health. I believe a strong statement in favor of Aristotle's virtue ethics is made for those inmates who struggle to overcome the detriments of prison. That is, to be able to overcome the difficulties in prison and seek motivation in prison requires a strong and virtuous character. Therefore, my argument is this: Aristotle lays out a plan that can lead to the good life, including an argument for desirable virtues, and I argue that stimulants can facilitate the path to the good life. Examining inmates and their goals of becoming better people from a virtue ethics standpoint then is useful for our discussion of the ways in which cognitive enhancements may be able to facilitate and promote virtuous character. Finally, in promoting virtuous character, one can lead towards a flourishing life.

Aristotle's Virtue Ethics

Aristotle's conception of the good life is quite different from our usual understanding of the good life.⁶⁵ Aristotle's good life is one in which individuals participate in activities such as establishing relationships, pursuing education to become excellent thinkers, and becoming virtuous people. But what exactly do these activities mean, and how do they contribute to the good life?

Aristotle's conception of the good life is a life of happiness. Happiness is "an

⁶⁵ C.D.C Reeve and Patrick Lee Miller, eds., *Introductory Readings in Ancient Greek and Roman Philosophy* (Indianapolis: Hackett, 2006), 305.

activity of the soul expressing complete virtue,” it is the good that people aim for.⁶⁶ The basic idea here is that humans have a function. That function is the ability to reason. With the ability to reason, human beings aim for fulfilling our function in the most excellent way, and one only does so if they contain all the virtues of that thing. In a more practical example, think of the work of a blacksmith. If one is going to be a most excellent blacksmith, you need to have knowledge of blacksmithing, but you also have to practice it, learning the ins and outs. It is not simply enough to have the knowledge and not practice, or vice versa.

With the capacity to reason, people have the ability to discern right or wrong actions, which allows humans to be virtuous or at least to understand virtuous character and actions. In other words, the good life⁶⁷ is living in accordance with reason, and virtues enable us to live in accordance with reason. As a result, the human good is “the soul’s activity that expresses virtue,” which leads to the excellence of a human being. Our ability to fulfill our function virtuously is what will lead us to a flourishing life. These virtues, which we must habituate are what I would like to focus on as I believe it is here where the role of stimulants can be better understood and most effective.

⁶⁶ Reeve and Lee Miller, *Introductory Readings*, 311.

⁶⁷ The best good for Aristotle, eudemonia (also labeled as happiness or a flourishing life). But, Aristotle’s conception of happiness is different from our usual understanding of happiness. There are many variations of what people conceive happiness to be. For example, one conception of happiness is gaining pleasure from obtaining material objects, wealth, and riches. However, Aristotle considers this form of “happiness” as pleasure sought by satisfying the senses (non-rational parts of the soul). Furthermore, Aristotle would argue that this conception of happiness fails on two accounts: a failure of not finding something that is good in itself, and a failure of separating our function from that of a non-human animal. By something that is ‘good in itself,’ it is to say that it is an end that we wish for because of itself, and furthermore, it is not chosen for something else. This is contrary to those who seek material wealth to achieve apparent happiness.

Virtues in Practice

There are two categories of virtue for Aristotle, each of which is necessary for our living a flourishing life. They are the virtues of character and virtues of thought.⁶⁸ Each of these can be developed through understanding and action - essentially learning from teaching, experience, and application. The virtues of thought are necessary for our ability to reason and reason well, while the virtues of character are – among other things - involved with rational control over what is known as the non-rational parts of the soul. We have different parts or levels of our self. At a base level, we are biological organisms that require basic needs/appetites such as food, health, pleasures, etc. But, we also have the function of rationality.

With the ability to reason, we come to understand ourselves and things about the world. We have the ability to plan out our lives, choose our educational discipline, hold certain values, set various goals, deliberate, etc. The ability to reason also extends to our character. Given that individuals have emotions and desires, we must also tend to them. We learn to be patient, practice self-control, establish relationships with other members of a community, we practice being temperate, and we strive to become hard workers.

This, according to Aristotle, means we must balance our ability to reason with our character, emotions, and desires. Upon having cultivated these and other virtuous characters an individual will want to do good things and will feel good about doing good things.⁶⁹ Likewise, they will avoid doing bad things, and feel bad if they do something bad. This means that in the quest for a flourishing life, a person ought to actively participate in cultivating their virtues insofar as they seek the good life. So long as an

⁶⁸ Reeve and Lee Miller, *Introductory Readings*, 312.

⁶⁹ Reeve and Lee Miller, *Introductory Readings*, 314-315.

individual has the ability to reason and is guided by reason, then they can aim towards a flourishing life. This, I believe is important because we usually take inmates not to be members of the moral community anymore given that they have committed legal and moral harms. But an Aristotelian virtue ethics framework takes into account the totality of one's life. This means, being ethical for Aristotle is not simply a state or instance in one's life but the continuous activity of seeking happiness. Given this brief template of virtue ethics, I will discuss how stimulants can help inmates reach towards happiness.

Stimulants, Virtues, and Inmates

As mentioned earlier, a typical day for an inmate like Paul can be extremely demanding. Add this to other potential hardships Paul faces such as safety and abuse concerns in the prisons, lack of resources, time constraints, and problematic environments. It seems we can reasonably say that a day in the life of Paul can be difficult.⁷⁰ Returning to the main question: given the circumstances which Paul faces in his quest for a good life, would it be morally problematic for him to use stimulants? In particular, would Aristotle condone the use of stimulants in order for an inmate to lead a flourishing life? These adversities are morally relevant to Aristotle since they impede Paul from being able to lead a flourishing life. I argue that Aristotle would allow the use of stimulants for inmates like Paul to assist in overcoming these obstacles, and so we need good reasons to show that stimulants can support an inmate's path to a flourishing life.

Debates in biomedical enhancement literature on stimulants have been gaining

⁷⁰ This does not dismiss the fact that even people outside of prison are not living difficult lives. However, the dynamics of prisons can be different given problematic features that one may argue prison culture has.

momentum. Typically prescribed for people with cognitive disabilities, there is a new culture where stimulants are being taken by those who do not have cognitive disabilities mostly to improve their cognitive performances. Research – both empirical and anecdotal- seem to suggest that stimulants can improve cognitive functions. Specifically, there is some evidence which suggests that stimulants can improve memory, self-control, and control for impulsivity, improves decision making and improves the ability to deliberate.⁷¹ These functions may also suggest an improvement in one's character since for Aristotle reason and morality are linked.⁷²

The thought is not simply that 'if you take a stimulant, you will become virtuous.' As I mentioned earlier, to be virtuous requires an individual to do virtuous things. However, given the cognition of humans, we may not always be the best at being virtuous and doing virtuous actions. Much of this is due to our limited cognitive processes. For example, studies show that our capacity as judges of people, situations, and beliefs, are not always reliable. Our judgment, however, is not the only cognitive process that has problems. People have low-impulse control and tend to jump to conclusions quickly. It seems fair for scholars then to say virtue ethics may be a tall order, and possibly unachievable given the cognitive constraints that impede the ability to cultivate intellectual and character virtues.

There is, however, hope in accounting for these limitations. Our ability to manipulate and promote our cognitive capacities may potentially allow people to

⁷¹ Danielle C. Turner, et al. "Cognitive enhancing effects of modafinil in healthy volunteers." *Psychopharmacologia* no. 3 (2003): 260. <http://pascal-francis.inist.fr/vibad/index.php?action=search&terms=14579928>.

⁷² Reeve and Lee Miller, *Introductory Readings*, 329.

overcome these limitations. Transcranial magnetic stimulation⁷³, deep brain stimulation⁷⁴, and hypnosis are techniques that have been used to manipulate the cognitive process of humans to produce specific positive results. If it is the case that our biology limits us from being virtuous people, and we have the means to control for those limitations, the use of biomedical enhancements may give people a chance to begin the habitation process necessary for the good life.

In an Aristotelian ethics framework, the goal is to live a flourishing life. In order to lead a flourishing life, a person must in accordance with reason be virtuous and commit virtuous actions.⁷⁵ Being virtuous and doing virtuous actions consists of activities and states such as being rational, responsible, having self-control, being temperate, and interacting with the community. We can then think of stimulants as tools which can lead one to become more virtuous, via the changes and potential improvements in our cognitive capacities.

Stimulants like Adderall and Modafinil can be used as a way of cultivating and improving cognitive capacities. These and other stimulants have robust effects on the chemical production and exchanges in the brain that ultimately affect and generally control for improved cognitive processing. Stimulants, for example, can allow an individual to form or plan a rational structure of their life, by enhancing reasoning abilities to internalize, reflect, and deliberate on daily tasks. Evidence also suggests that stimulants can help in decision making, by increasing the focus on concentration to fulfill

⁷³ Bart J. Nuttin. et al. Long-term electrical capsular stimulation in patients with obsessive-compulsive disorder. *Neurosurgery*, 62, 966-77, (2008).
<https://doi.org/10.1227/01.NEU.0000064565.49299.9A>.

⁷⁴ Linda L. Carpenter. Neurostimulation in resistant depression. *Journal of Psychopharmacology*, 20, 35-40, (2006). <http://pascal-francis.inist.fr/vibad/index.php?action=search&terms=17756271>.

⁷⁵ Reeve and Lee Miller, *Introductory Readings*, 311.

goals more efficiently.⁷⁶ In addition to enhancing one's ability to reason and other cognitive capacities – akin to the virtues of intellect - stimulants can also promote virtues of character. Some examples include the virtues of temperance, patience, and responsibility. Particularly, enhancing a capacity such as self-control can play a role in decreasing impulsivity and improving temperance, patience, or responsibility, and may even increase a person's chances of being successful in life.

An example in the psychology literature of the benefits of practicing self-control which can decrease impulsivity and help someone become more responsible and patient is noted in Walter Mischel's Marshmallow Experiment.⁷⁷ In this experiment, children were given the instructions for either eating one marshmallow sitting laying in front of them immediately or they could wait a couple of minutes longer and eat two. Results of the experiment indicated that those children who delayed gratification⁷⁸ achieved higher academic performance and were also able to cope better with stress than their peers.

There is also evidence which suggests that those who practice self-control and are able to control their impulses better are less likely to abuse drugs, or are less likely to drop out of school or work.⁷⁹ If this can be applied to inmates, i.e., if inmates can facilitate their self-control, it may benefit their well-being and potentially improve their chances of living a good life.

⁷⁶ Henry Greely, et al. "Towards responsible use of cognitive-enhancing drugs by the healthy." *Nature* 456, no. 7223 (2008): 702-705. <http://dx.doi.org.libproxy.txstate.edu/10.1038/456702a>.

⁷⁷ Walter Mischel. "The marshmallow test: mastering self-control". [New York : Little, Brown and Company], 2014.

⁷⁸ Walter Mischel, Yuichi Shoda and Monica L. Rodriguez. "Delay of Gratification in Children", *Science*, vol. 224 (1989): 933-938. doi: 10.1126/science.2658056.

⁷⁹ Warren K. Bickel, , Lisa A Marsch, and Robert West. "Toward a behavioral economic understanding of drug dependence: delay discounting processes." Special Issue: *Theories of Addiction* no. 1 (2001): 73. <http://pascal-francis.inist.fr/vibad/index.php?action=search&terms=992591>.

Cultivating self-control is important and beneficial for a myriad of activities. For an inmate, cultivating self-control can help them with their work productivity. It improves an inmate's cognitive capacities so that they can assess difficult circumstances and make moral decisions. As mentioned earlier, self-control may also increase the chances of a person being successful in life. After all, being able to control one's environment is a need that ought to be pursued.⁸⁰ Having less personal control over one's self and their environment while incarcerated may lead to intense feelings of depression, anxiety, and stress.⁸¹ ⁸² These types of feelings, if not controlled, can create vices, and lead to an unvirtuous life.

The literature on enhancing responsibility and self-control has taken an interest in the field of criminal justice and philosophy. Scholars Nicole Vincent⁸³ and Elizabeth Shaw⁸⁴ have questioned whether it would be possible and morally permissible to enhance an offender's capacity responsibility⁸⁵ as part of their rehabilitation and as a way to decrease recidivism rates. They argue that improving responsibility entails enhancing the capacity for understanding and self-control⁸⁶, which in turn may promote

⁸⁰ Lawrence C. Perlmutter and Richard A. Monty. *Choice and perceived control*. [Hillsdale, N.J. : Lawrence Erlbaum Associates, 1979].

⁸¹ Frank J. Porporino, and Edward Zamble. "Coping with imprisonment." *Canadian Journal Of Criminology* (1984): 403.

⁸² Doris L. MacKenzie, Lynne I. Goodstein, and David C. Blouin. "Personal control and prisoner adjustment: an empirical test of a proposed model." *Journal Of Research In Crime & Delinquency* 24, (1987): 49-68. doi: 10.1177/0022427887024001004.

⁸³ Nicole A. Vincent. "Restoring Responsibility: promoting justice, therapy and reform through direct brain interventions", *Criminal Law and Philosophy*, 8(1):21-42. doi: 10.1007/s11572-012-9156-y.

⁸⁴ Elizabeth Shaw. "Direct Brain Interventions and Responsibility Enhancement." *Criminal Law & Philosophy* 8, no. 1 (2014): 1-20. doi: 10.1007/s11572-012-9152-2.

⁸⁵ Capacity responsibility refers to the presence of mental capabilities necessary for responsible agency. This is contrasted with virtue responsibility, which refers to the maturity and reliability of a persons character.

⁸⁶ Nicole A. Vincent. "Responsibility: distinguishing virtue from capacity", *Polish Journal of Philosophy*, 3(1) (2009):111-26. Available at SSRN: <https://ssrn.com/abstract=1519436>.

responsibility.

Recent studies analyzing the neurophysiological factors that affect self-control found that a neurobiological substrate linked to self-control can be modulated to improve self-control.⁸⁷ Although self-control seems to track responsibility, i.e., an increase in self-control may lead to being more responsible, there is some doubt as to whether cognitive enhancements can enhance self-control in criminal offenders because they may lack the skills required to establish the types of practices of manipulating the environment that is required by self-control behaviour or whose environments may not be conducive to self-control. As such, enhancing self-control may involve more processes than what is currently shown. However, it may be a different case for inmates like Paul who do possess these capacities for self-control or at least is cultivating them, whereas these studies focused on inmates who have specific cognitive disabilities or much diminished cognitive capacities. Further empirical and conceptual work is required to understand what constitutes self-control, and furthermore, how self-control practices seem to stem from context-dependent and environmental characters.

Nonetheless, the promise of manipulating and enhancing self-control is evident.⁸⁸ As a result, in enhancing self-control, inmates may have the opportunity to improve their own wellbeing. As I mentioned earlier, a virtue ethics approach calls for a person to examine their lives in totality. That is, they must examine themselves as the person they are now and the person they are trying to become. This also applies to the use of

⁸⁷ Casey B. J et al. "Behavioral and neural correlates of delay of gratification 40 years later." *Proceedings Of The National Academy Of Sciences Of The United States Of America* no. 36 (2011): 14998. doi: <https://www.jstor.org/stable/27979415>

⁸⁸ Golnaz Tabibnia, et al. "Different forms of self-control share a neurocognitive substrate." *The Journal Of Neuroscience* 31, no. 13 (2011): 4805-4810. <http://dx.doi.org/10.1523/JNEUROSCI.2859-10.2011>.

stimulants. Stimulants, if used virtuously, must account for the person he is now, and the type of person he is working towards. If Paul were to use stimulants, he would have to have a good reason for doing so. Furthermore, in using stimulants, he would also have to be doing so virtuously. If they are not helpful or if he found himself not needing them and harmful, then he should get rid of them. According to Aristotle, for actions to be considered expressing virtue, i.e., for an action to be expressing a virtue of courage or temperance, the individual must know

[that he is doing virtuous actions]; second, he must decide on them and decide on them for themselves, and third, he must also do them from a firm and unchanging state.⁸⁹

So if a person is said to be brave, they have to do brave actions; however, it is not solely doing brave actions. When producing actions that express virtue, it is necessary that the person doing the actions are in the right state. By being in the right state, Aristotle means to say that the agent “must know [that he is doing virtuous actions]; second, he must decide on them, and decide on them for themselves; and third, he must also do them from a firm and unchanging state.”⁹⁰ This implies a difference between simply *acting* virtuous and *being* virtuous because, by being virtuous one knows what one is doing – as opposed to being told what to do -, and one intends to do what one does, and by doing so one acts with certainty, i.e., an unchanging state.

In the case of an inmate such as Paul, he is aware that his reasons for using stimulants are done so virtuously, i.e., he is not abusing stimulants, he is aware that using stimulants can further promote virtuous character, and he is not motivated to act

⁸⁹ C.D.C Reeve and Patrick Lee Miller, eds., *Introductory Readings in Ancient Greek and Roman Philosophy* (Indianapolis: Hackett, 2006), 315.

⁹⁰ Reeve and Lee Miller, *Introductory Readings*, 314.

unvirtuously. In other words, it is not as if Paul were using stimulants out of laziness or in order to avoid putting in time and effort to improve himself. He is already committed and is doing those actions. Paul is working towards building his intellectual capacities and his character.

Adding stimulants can improve on these aspects that lead to a flourishing life, so long as they are not abused, and I take that someone with the motivation to seek a flourishing life will avoid this vice. Stimulants can allow someone like Paul to accomplish his goals in preparation for release. They can allow him to reason better and become a better individual and actualize eudaimonia. On the contrary, if stimulants were to damage his well-being via creating vices, then they would be morally impermissible. But, taking into account the totality of an inmate's life, as in the case of Paul, stimulants can help him seek the good life.

Cultivating virtues of character and intellect can't be done just by popping a pill. It would also be incorrect to think that stimulants are sufficient for living a flourishing life. As such, Paul ought not to substitute stimulants for practicing virtues. However, what stimulants can do is enable an individual to lead a flourishing life by facilitating a cognitive process that affects the virtues. With or without stimulants, Paul will still need to fight to lead a flourishing life, and stimulants, at best, provide a means to facilitate his experience of learning and improving character. That is, stimulants may improve upon the biological or psychological aspects that someone like Paul may need to lead a flourishing life. It then seems that an inmate's use of stimulants can be morally permissible insofar as it helps them lead a flourishing life.

The responsibilities that Paul will have to face if he were to go through with these

are crucial. As I mentioned earlier, using stimulants isn't a tool that will provide improvements without the effort. Stimulants do not provide the code for acting virtuously, but they may be able to make it more accessible for an inmate to reach the virtuous stage. So, by using stimulants, Paul needs to be responsible and critical of using them. If he finds himself no longer need them, or finds them not useful or causing damage, then he ought to stop them. It seems that it would be morally permissible for Paul to use stimulants in order to bring him closer to leading a good life. The rest of this paper will now focus on objections and concerns one may have on a supposed virtuous use of stimulants.

Objections

This section will discuss two objections and replies to a virtuous use of cognitive enhancements for the goal of achieving a flourishing life. As mentioned earlier, Aristotelian virtue ethics is a demanding framework and is thought to be only theoretically useful and not practically useful. As such, it will be important to draw out objections in order to evaluate the merits of Aristotelian virtue ethics in practice. In addition to responding to objections to a virtuous use of cognitive enhancements, if in fact, that is plausible, I will also be responding to potential concerns of using stimulants in prisons.

Objection 1: Obsession to Control

One worry that the use of enhancements brings is that in wanting to enhance ourselves, we want to control every aspect of ourselves and our lives. As Sandel puts it

The deeper danger is that [enhancements] represent a kind of hyper-agency- a Promethean aspiration to remake nature, including human nature, to serve our purposes and satisfy our desires. The problem is not the drift mechanism but the drive to mastery. And what the drive to mastery misses and may even destroy is

an appreciation of the gifted character of human powers and achievements.⁹¹

The idea here is that what makes enhancements morally problematic is that enhancements undermine a sacred aspect of life, and that is the uncontrolled and mysterious part of ourselves. In our quest to control every aspect of ourselves, we lose the significance of being able to approach life in such a way that allows for humans to respond to circumstances on their own. As such, humans should accept and work with what is given to them instead of trying to change and better things with the abilities that humans have.⁹² This calls for a sense of humility, and using enhancements would obstruct that humility and disturb the order of our morals and the way we conduct ourselves and operate in the world. However, there may be issues with this line of argument. One is the sense of appealing to the status quo of the way things are.

Although we may do this in our lives without being aware of it, appealing to the status quo is irrational, since one's preference for the status quo is based on what is the status quo. Additionally, interfering with the status quo or the natural order of things, which is a concern Sandel raises, has long passed. One can specifically see this when it comes to curing the sick – curing the sick being something that goes against the natural order of the world. Furthermore, acceptance of enhancements does not automatically assume perfectionism, nor does it take away from the appreciation of human achievements or gifted character. In fact, in seeing how far we can enhance our abilities, skills, and well-being, we can appreciate more what we have, and what we are capable of

⁹¹ Michael J. Sandel. "The case against perfection: what's wrong with designer children, bionic athletes, and genetic engineering." *The Atlantic*, 2004., 50, Literature Resource Center, EBSCOhost (accessed March 28, 2018).

⁹² Sandel's argument is not that we should never try to better ourselves, or that people who are sick or disabled should not seek to promote their well-being.

doing within our lives.

To be given a set of biological and psychological traits, skills and characteristics, and not explore these hidden potentials seems not fully to appreciate life. Furthermore, in the case of inmates like Paul, it may not be as simple as Sandel puts it. Even if it is the case that taking stimulants would allow someone to become more studious and moral, one would still have to face difficulties and limitations brought on by circumstances of luck. That is, Paul's move towards improving his well-being and completing his sentence is just one part of a whole life yet to be lived. For example, Paul, unfortunately, will still have the brand of a criminal on his record and may be excluded from finding jobs in specific places or fields. Furthermore, Paul is returning to a disadvantaged community where he will still be faced with life's economic, social, and moral problems. It would thus be unwise for someone trying to lead a flourishing life like Paul to think that taking stimulants and promoting virtuous character and intellect will immediately find himself worry free.

One of the difficult aspects of life is the acceptance that no matter how much effort you exert on a task, you might not always receive the outcomes that you want. If enhancements are taken to be the remedy for not always receiving the outcomes you want, then the person is foolish. However, if stimulants can give the person the opportunity to overcome circumstances that they may not be in control of, or to aim for leading the best life, then it may seem unreasonable to deny them as they stand. Paul recognizes that he may not reach the Promethean state, but he can work towards not being complacent in things that affect his well-being. Even if Paul is to improve himself through the use of stimulants Aristotelian virtue ethics will call for Paul to adapt to this

new self, and continue to practice and be virtuous if he is to lead a flourishing life. Doing otherwise would set him astray from leading a virtuous life, and could create vices that will impede his ability to do so.

Objection 2: Stimulants as Shortcuts to the Virtuous Life

It may be objected that using stimulants as a tool to facilitate virtuous behavior takes away from the seriousness that cultivating virtuous character and intellect requires a person to exert effort and struggle to become a better person.⁹³ Others in the same line would argue that using stimulants as shortcuts also undermine specific social practices that we find valuable in society.⁹⁴ In Aristotelian terms, stimulants can be seen a shortcut that misses the point of constant practice and may even create a sense of a ‘need of something or some tool’ whenever a person faces obstacles that they wouldn’t otherwise be able to work through had they not used stimulants. After all, the feelings of suffering, pain, endurance, and hard work can be essential to our intellectual and character growth, and even more so can motivate us to achieve things we thought were not possible. As Aristotle says,

For this is also true of more evidence cases, e.g., strength which arises from eating a lot and from withstanding much hard labor, and it is the strong person who is most able to do these very things. It is the same with the virtues. Refraining from pleasures makes us become temperate, and when we have become temperate, we are most able to refrain from pleasures.⁹⁵

It seems clear that Aristotle understands the significance of working hard to achieve a virtuous state, including the benefits that may follow from such work. However, what is

⁹³ President’s Council on Bioethics. 2003. *Beyond Therapy*. New York: Dana Press: 328. It was noted in the Presidents Council bioethics report on enhancements that humans have made great strides to achieve excellences in various disciplines through hard work and discipline, and as such, any forms of quick fixes are ways of cheating that do not deserve the recognition that someone who works hard and completes the same task would.

⁹⁴ E.T. Juengst. 1998. What Does Enhancement Mean? In: *Enhancing Human Traits*. E. Parens, ed. Washington D.C.: Georgetown University Press.

⁹⁵ Reeve and Lee Miller, *Introductory Readings*, 313.

not so clear is how stimulants are shortcuts to achieving a virtuous character.

A person does not simply take a stimulant and acquire virtues. Rather, the individual must still put in the time, effort, and seriousness in cultivating these virtues. Stimulants would merely help facilitate part of the process towards acting virtuous. Furthermore, what is it about shortcuts that always make them problematic? If I want to get from point X to point Y (20miles away) and I have the option of walking or driving, would I be deemed as less of a hard worker if I drove than someone who walked? Or perhaps a more relevant example, if I was having a hard time memorizing important facts for my exam, and I search for a tutor or learn a mnemonics exercise that provides help for me, would I then be less of a hard worker? One can be more sympathetic to the concern of someone using some tool as a shortcut without putting in the work, but that isn't the case for stimulants.

Furthermore, someone who was leading towards a virtuous lifestyle would make sure to avoid any vices and would not put themselves into a position of using some tool or conducting themselves in such a way that would be vicious. In the case of an inmate who is active and participates in the programs offered in his prison, he must still put in the effort to succeed. Given the biological, psychological, social, and even environmental limitations we face, stimulants may open the possibilities of overcoming those limitations.

Conclusion

In this paper, I presented Aristotle's conception of a moral life. I then argued that stimulants can help inmates with the specific characteristics that are a part of Aristotle's virtue ethics. I argued that the capabilities that stimulants offer fit into an Aristotelian

virtue ethics framework and as such would permit the use of stimulants for inmates enrolled in educational and vocational programs. Stimulants could be used as a way to facilitate virtuous intellect and character and lead one closer to a flourishing life. Where one has utilized tools and practices to become virtuous but faces limitations due to biology or the environment, stimulants may be an efficient and practical solution to aid someone in overcoming those limitations.

A project like this may not be useful for someone who has not been engaging in virtuous practices. Furthermore, this project may not be for those who are not committed to following a eudaimonic path, namely, one that requires constant soul searching, moderation, experience, and evaluation of the moral circumstances one faces. It is a daunting path, and will not be easy. However, the payoffs can be extremely beneficial, especially for inmates who have much going against them.

The aim of this paper was to contribute to the literature on Aristotelian applied ethics as it pertains to cognitive enhancements. While virtue ethics discussions on cognitive enhancements are relatively new, they have been gaining traction.⁹⁶ There are reasons why virtue ethics isn't usually considered in applied ethics work on cognitive enhancements. One reason is that virtue ethics, while interesting in theory, isn't useful in applied practices.⁹⁷ Specifically, it is argued that being able to achieve the Aristotelian conception of a good life is impractical,⁹⁸ or that we are too limited, biologically, in our

⁹⁶ Barbro Fröding. *Virtue ethics and human enhancement*. [Dordrecht: Springer, 2012].

⁹⁷ Rosalind Hursthouse. Applying Virtue Ethics. In *Virtues and Reasons: Philippa Foot and Moral Theory*, ed. Rosalind Hursthouse, Gavin Lawrence, and Warren Quinn, 57-75. [Oxford: Oxford University Press].

⁹⁸ Rosalind Hursthouse. Normative Virtue Ethics. In *How Should One Live? Essays on the Virtues*, ed. Roger Crisp, 19-36. Oxford: Oxford University Press.

capacity to fully be virtuous beings.⁹⁹ However, this may not always be the case. As our technology advances, our ability to enhance, manipulate, and facilitate our biology to promote traits or characters we value may give us the opportunity to practice virtue ethics. That is, the features of our biology or psychology that may limit our ability to be our best selves may be facilitated to promote our well-being.

The idea of cognitive enhancements being used to improve our intellectual virtues and character virtues is not a new idea. Some scholars have offered the idea of genetically enhancing ourselves to promote our intellect and character.¹⁰⁰ However, what I am adding to the discourse of a cognitive enhancements use for the sake of attaining virtue is my focus on applying this to incarcerated individuals for the sake of promoting virtuous life. I believe this to be important given that inmates are often not discussed in the cognitive enhancement debates. If they are it is to discuss providing cognitive interventions for medical corrective purposes, i.e., prescribing pills for cognitive disorders or diseases.¹⁰¹

Societal members may have certain perceptions of inmates that stop them from not considering inmates as part of an important discussion that should be had, namely, how we can promote their well-being. People may believe inmates are no longer part of the moral community and therefore should not be helped. Others may believe that they are not capable of being moral beings given the crimes they have committed. Some may

⁹⁹ Greene, and Haidt. How (and Where) does moral judgement work? Trends in Cognitive Sciences 6: 517-23. Also, you can find further discussion in Kahane and Shackel. Methodological problems in the neuroscience of moral judgement in *Mind and Language*.

¹⁰⁰ Mark Walker. "Enhancing genetic virtue." *Politics & The Life Sciences* 28, no. 2: 27-47, (2009). doi: 10.2990/28-2-27.

¹⁰¹ Elizabeth Shaw. "The Use of Brain Interventions in Offender Rehabilitation Programs: Should It Be Mandatory, Voluntary, or Prohibited?." *Handbook of Neuroethics* (2015): 1381-1398. doi: 10.1007/978-94-007-4707-4_169.

believe that providing resources to inmates is not a good use of our time and money.¹⁰²

Lastly, scholars may be skeptical, and for good reason, of inmates being able to practice virtue ethics while incarcerated given the problematic character of inmates or due to uncondusive environments prisons are in rehabilitating and preparing inmates for release. While their concerns are fair to make, it may be the case the inmates can lead a virtuous life, and stimulants may at least be one useful, efficient way of facilitating that path done virtuously. After all, inmates are an important part of our society, and as such should be taken seriously if we are to strive for improving the well-being of society.

¹⁰² Each of these reasons are not indicative of every person's feelings towards inmates, but it cannot be denied that people have, whether they realize it or not, certain preconceptions of inmates and their worth as moral beings. We can particularly see this in the rhetoric displayed by various politicians regarding prisons, crime, and inmates.

III. POSTSCRIPT

This thesis serves as an exploration for a new avenue of improving the well-being of inmates. Currently, measures taken to reduce recidivism and prepare inmates for a life outside of prison are offered through educational programs, vocational programs, and other forms of services. While some programs have been successful in modestly reducing recidivism, they still face many issues. These programs lack the quality services, resources, time, and opportunities that inmates need if they are to increase their chances of succeeding out in the societies to which they will return. Furthermore, research shows that many inmates have extremely low levels of educational attainment, and thus may affect their opportunities to succeed in life.¹⁰³ Given this information, I presented an argument in my first chapter, which claims that we have a moral obligation to see whether pharmaceutical stimulants such as Adderall, Ritalin, or Modafinil, can be used as a tool to improve an inmate's well-being, in particular, inmates with no diagnosed disability or disease.

The first chapter provided a descriptive background on the educational and social disadvantages that inmates face while incarcerated, the benefits and the problems of prison educational and vocational programs. I showed that prisons, as they stand, may not be fully equipped to be able to provide the educational and vocational training that inmates need. Given the serious obstacles that inmates face in virtue of being incarcerated, I offered a potential way to remedy some of those disadvantages. I argued that we ought to see whether stimulants could be to promote the well-being of inmates.

¹⁰³ Caroline W. Harlow, and Washington, DC. Bureau of Justice Statistics. Department of Justice. 2003. "Education and Correctional Populations. *Bureau of Justice Statistics Special Report*." Accessed April 30, 2018.

While further research needs to be conducted on the effects of stimulants on healthy individuals, some studies suggest improvements in a variety of cognitive functions. If it is the case that stimulants can improve a healthy individual's cognitive capacities and potentially promote their well-being, it seems this may be a tool worth considering used to help inmates. In determining what a just distribution of resources looks like, and would like in the case of stimulants, I critiqued a popular theory of distributive justice offered by philosopher Ronald Dworkin, luck egalitarianism. Luck egalitarianism argues that in deciding how we ought to distribute resources, we should turn to the individual's luck. Specifically, luck egalitarians argue that those who experience inequalities due to bad brute luck, i.e., bad luck which an individual had no control over ought to be compensated, while those who have bad option luck, i.e., those who had control over their choice which resulted in a bad outcome ought not to be compensated.

In the case of inmates, luck egalitarians would generally argue that they ought not to be compensated due to their bad option luck. That is, those who are incarcerated had full control over their luck, and thus chose the incorrect option which placed them in prison. Given the literature on the statistics of members of the incarcerated population, I showed that the luck egalitarian option luck and brute luck distinction might not be so clear. Particularly, I showed that many inmates might have been arrested due to luck which they might not have had full control over. And while they may be considered legally responsible, it may be a stretch to say they are morally responsible. As such, it seems stimulants may be a resource that can be provided to inmates to help remedy disadvantages that they face.

Even if stimulants may not be considered a viable candidate for the improvement of an inmate's well-being for those who may push back on stimulant use it can still be argued that inmates ought to receive resources which can improve their lives. This is especially important for those who may argue that inmates ought not to receive any aid from tax paying citizens.

In the second chapter, I offered an applied Aristotelian virtue ethics approach to the debate in cognitive enhancements. This chapter explored whether stimulants could be used as tools to facilitate and cultivate character and intellectual virtues which are necessary requirements to lead a flourishing life. One of the main critiques of applied Aristotelian virtue ethics is the difficulty of achieving a flourishing life. It is argued that virtue ethics is elitist, not achievable in practice, or not useful. Some of the worries suggest that our biological and psychological limitations prevent us from being able to live a virtuous, flourishing life. Studies in psychology and social sciences suggest there is merit to this. If this is the case, it seems there may be a role for cognitive enhancements, specifically stimulants in certain circumstances where an Aristotelian virtue ethicist might find it morally permissible.

Stimulants have been shown to augment, facilitate, and enhance cognitive mechanisms which can benefit an individual's well-being. Particularly, stimulants may enhance or improve the cognitive process that plays a role in cultivating character and intellectual virtues that lead to a flourishing life. Studies in improving self-control indicate that biological mechanisms may prevent us from being virtuous citizens may potentially be augmented and enhanced to promote self-control. This may build a case for the use of stimulants as a tool that can help an inmate towards a flourishing life.

While stimulants seem to be a potential tool for the improvement of an inmate's well-being, there are also potential problems that need to be addressed. First and foremost is the risk of abuse in using stimulants. In prisons, there is a high risk of drug abuse, and as such, it may be problematic to introduce more drugs to a location where many cases of abuse occur. Another problem that may arise in this project is how stimulant use will be managed across inmates who will use them in prison, whether they will be provided stimulants outside of prison, and how to check up on those individuals who used them. This may require professionals from various fields to study these logistics. Addiction issues must also not be overlooked. Stimulants if abused for long periods of time can become addictive and it would not be in the best interest of the individual nor for society to perpetuate potential risks for addiction. It may be the case that offering stimulants to a select population in the prison complex, namely those enrolled in educational and vocational programs, might be a start to see whether stimulants can promote their well-being.

Each of these areas can be researched in hopes to give light to a potentially efficient and effective avenue that can help improve an inmate's life. Finally, one complication of this project was the lack of research for why educational and vocational programs are not fully functional. There is a consensus that funding and quality of programs are issues that need to be fixed, but how to remedy those issues, where to allocate funding, and what types of educational programs work best for inmates are still missing. This would be a good start for implementing changes for these programs.

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