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Assessing the Moral Evaluations of Pharmacological Enhancements

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Assessing The Moral Evaluations Of Pharmacological Enhancements

by

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A THESIS

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Abstract

There are a variety of ways to accomplish a goal. But how we choose to accomplish a goal matters, morally speaking. The focus of my dissertation is on the ways in which the use of pharmacological enhancements should affect our moral evaluations. I'm concerned with this central question: how should our decision to enhance or not affect our evaluation of the act or person in question? I discuss a number of moral evaluations including deontic evaluations of human action, which concern assessments of actions being right, wrong, or obligatory; agent evaluations, which include assessments of how we should treat people; these include assessments of moral responsibility and just punishment; and outcome evaluations which include whether or not the completion of a goal is an achievement or not and whether such an achievement is meaningful or hollow (Bradford 2015a). These latter evaluations have received much less attention and one goal in this dissertation is to remedy that gap in the literature. After carefully examining many of the arguments against the use of pharmacological enhancements and casting doubt on them, I conclude that utilizing various pharmacological enhancements is not only permissible in many contexts but may be obligatory in far more cases than has been previously suggested.

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Dedication

For Benji and Ma

I dedicate this dissertation to my son, Benjamin; the source of so much love and joy in my life. Thanks for helping me to be the best person that I can be. My hope is that I can positively affect your life half as much as you have positively affected my own in these first six years and 3 months. Thanks Benji! I look forward to our future adventures.

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PREFACE

This dissertation is focused on morally assessing the use of pharmaceuticals to enhance oneself to accomplish a goal. I will be focused on the ethics of pharmacological enhancement¹. I will understand pharmacological enhancement to mean any enhancement that results from the use of a drug to aid in one's performance. Some examples of pharmacological enhancement would be: 1) using Modafinil, methylphenidate, amphetamines, β -blockers², ephedrine, or cannabis to boost cognitive function to do better on an exam or to aid in competitive gaming (Lyon 2017), 2) methamphetamine to help cut weight in sports like wrestling, American football, and baseball, and to assist one in focusing for long periods of time, 3) anabolic steroids to gain strength and to improve recovery time in sports like baseball, weightlifting, and American football, and 4) EPO (Erythropoietin) to improve stamina for cyclists and other endurance athletes.

As evinced from the variety of examples above, the use of pharmaceuticals to enhance our performances is widespread. In universities all over the western world hundreds of thousands of students, many of whom do not have a prescription for their use (Varga 2012), are thought to take drugs like

¹ Nick Bostrom, 2003, 2009; Bostrom and Roache, 2008; Daniels, 2000; Harris, 2007; and Kass, 2003 are some examples (of many) of philosophers focusing similarly on such enhancements.

² These are indirect rather than direct forms of enhancement, an issue I discuss in more detail in chapter 7.

Ritalin, Modafinil, and Adderall to study for longer hours in an effort to increase their chances to do well in a course or to perform better on exams. Even researchers and a number of CEO's in the Silicon Valley Region have been taking to micro-dosing of psilocybin (the active ingredient in LSD and magic mushrooms) in order to spark creativity and innovation for their companies; enhancement is widespread (Sahakian, d'Angelo, and Savulich 2017).

But school, work, and sport are not the only contexts that this technology pervades. To aid our relationships in a number of ways many also take pharmaceuticals to enhance their moods and attitudes (Earp and Savulescu 2016). But this shouldn't come as a shock to anyone; for quite some time people have turned to alcohol or cannabis to assist them in getting over a long day at work or to help them "let loose" after a long day or week. And going back even further into human history we can point to the advent of language as a way of enhancing our ability to communicate effectively with one another. Enhancement has a long tradition and our ability to enhance has grown over time as our understanding of the world has advanced along with our scientific knowledge.

In the bedroom men can now enhance their sexual performance with the use of Viagra, and female sexual enhancement is on the horizon. These examples are but a drop in the bucket of the many contexts I could cite where the use of pharmacological enhancements is a live option for many people in their daily

lives. But knowing when to use or refrain from using an enhancing drug in a given context is highly contested, and I see this dissertation as my effort to help get clear on how we should wend our way through this technological maze.

I will be concerned primarily with the question of when such enhancements ought not to be used as well as the lesser asked question of when they ought to be used. On the view I will put forward, pharmacological enhancements are unobjectionable unless they render hollow an achievement that would otherwise be meaningful or if they entail unreasonable medical risks; I'll add support for this claim throughout the dissertation, both negatively by calling into question the general lines of argument levied against the use of pharmacological enhancements, and positively by pointing to a general case-by-case strategy of ethical decision making. Further, I will argue that failing to enhance is morally problematic in many instances as well. Though somewhat controversial, I believe that most of the pharmacological enhancements that have been debated in the literature thus far are not morally problematic. As with any new technology we should be cautious and tread lightly with how we use it, but this does not entail that utilizing the technology is wrong. The layman criticisms against the use of pharmaceuticals to accomplish a goal or feat seem to assume that the experience of these aforementioned drugs entails feeling some surge of genius in the case of Adderrall or Modafinil, or instant strength and endurance in

the case of anabolic steroids; but all these assumptions show is the ignorance that many have about how these drugs work, ignorance that is often shared by those who endorse enhancement as well. The use of these enhancements is more akin to healing faster after an intense workout, or working for longer hours rather than sleeping in. As Margaret Talbot writes, “a journalist I know, who takes (Provigil) when he has to stay up all night on a deadline, says that it doesn’t help in the phase when he’s trying to figure out what he wants to say or how to structure a story; but, once he’s arrived at these insights, it helps him stay intent on completing the draft” (Talbot 2009). But even if these drugs did help to spark the creative process, it’s not apparent to me why taking them would be morally problematic.

Many people believe that the science behind pharmacological enhancements has advanced such that the use of this technology warrants special attention (Schneider and Friedman, 2006). Utilizing pharmaceuticals calls for special attention (for some) because of the positive effects these drugs have on the human body and brain. The thought here is that these affects may create an unfair advantage; at least in competitive contexts many appeal to those who decide to enhance as “cheaters” (Roach 2008; Schermer 2008; Goodman 2010). Regardless of whether or not there is a ban against a specific pharmaceutical

enhancement, their mere presence raises concerns of fairness for many in the debate (Buchanan, Brock, Wickler and Daniels 2000; Sparrow 2011).

In interpersonal contexts such as sexual relations or when enhancing one's mood, the concern often lies with identity and authenticity, concerns I address in chapter 5 in the context of forced enhancements. Does taking these drugs change who you are? (Degrazia 2005; Parens 2005) While some have argued that such enhancements may not fundamentally change who you are, they have questioned whether the achievements that are garnered from their use are as valuable as they would have been prior to enhancing (Habermas, 2003; Sandel, 2007; Bublitz and Merkel, 2009). I see this a serious moral consideration and I take time to develop why I believe this is so in chapter 3.

And then, there are health risks associated with the taking of these drugs in all of these contexts and this is a consideration that must be weighed in on as well when deciding if a given pharmaceutical is morally permissible³ to take or not. Though many believe that health risks should be left up to the person making the decision, there are some negative health trends that could be thwarted by banning these substances in certain contexts. I'll weigh in on these considerations in Chapter 2.

³ It may be that these considerations (whether a given pharmacological enhancement is morally permissible or not) are neutral about medical risk. Or, it may be that certain risks become unethical to take on. I'll offer some reasons to think that even if one thinks that a certain level of risk is unethical, there is reason to doubt that we are currently in a position to weigh the long-term risks such that they render an enhancement unethical for that reason alone.

But once we move past these preliminary questions about the permissibility of a given pharmacological enhancement and take their use seriously I argue that we should extend this conversation to cases that have been far less discussed in the literature; cases where it seems that one might be morally obligated to enhance. Given that a decision to enhance can negatively affect our evaluation of a particular performance (sometimes rightfully so), we should also ask whether the decision NOT to enhance can have those same negative affects? This latter question has been raised by only a few in the literature and when it has been raised it's been raised in the legal context or at the group level. Rarely has it been argued for on a case-by-case basis. I'll argue that our evaluations should be applied symmetrically and that failing to enhance in certain contexts is morally wrong just as deciding to enhance in certain contexts may be morally wrong. Thus, a main claim I will defend in this dissertation can be stated as such: we shouldn't be asking what's wrong with enhancement in *general*; contra Sandel (2004; 2007; 2009), Fukuyama (2002); Habermas (2003); Annas (2005); Levin (2003), we shouldn't take a course-grained approach to the ethics of enhancement. In other words, I deny that there is a specific feature that one should appeal to in *all* cases to show that enhancement is impermissible, when it is. Even if the wrong-making feature happens to be the right appeal in a given context, it is very unlikely that such a feature will be

universalizable and as such appealing to it as if it was will be misleading at best. Instead, we should take a fine-grained comparative approach; comparing the decision to enhance against the decision not to enhance and assessing how the decision to enhance might better facilitate (or not) accomplishing a goal within a certain context. Another component of the fine-grained comparative approach I will endorse will be to consider what virtue would require (of an agent) in a given context regarding a certain enhancement. For example, what would it mean to be compassionate in a context, what would embodying the virtue of compassion look like in a given context, will be important to our acting correctly in a given context. Ultimately, I argue that this fine-grained approach will result in many pharmacological enhancements being deemed permissible and obligatory in many contexts.

Another reason the context matters when considering a specific pharmacological enhancement is that each person responds differently to different drugs. A recent study on the uptake of caffeine makes this point salient (Guest, Corey, Vescovi, El-Sohemy 2018). In an effort to see if a variation in the gene that is responsible for metabolizing caffeine (CYP1A2) modifies the ergogenic effects of caffeine, researchers tested a 10-km cycling time trial to see how the caffeine affected the performance of those who had different variants of the gene. Their findings were telling! They showed that “in both 2 and 4 mg/kg

caffeine improved 10-km cycling time, but only in those with the AA genotype. Caffeine had no effect in those with the AC genotype and diminished performance at 4 mg/kg in those with the CC genotype. CYP1A2 genotype should be considered when deciding whether an athlete should use caffeine for enhancing endurance performance.” (ibid) These results speak to the need for a case-by-case approach. Although it may be fair to say that caffeine may have a general enhancing affect, in some it actually has hurt their performance and this seems to be a matter of their biological make-up. In such cases, if we are weighing the most efficient way (ethically) to accomplish a given goal, then it would turn out that though caffeine might be best for one person, it won’t be for another. Similar results have been found with off-label use of some of the aforementioned drugs as well, further strengthening the idea that the best way to consider the use of a given enhancement is on the effects it will have for the particular person who chooses to utilize it. Far too often in the enhancement literature it has been assumed that using a certain drug equates to a certain advantage but given the complexity of the human body we shouldn’t be so quick to assume, that all enhancements have the same effects for all, as we tend to.

Once we see that the question is one worth asking, if in fact we should take a given enhancement or not in a *specific* context, then we’ll see that there are in fact many cases where we ought to take an enhancement given the goals that

can be more efficiently accomplished with their aid. Admittedly this is a radical shift in the debate but one I find to be warranted assuming such enhancements can be safely administered. We should be asking what the goal is in taking a particular enhancement and then see if alternative options render the choice to enhance as suboptimal, downright impermissible, permissible, or obligatory. There are trade-offs and side effects to anything we choose to ingest in our bodies, and even if a pharmacological enhancement gives us the positive affects we are searching for, it may turn out that taking it will be morally impermissible if the costs in taking it are too high. Here I am not just referring to the immediate consequences of taking a particular drug (such as the physiological side effects); I am also referring to the personal development we may forgo by deciding to take an enhancement. The focus on personal development is best suited to a virtue ethical approach and I will explain what that approach should entail in chapter 4.

What to expect moving forward? The dissertation is best understood as having three distinct parts. In part I (chapters 1-3) I lay out definitions and relevant literature and explain the debates surrounding pharmacological enhancement, I detail the main criticisms that have been presented against the use of such enhancements and respond to those concerns. In part II (chapters 4-5) I explain how I believe the debate should move forward by detailing my positive account grounded in virtue, practice, and human excellence. I follow this up with

what I take to be some radical suggestions that come about when applying the virtue account I put forward. In part III (chapter 6) I detail some interesting results of using the model I endorse in part II and consider some . But before beginning let me explain further details on what to expect in the name of clarity.

In chapter 2 I will canvass the literature to explain a number of coarse-grained strategies that have been used to evaluate pharmaceutical enhancement and show where they go wrong. Though there are many coarse-grained approaches in the literature (Fukuyama 2002; Daniels 2000; Annas 2005; Sandel 2007) I will only cover those that are appealed to most often and seem to have the most merit, thus, my focus will be on criticisms to enhancement that are focused on the natural vs unnatural distinction, fairness (and cheating more specifically), and health risks⁴. Such criticisms are “coarse-grained” because they generalize, they may take the form: “in the cases in which enhancement is wrong, it’s wrong because it involves cheating”, or “enhancements are wrong because seeking enhancements is to overly focus on perfection” (Sandel 2007). Usually, the generalization is cast over a certain context, e.g. “It’s always cheating when used in the context of sport X, because doing so would be cheating, or unnatural, or harmful in some way”, is usually how the dialectic plays out. This sort of approach puts the cart before the horse; it assumes we have a grasp on what

⁴ I take on concerns of authenticity in chapter 5, which are very different in kind from health risks but which also tend to be coarse-grained in their delivery.

'cheating' or the 'natural' is and then aims to show how enhancements cause one to cheat or compete unnaturally. On my view, only after we analyze the context and the practice(s) we are engaged in within that context, can we appropriately evaluate a given enhancement. Appeals to cheating (understood merely as the breaking of a rule), human essence or nature, or a slight risk in health related concerns are not enough to ground the disdain many have for the use of pharmacological enhancements, or so I will argue.

Chapter 2 will unfold in the following way: first, I will show how the general appeal to cheating, as the primary wrong-making feature in a given context is problematic by showing the difficulty and vagueness that is associated with the concept of cheating itself. I will then move to criticisms couched in the strive for perfection (Sandel 2004; 2007) followed closely by criticisms that arise from concerns that enhancements are unnatural (Sandel actually meshes these concerns together at times). Next I will explain how appeals to health concerns seem either not backed by proper evidence, and/or point to some glaring inconsistencies one must adopt in order to justify appealing to it as a definitive moral reason not to enhance. Lastly I will show how concerns related to authenticity and identity often miss the mark in grounding claims against the moral permissibility of utilizing a given pharmacological enhancement in the contexts that such criticisms are often raised. Rather than conclude from this that

enhancement is always permissible I will offer a novel way to assess pharmacological enhancements by appealing to work being done on the concept of achievement (Bradford 2014, Hurka 2010) in the subsequent chapter.

In chapter 3, I argue that one way pharmacological enhancements (PE's) should be seen as impermissible, when they are wrong to use in a given context, is when the use of the PE renders the outcome of the action that proceeds it as what Gwen Bradford has described as a hollow achievement. I argue, in line with Bradford, that capital-A Achievements, achievements that ought to help bring meaning to one's lives, are necessary for a well-lived life and are difficult to accomplish. According to Bradford, these Achievements share a common thread, they all require a certain amount of effort (how much is based on the practice one is engaged in) as well as a certain causal structure between the agent and the outcome of a particular action. I build on Bradford's account by adding one further condition, a moral condition. If this line of reasoning is sound it follows that we now have a way of assessing the use of particular PE's in a given context. We may ask if the use of a PE in a given context negatively affects our assessment of the outcome; is the achievement meaningful anymore in light of the use of the PE in question? If it is not, then this will speak against the enhancement's use in that context. Notice here that I am not claiming that an

enhancement would be wrong in all of these cases, there may be further considerations that can outweigh this judgment.

One way that a pharmacological enhancement may affect an outcome is that it renders what would have been a capital-A achievement a hollow one because the *effort* required is no longer needed due to the consumption of the PE. Another way that using a PE could negatively affect our evaluation of a given outcome is to assess if the use of that PE affects how we view the authenticity of the process that we see as central to why a given achievement is meaningful to our lives. I argue that in many contexts it is an open question as to whether a given PE renders an achievement as hollow and we ought to evaluate each on a case-by-case basis. Because of this, I suggest a precautionary principle that gatekeepers of the practices individuals are engaged in should adhere to. When devising rules against the use of a given PE we should err on the side of autonomous decision making as such an approach will be most in line with inclusivity for those who may need a particular PE to assist in accomplishing their goals. That's not to say we should allow any and all PE's or that the use of a PE is always moral. Instead, given that the details matter in each case, we should evaluate each PE on a case-by-case basis contra what Sandel and others have suggested.

In chapter 4, I model how evaluating a PE on a case-by-case basis would work. I turn to contexts involving accomplishing goals in various contexts to see how PE's can be positively and negatively evaluated. For instance, I suggest that people that have decided to embark on careers that are intended to help others might be obligated to use PE's if the use of a particular PE makes the positive outcomes more desirable without unreasonable risks to the individual being enhanced. For example, surgeons and other health care providers, bus drivers, fire fighters, pilots, and educators may be obligated to enhance if the harm or risk is low enough given the obligations associated with their particular job duties. In a different context, that of non-professional sports (like the Olympics), I suggest that the use of PE's may be impermissible given the aims of such competition. The goods internal to the practices in question (MacIntyre 1984; Agar 2014) are what makes these practices and the achievements worthwhile to pursue in the first place. Thus, if an enhancement makes obtaining these goods impossible (or much more difficult), then we will have reason to evaluate them as morally problematic. There may be reason to think that Olympic competition have different goods internal to them than professional competitions do. If not, they should be treated on par; but for now I am choosing to stay agnostic on this question. Alternatively, in professional sports, I argue that the use of many of the PE's currently available is likely to be morally permissible given that the aims in

professional sports differ from those in non-professional environments, or so I will argue. A defining feature in the evaluative process will be the aims of the given practice in question. The aims, and the goods we value in pursuit of these aims, will be central in assessing whether a given PE is morally permissible, impermissible, or obligatory in a given context.

In chapter 5 I focus on the upshots of the virtue approach I offer in the previous chapter by entering the debate on moral enhancement by addressing two major issues - one empirical and one normative. First, many have questioned if moral enhancement is even possible. Agreeing with those who believe moral enhancement is possible (Savulescu 2006, Harris 2007) I argue that it's possible to enhance people's moral sensibility. By altering regions of the brain associated with moral reasoning one can be better equipped to evaluate the morally salient features in a given situation. It's important to note that such enhancements, on this view, are understood as a form of cognitive enhancement, though not all cognitive enhancements would have to be moral enhancements (J.A Carter and E. Gordon 2016). What makes an enhancement an enhancement of a certain type (whether it is cognitive or moral) is really beside the point, or so I would suggest. For my purposes, the main point I focus on is the goal we wish to achieve by taking the enhancement. This can be best accomplished by comparing the different ways that we may accomplish this goal and asking what virtue would

require of us in the given context. Whether or not it is a moral enhancement or simply a cognitive enhancement I will leave to others to decide; whether one counts an enhancement as cognitive or moral will depend on what one sees as central, or at least most important to acting morally.

Second, I then show how to weigh in on one case of moral enhancement, enhancement of criminals, and argue that it is *prima facie* morally permissible, and may even be obligatory, to enhance subsets of this population given the aims of the practice of punishment. It's important here to note that the aims of the practice will inform the moral evaluation. It's important because this shows that the method differs from simply weighing the utility of the consequences of each option, as many consequentialists would have us do. In wending into this debate I'll also be weighing in on the debate surrounding the supposed morally relevant differences between direct and indirect enhancements (as discussed in Fouquaret and Schermer 2014)

In the 6th and final chapter of this project I buttress some of the things I say on achievements and virtue to recommend how we should think about some ongoing debates in the enhancement literature. I argue that PE's should be used to enhance both ourselves and our relationships; any account of ethics focused on human excellence should be open to using the latest enhancement technology if such technology didn't justifiably impede on our evaluations of the outcomes

of the practices we are engaged in. As technology grows we should embrace the aspects of it that can improve our lives. We should also be cautious with its use as many PE's present legitimate concerns to our health and to how we may perceive the outcomes of the practices that aim to bring deep meaning in our lives. I'll briefly touch on what it would mean to enhance responsibility, our wills, and virtue itself before concluding.

Before delving into the wrong-making features that many have appealed to when evaluating various PE's (in chapter 2), I begin, in chapter 1 by laying out some conceptual space that I plan to cover and some conceptual space that I will leave aside before canvassing the literature and explaining the views of various members in the debate. How we define enhancement is up for debate so getting clear on what is meant by enhancement will be a natural starting place for my discussion. Thus, I will turn my attention to that discussion following an introduction that aims to explicate the main terms I'll be using throughout the dissertation and lay out some of the main positions held by others in the enhancement literature.

Chapter 1: Introduction

As noted by Thomas Nagel (2010), the advance of scientific research and the medical technologies that have followed as made it the case that “an ever growing and ever more finely-tuned capacity to tamper with even normally functioning neural systems raises a number of ethical questions about the boundary between traditional research/clinical practice and outright human enhancement” (Earp and Savulescu 2014). “[A] societal climate of performance measurements and improvements,” Nagel writes, has led to a “growing tendency to use medical and technological means beyond their applications in classical therapy” (p. 1).

Given these advances, the conditions under which it is ethically permissible to enhance ourselves or others is a main topic of contemporary bioethics research, it is also the main topic of this dissertation. Before delving into the details of the views that others have espoused regarding these conditions it will be good to broadly define how the literature has defined enhancement, and to give some preliminary remarks in an effort to focus the discussion.⁵

The general phrase “enhancement” covers an enormous swath of practices, only a subset of which has been discussed in the enhancement literature (Juengst and Mosely 2016). Following Juengst and Mosely (ibid) I

⁵ There is significant debate as to how we should understand and define enhancement and I will delve into this debate in Chapter 2.

believe it is helpful to specify a working definition early in the discussion; thus I will use their recent definition, which is consistent with the foundational enhancement literature. The practices that are being debated in the literature are those “biomedical interventions that are used to improve human form or functioning beyond what is necessary to restore or sustain health” (ibid). As they note, such a definition makes it difficult to draw distinct lines between any biomedical interventions that are enhancing and those that are not. This is because the distinction relies on how the technology is used. Regardless of whether the technology is enhancing or not the reasons *why* it is used are likely to warrant different ethical responses (Buchanan 2011). A further concern with this definition is that “biomedical interventions” cover a broad range of cases. They could cover cases including lifestyle choices, robotic and mechanical tools, and social practices that foster new forms of relationships that all come with trade-offs and moral concerns (ibid). These issues aside, the main focus in the literature has been on “interventions that make biological changes in human bodies and brains using pharmaceutical, surgical, or genetic techniques” (ibid). For my purposes here, I will only focus on one subset of these cases, what I will refer to throughout as pharmacological enhancements. I do this because it’s quite possible that there are a number of added considerations that come along with different types of enhancements, for instance regarding genetic enhancement

much of the literature is focused on the enhancement of one's children so issues of consent arise fairly quickly. Focusing on a subset of enhancements will allow the discussion to flow without skirting too quickly over specific concerns that arise with the different enhancement procedures.

Further, not only will I focus on a subset of these cases but I will not be dealing with issues surrounding "transhumanism" which are concerns often invoked in these enhancement debates (Bostrom 2005; Fukuyama 2003). Transhumanism can best be described as a movement to radically enhance our human biology. Though the concerns raised against transhumanism may or may not be legitimate (I for one think the concerns are far-fetched) I will put them aside for the purposes of staying focused on the ethics of pharmacological enhancement as it currently stands, or at least in the foreseeable future.

Another preliminary that is in order is the difference between the modes of enhancement versus types of enhancements. Modes of enhancements include drugs, tissue implants, somatic cell interventions among others, while types of enhancement refer to capacities that are amenable to be improved – strength, cognition, memory, attention, mood and the like. So types of enhancement refers to the trait or attribute to be enhanced while the mode of enhancement refers to how the enhancement will be facilitated. The main mode of enhancement I will be focused on as we proceed is through drugs, or pharmacological means as I

will often refer to them. The discussion will continue to cover over a broad range of different types of enhancement, though most of the discussion will be focused on cognitive traits and traits associated with performance enhancement in the context of sport.

There is one important point that should be noted before the discussion unfolds. In no other debate that I am aware of has one so readily used their opponents critiques to bolster their own views. This may be a sign that the debate is fairly recent, as far as philosophical debates are concerned, but it may be that interlocutors in the debate are not being charitable to their opponents. Take this line from Kahane and Savulescu (2015) as a case and point: “One upshot of our argument is that many considerations presented as powerful objections to enhancement are really strong considerations in favour of biomedical enhancement, just in a different direction...” (pp 133). In what follows I aim to be charitable in understanding the concerns that others raise against pharmacological enhancement. It is my view that charitable readings of others is the best way forward in any debate if the goal is to get in the vicinity of the right answer in a given context, and now to some general positions advanced in the enhancement debate.

There are a number of positions in the enhancement debate and before delving into specifics (which I will do in Chapter 2) it will be helpful to lay out some of the general positions within the debate.

Critics of enhancement come in a variety of stripes. Some object to enhancement on grounds that seeking enhancement exhibits a flaw in character (Sandel 2004; 2007). As Sandel puts it “the deepest moral objection to enhancement lies less in the perfection it seeks than the human disposition it expresses and promotes” (Sandel 2004, pp 57). For Sandel, seeking mastery “threatens to banish our appreciation of life as a gift, and to leave us with nothing to affirm or behold outside of our own will” (ibid pp 62). He believes that staying “open to the unbidden” allows us to connect with our fellow humans in an important way. If we all enhanced ourselves we would turn to blame those that did not enhance rather than relate to them with the luck that currently brings about our talents and flaws. It’s important to notice that such objections are general. All enhancements (understood as laid out by Juengst and Mosely above) are wrong for Sandel because of the disposition it exposes. The disposition to enhance threatens the virtue of humility, and traits such as responsibility, and solidarity.

Interestingly, as with many critics of enhancement, Sandel still wants to appeal to treatments as morally unproblematic. He attempts to do this by focusing on the “natural”.

Treatments are unproblematic for Sandel because they allow natural capacities to flourish while overriding natural capacities are enhancements and open to his critique. But as Frances Kamm has pointed out in her response to Sandel (Kamm 2007) “why does appreciation of nature’s gifts require (us) to limit ourselves to them? We can appreciate what is given and yet supplement it with something new, even when we are not compensating for a defect” (ibid pp 20).⁶ I’ll have more to say about this exchange in Chapters 2 and 3.

Other critics focus on the “natural” itself to ground their criticism of enhancements more generally. Francis Fukuyama (2002; 2003; 2004), the President’s Council on Bioethics (2003) under President Bush, and George Annas (2005) have been the main proponents of this coarse-grained critique of enhancement. They claim biotechnological interventions that are aimed at self-modification pose a threat to human nature. Fukuyama writes, “we want to protect the full range of our complex, evolved natures against attempts at self-modification” (ibid 172), and so we should ban enhancements because of this.

⁶ I’ll have more to say on this in chapter 2 in my response to Sandel.

Lastly, there are those who reject enhancements, in a course-grained fashion, due to our epistemic limitations as fallible reasoners. Yuval Levin (2003) for instance, has claimed that the limits of human reason make it the case that we are unable to foresee all of the possible negative consequences that could arise from the use of enhancement technology and thus using such technology is morally problematic.

Attempting to move the debate beyond whether or not we should transform human nature, Allen Buchanan (2011) holds that the debate should be refocused from whether we should enhance or not, to “*how* we should ethically and responsively use enhancement biotechnologies” (Jotterand 2011). And though Buchanan’s question is certainly salient as well, it’s not clear that the initial question should be abandoned altogether. As Jotterand noted, “*whether* we should pursue enhancement should still be at the forefront of our reflections, especially if we want to avoid the hijacking of biotechnologies for political or ideological agendas. It appears imprudent to think we can disregard the question (Jotterand *ibid*). I agree with Jotterand, however I think the initial question “*whether or not we should enhance?*” is in need of some re-tooling. It is best understood, or at least most fruitful to engage with, on a case-by-case basis rather than on a species wide scale as others have suggested (Perrson and Savulescu 2012).

There are a number of further positions in the enhancement debate. At the most restrictive end of the spectrum some have argued that there are objections to enhancement “in principle” (Giubilini and Sanyal 2015). Such objections focus on proper conduct in a certain sphere of activity, (e.g. many see performance enhancement in the context of sport as improper) or, on the sanctity of human nature (as discussed earlier). Others are more permissive in the debate and hold no objections to most enhancements that are currently on offer. In fact, some go even further and have suggested that we might be obligated to enhance in certain contexts (Santoni de Sio, Faulmuller, Vincent 2014; Savulescu et al 2011)⁷.

Like many debates in philosophy (e.g. debates surrounding free will, moral luck, and moral responsibility) the enhancement debate suffers from glaring ambiguities. One major obstacle in the debate is how to categorize the various positions; as Giubilini and Sanyal point out (ibid 2015) many who utilize one definition of a label mean something completely different by it. They point to a nice example between (Roache and Clarke 2009, 1-2) on the one hand who use the label ‘bioconservative’ to refer to positions that restrict human enhancement, and Jonathan Moreno on the other who uses the same term to refer to anti-enhancement positions on both the political right (stemming from concerns centered on the loss of traditional values) and the political left (stemming from

⁷ I’ll argue that we do in fact have moral obligations to enhance in many of the scenarios that these authors raise. They tend to focus on the legal obligations while I will focus on the moral obligations.

concerns about social inequality and ecological problems) (Moreno 2011, 121). Aside from these two approaches to labeling, others have claimed that we should stay away from such labels altogether. Ruth Macklin (2006) and Arthur Caplan (2009) for instance, do not believe political labels add to the arguments on offer, though Caplan has settled on meliorist and anti-meliorist terminology instead (ibid). I'll follow Macklin here and try my best to steer clear of political labels when discussing different positions.

Another issue surrounds the definition of enhancement itself, which will be the focus of chapter 2. To briefly point a couple of issues surrounding definition, the concept of normality tends to play a significant role in defining enhancement yet the term itself is ambiguous between a merely descriptive meaning (Boorse 1977) or a normative one (Resnik 2000). Second, it's unclear whether enhancement is most concerned with overall well-being (Savulescu 2006) or with specific traits and capacities. While being strong may enhance a person along the dimension of strength it may fail to improve that person's overall well-being, all things considered which is why getting clear on a definition will be important. I'll tackle this head-on in the next chapter suggesting we use a definition that doesn't impose weighty political rhetoric in an effort to get an unbiased evaluation.

Regardless of what abilities or traits we currently have, and regardless of our political leaning or how we decide to define enhancement, almost all of us wish to enhance some aspect of our lives; we are always seeking to be better than we are regardless of whether we are in a statistical “norm” or not. Whether we wish to enhance our ability to secure employment by attending University, enhance our ability to gain muscle by ingesting a protein shake after the gym, or enhance our ability to deal with a case of the Monday’s by having a large cup of coffee, we all seek enhancements in one form or other. But some ways of enhancing ourselves are morally questionable and the focus of this dissertation will be on one specific way of enhancing ourselves, using pharmacological means to enhance. By pharmacological enhancements I am referring to a subset of enhancements that are accomplished by the use of a drug. Some examples might help; drugs such as Methylphenidate (Ritalin), Modafinil (Provigil), and Fluoxetine (Prozac) are often used to enhance our cognitive function. Methylphenadrine, for instance, is often utilized by both students and academics to increase their concentration and perform better on exams or at work. Modafinil is often used to promote alertness for long periods of time which can enhance one’s ability to stay awake to study, research, or work consistently for longer periods of time. And Fluoxetine (Prozac) is often taken to enhance one’s mood or emotional state. These drugs are often referred to as mood and

cognitive enhancers respectively. Other drugs are taken to enhance other physical functions, for example, erythropoietin (EPO) is often used by cyclists to enhance their endurance levels while racing. And a variety of androgenic steroids are often used by baseball and football players to enhance their strength and recovery times between competitions. These drugs are often referred to as performance enhancers. In what follows I will refer to both types of enhancements as pharmacological enhancers. I will not tackle questions of genetic or mechanical enhancements though I do believe that much that I will have to say can be carried over to those contexts as well.

Although there have been a number of arguments raised against the use of these drugs many of them miss the mark, or so I will argue. Without a clear-cut basis for why the use of these pharmacological enhancements is morally wrong it has left many to wonder when using a particular enhancement is wrong, if ever. I hope to rectify this situation by introducing a novel way of assessing the use of pharmacological enhancements.

My main aim in this dissertation is to investigate when we should or should not utilize a given enhancement to accomplish a goal. More specifically, I will be concerned with pharmacological enhancements and not with enhancements that occur due to surgery or other mechanical means. I discuss where traditional arguments against the use of these enhancements go wrong

and explain how the driving intuition for some of these arguments can be saved or spoken for by getting a grip on what might be lost in using these drugs.

As humans we engage in a number of different activities: we attend University, we play sports and games, we enter into loving relationships, and we spend time with friends and colleagues. We almost always engage in these activities to accomplish some goal or other. The means to which we accomplish our goals seem to matter, morally speaking, and the focus of my dissertation is on this last claim. I argue that there is no one-size fits all approach to evaluating the use of drugs to enhance our performance. By this I mean claims that using enhancement is always wrong or right are misguided. Throughout the dissertation I will refer to these attempts to evaluate enhancement as coarse-grained. In opposition to this approach I argue that we should take a fine-grained approach. On this approach it will be imperative to understand the context that the pharmacological enhancement is being used as well as the intentions that agent has in using it.

I will be concerned with the moral evaluation of the means human beings use, or can use, to accomplish their goals. Put differently, I am concerned with morally evaluating the way in which we accomplish our goals, and not just on how we should evaluate the results of our actions. Assuming that there are a range of ways in which we can accomplish our goals, this sort of evaluation often

takes a comparative approach. For instance, we often weigh the costs and benefits of approaching our goal one way rather than another. I may for instance accomplish the goal of paying back my friend the money I owe her by giving her a portion of my check, or, I may do so by robbing the money I owe her from the dresser of another friend. Clearly the first option is better and would be the option suggested by most moral theories. As such, my dissertation is focused on the evaluation of actions. These evaluations are often referred to as deontic evaluations about the moral rightness, wrongness, or obligatoriness of actions (Haji 1998; Haji 2002; Fischer 2003). I should note that my focus is not on all human action. Instead, my focus is on the set of human actions that are at issue in the enhancement debate. By “the enhancement debate”, I am simply referring to an ongoing dialogue taking place regarding the morality of using enhancements to accomplish some goal. These are actions that are performed with the aid of some process or mechanism, natural or not, that assists an agent in accomplishing their goal(s). Because different ways of enhancing may carry different evaluative considerations I will narrow my scope to cover only pharmacological enhancements. But before explaining the history of the enhancement debate, a debate concerning the evaluation of the actions performed by agents who have been enhanced in one form or other, it will be

important to define some technical terminology that I will be using for the sake of clarity.

Throughout the dissertation I will refer to an action using one of three deontic evaluations: an action will either be morally right, morally wrong, or morally obligatory for a particular agent at a particular time, unless specified otherwise. I am not primarily assessing the agent in these cases. Rather, I am judging an action(s) (or set of actions) as the right one(s), the wrong one(s), or the obligatory one(s) in any given instance for a specific agent at a particular time to perform.

It's important to distinguish these deontic evaluations from other moral judgments. Again, I am not necessarily assessing the agent that is acting, although many times a negative agent evaluation follows from an agent performing a morally impermissible action. For instance, I may very well blame the agent for doing something morally wrong, but that judgment, that an agent is worthy of blame, is different in kind from a deontic evaluation. These latter evaluations, often referred to as responsibility judgments, are judgments concerning whether an agent is blameworthy or praiseworthy for performing an act at any particular time. These evaluations are primarily agent evaluations. We are principally assessing the agent; responsibility appraisals are appraisals of an agent's praiseworthiness or blameworthiness. Although both evaluations fall

under the heading of moral evaluation, I will be concerned for the most part with deontic evaluations unless specified otherwise.

There is a third class of evaluations, often referred to as aretaic evaluations, which have to do primarily with judgments concerning the character of an individual and the virtues and vices they exhibit. These evaluations should not be confused with evaluations of an agent's moral responsibility. It is possible for agents to have a character trait that has no bearing on moral responsibility and, conversely, an agent can be morally responsible for something in a way that has no impact on that agent's character (Murphy 2011). These would be cases in which we would say "she acted in a way that was completely out of character." Now that we are clear on the different sorts of moral evaluations I will be using as the project unfolds let us turn to the set of cases my project will be focused on: cases of pharmacological enhancement both in the context of sport and cases of such enhancement outside the context of sport.

Often times those who choose to enhance themselves by pharmacological means do so because they believe they'll do better than they would without taking the drug. Michael Sandel (2007) has referred to these cases as becoming "better than well" (pg. 71) and these are the sorts of cases that start to cause moral concern as opposed to enhancing oneself to overcome a disease or

malfunction. We can put these “better than well” cases into two subsets. Let’s call the first subset of cases unproblematic pharmacological enhancement cases, hereafter referred to as UPEC’s; and the second subset problematic enhancement cases, hereafter referred to as PEC’s.

One common UPEC is consuming coffee. I may drink a few cups of coffee to help me focus **better** on my lecture. I could perform the lecture adequately without the coffee. But coffee wakes me up much faster and would make my performance in articulating my lecture better than if I had not had the coffee. How does this work? The ingredient in coffee that helps me focus better and helps me through my morning fatigue is caffeine. Caffeine is derived from a purine base (xanthine) that can be found in most human tissue and fluid as well as in other organisms. Caffeine is the most widely used psychoactive drug. Yet the fact that it’s a staple in our diets has prevented most of us from seeing a caffeinated coffee as a drug. Because of this, caffeine from sources like coffee is often left out as a case of enhancement, and as such has been largely left out of the critical eye of the applied ethicist. This is concerning, not because we should take a hard line on caffeine; quite the opposite. Once we bring caffeine back into the discussion (and other traditional ways of making our lives more efficient) it will become easier to see how newer ways of administering the drug differ, how comparable drugs compare, and more importantly, if those differences are

morally salient. One way to bring it into the discussion is to expand our definition of enhancement to include coffee. I'll say more about this in the next chapter.

Once a practice becomes standard it is often assumed to be morally permissible. When such a practice is connected to human function, it is often left out of the enhancement discussion. Though understandable to some extent, I see this as a problem. I do not believe wide spread social acceptance should do the work to tell us which cases should be critically analysed and which others should not be. Caffeine has the ability to enhance the lives of those of us who take it. The positive effects of caffeine, which have been linked to better learning, memory, performance and coordination outcomes have been firmly established (Nehlig et. al. 1992; A. Heinz et. al. 2012). These positive effects are related to the methylxanthine action on arousal, vigilance and fatigue. Caffeine exerts obvious effects on anxiety and sleep which vary according to individual sensitivity to methylxanthine (Nehlig *ibid*; Heinz *ibid*). Thus we have a pretty clear understanding as to why caffeine has the positive effects that it does. The active psychoactive drug in coffee, caffeine, interacts with our body in such a way that it allows us to focus and perform better than we would have if we decided against having our morning coffee fix. Notice that we would be hard-pressed to find a serious moral problem with me having a couple of cups of coffee before

my lecture. My point here is that, barring any other considerations, there are cases of becoming “better than well” (UPEC`s) where we have no objection to the act of making ourselves better. Consider a few other examples. I may eat extra carbs the night before a marathon to give me **extra** energy. I may decide to drink a protein shake in order to facilitate muscle growth and muscle repair which is beneficial to getting me back on the field the next time I want to compete. Or, I may choose a diet that optimizes my ability to concentrate better in classroom settings or at work (for instance, a diet high in Vitamin B). These bodily changes are rarely looked at as unethical within our society.

Now, the second set of cases contrasts sharply with UPECs. Consider one case that many understand as a problematic pharmacological enhancement case (PEC); the case of Lance Armstrong, a highly decorated world-class cyclist who held a number of cycling records in his career. Armstrong admittedly engaged in blood doping so that his body could overcome exhaustion on the bike track (biography.com editors 2016). Blood doping is defined by WADA as the use of “certain techniques and/or substances to increase one’s red blood cell mass, which allows the body to transport more oxygen to muscles and therefore increase stamina and performance.”(<https://www.wada-ama.org/en/questions-answers/blood-doping>). Blood Doping is illegal in cycling and can occur in a number of ways, Armstrong doped by using the peptide hormone erythropoietin

(EPO). EPO is naturally produced by and released from the kidneys and acts on the bone marrow to stimulate red blood cell production. This serves to help cyclists and other endurance athletes by boosting the amount of red blood cells in the body. This improves the amount of oxygen that the blood can carry to the body's muscles. It is also reported to increase the body's capacity to buffer lactic acid. This aids a cyclist in preventing lactic acid build-up in the muscles which affords them the opportunity to keep paces they could not without doping (Wada.com).

Another famous PEC case is that of Major league baseball player Barry Bonds. He allegedly used steroids to gain more power so that he could hit the ball farther than he could prior to taking them (Baltimore Sun 2004). Bonds holds a number of major league baseball records including one of baseball's most sought-after records, the homerun record. Steroids are banned in baseball. The moral abhorrence with Bonds taking banned substances has caused him to be excluded from what many consider to be the highest achievement in baseball, the Hall of Fame. These PEC's share a common feature: they are both predicated on the use of a pharmacological enhancement deemed illegal by the governing body of their respective sports. However, not all pharmacological enhancements have a banned substance at the center of their negative moral evaluation. Consider contexts outside of sport.

Imagine sitting down to take an exam that will determine what law school you will get into in the fall. You worked hard during your undergraduate career and achieved high enough marks to be considered a good candidate, all things considered. However, one of the things considered, and weighed heavily at most top law schools, is one's LSAT score. Imagine further that you have worked and studied hard for this exam and you score just below the 171 average to get in. Some people get in with a 168; but many do not, and, with your 168 you fail to gain admittance. Now, imagine that a week later your study partner, Maria, who put in slightly less work than you did, got her score back as well. She scored a 171, which is a surprise to you because you scored 5-7 points higher on all the practice exams leading up to the big exam. When you ask her what her secret was to getting a higher score than she usually did, she explains that she took a cognitive enhancer to focus a bit more on test day. She chose to purchase a 20mg Dexedrine tablet to assist her with the exam. Dexedrine primarily targets the prefrontal cortex (PFC), a region of the brain that is associated with attention, decision-making and an individual's expression of personality. It has been shown to be a helpful treatment for individuals suffering from ADHD (Berridge et. al 2011; 2014; 2015). And the drug is often used with mixed results for individuals who do not suffer from ADHD (Scheffler et. al. 2009). More recently, drugs like Modafinil have been studied in the context of competitive gaming and the results

show that it helps even those that do not suffer from ADHD or other cognitive disorders (2017 *ibid* [be clear about the reference here]).

We may now ask, what, if anything, is different between the first set of unproblematic pharmacological enhancement cases and the allegedly problematic cases of Lance Armstrong, Barry Bonds, and Maria that many take to be morally unacceptable? Further, we may ask if those differences between these practices are morally relevant? I care about these questions because I care about doing the right thing, morally speaking. But in order to make an informed decision about which practices are ethical and which practices are not, and which substances are ethical to take and which ones are not, it's imperative that we identify the wrong-making feature of the practice or substance in question. Thus, one of the central questions guiding my inquiry could be asked as follows: what makes any enhancement ethical or unethical? Put differently, when is it morally permissible, morally impermissible, or morally obligatory to enhance one's abilities to accomplish a goal?

In this dissertation my main aims are centered around this group of moral questions: when it is morally permissible, impermissible, or obligatory to enhance ourselves or others to achieve a particular goal? In order to properly answer these questions, I must first explain a few problems that seem to underlie the enhancement debate more generally. My plan is to tackle each problem in its

own section of chapter 2 to help set the stage for discussion of this guiding moral question.

Chapter 2: The Enhancement Debate

The goal of this chapter is three-fold. My first aim is to discuss how philosophers define enhancement on the one hand, and how they motivate their definition over other ways of cashing it out on the other. The goal in discussing how we ought to define enhancement is for us to get a clear understanding of what is meant by enhancement so we can be in a better position to evaluate whether a given enhancement is permissible, impermissible, or obligatory.

My second aim is to suggest that debates surrounding enhancement should be refocused; instead of starting from the therapy/enhancement contrast as many in the literature would have us do, I argue that the aims of treatment and enhancement are different and recognizing this allows us to refocus our attention to the practices and contexts where enhancements take place.

Lastly, I will forward the claim that pharmacological enhancements are unobjectionable unless they render hollow an achievement that would otherwise be meaningful. The details regarding what makes achievements meaningful will be discussed in detail in chapter 4 but my purpose in alluding to this now will be to explicitly connect the notion of pharmacological enhancement to the effective or optimal way to achieve a goal to set up the discussion that follows in later chapters.

2.2 Enhancement VS Therapy

One common view holds that something ought to be considered an enhancement if it brings someone above a particular norm of physical or mental function. So, if the norm is being able to read 40 pages in 2 hours, and you take a drug that gives you the ability to read 60 pages in 2 hours, then this would be an enhancement. However, if you can only read 20 pages in 2 hours and you take a drug that gets you to read 40 pages, then on this view it would be considered a therapy. This assumes that the level of function one aims to raise approaches the norm and does not exceed it. On this view, the norm does the work to tell us if the thing in question is an enhancement or a therapy. Now, nothing about defining things in this way tells us if the enhancement is morally permissible or not (assuming that the norm is just a standard and has no 'normative' or deontic significance). However, it's worth mentioning here that therapies are rarely, if ever, considered morally problematic. Thus, when we define a class of actions as 'therapies' and another class as 'enhancement' it seems to arbitrarily call some things morally questionable while assuming others are not. When therapies and enhancements are parsed in this way, there is good reason to think that this may prime us to think differently about the enhancement category. It forces us to stay open to the impermissibility of enhancement while we stay closed to the

impermissibility of “therapies”, at least generally. I want to suggest that, given that the distinction stacks the deck against enhancement, and given that both ‘therapy’ and ‘enhancement’ can aid a person in achieving some end, we should move away from the distinction in an effort to get clear on the details of why some enhancements are permissible and others are not. We should also move away from the distinction because it’s misleading and beside the point of some of the questions I would like to focus on. Treatments are aimed at improving our states, whereas enhancements aim at better positioning us to accomplish a goal. Given that some ways of accomplishing a goal are problematic and other are not, and given that improving a given state is unproblematic, it would then seem much more fruitful to focus on enhancements in context rather than defining them broadly for political reasons.

One reason for separating the two concepts in the debate is to show that some interventions are within the purview of medicine (therapies), and others are outside this purview (enhancements). For them, this puts enhancements outside the scope of medicine and thus aims to single out these interventions in an effort to thwart those who wish to enhance (making it harder for them to get an enhancement from a trained practitioner. After all, if enhancements are the ‘other’ then it is not the sort of thing doctors and health care providers should be concerned with.

Once we start with understanding both therapy and enhancement as two sides of the same coin, we can better understand why some enhancements are morally permissible and others are not. I will argue that any drug or procedure that aids in one's ability to achieve some end is an enhancement. But how can we tell which enhancement is morally permissible and which ones are not? And, what criteria will help us to answer that question? I'll get to this in chapter 3 after canvassing some criteria that others have put forth in chapters 2. But first, let us look closer at the enhancement/therapy distinction and let me offer some arguments in favor of the view that such a distinction serves only to sidetrack us from the goal centered approach to evaluating the morality of any given enhancement I'd like to offer. So while I will admit that there is a difference between enhancing to a norm (therapy) and enhancing above a norm, the difference is not morally salient and it tends to lead us astray in the debate since norms are rarely a legitimate appeal in ethical discourse.

2.3 Problems with the Enhancement V. Therapy Distinction

Norman Daniels was one of the first bioethicists to distinguish enhancement from therapy by appealing to norms. He wrote: "any intervention designed to restore or preserve a species-typical level of functioning for an individual should count as treatment, leaving only those that would give

individuals capabilities beyond the range of normal human variation to fall outside the pale as enhancement” (1985; 2008).

The Bush era President’s Council on Bioethics (spear-headed by Leon Kass) followed some years later (2003) by distinguishing enhancement from treatment and therapy. The Council defined the latter as an intervention designed “to treat individuals with known diseases, disabilities, or impairments, in an attempt to restore them to a *normal* state of health and fitness” (emphasis added). Enhancements were those interventions taken by individuals that did not have a known disease, disability, or impairment beyond normal function, or, that treated those conditions to raise them beyond normal function. For the most part, this way of distinguishing between interventions has endured but it’s unclear that the distinction parses out the most effective class of enhancements for us to evaluate. Even President Obama’s Commission on Bioethics (2014) defines enhancement as “pharmacological and technological interventions meant to improve mental and physical capacities beyond normal functioning” or when used for a “non-disease capacity”. Thus, in an effort to figure out if some interventions are morally permissible or not, it seems that we have looked at the enhancement category as the ‘other’ (to therapy) and proceeded from that point.

It should come as no surprise, then, that enhancements have endured much more criticism than therapies have. It is unclear to me that the distinction

is helpful at all for figuring out if and when we should enhance in a given context, unless of course our goal is to push some political agenda and make enhancements more difficult to come across for those who may be interested. In fact, I believe there is good reason to think that the distinction has been perpetuated for political reasons, which gives us further reason to doubt that the distinction is one based on principled or non-arbitrary reasons. Instead, it may be based on fear of new technology, or incentives to police new ways of changing ourselves in ways that we see fit from our generally conservative perspective. As Cabrera et. al. (2014) recently noted “the debate is regularly couched in moral terms, with those leaning towards a more bio-conservative worldview casting therapy as morally appropriate and enhancement as morally problematic, while more liberal commentators suggest that even if one could distinguish between therapy and enhancement, there is no moral difference between the two. As we can see, these positions depend to some degree on one’s bio-political worldview.” Though Cabrera et. al. admit that this distinction is at least partly perpetuated by political worldviews, they argue that the distinction is one we should adhere to nonetheless and point to empirical research to inform their conclusion. In the remainder of this section, I would like to call their conclusion into question by pointing to some issues with their use of the empirical data. They offer a number of reasons for keeping the distinction. But I will critique

each of them and conclude that we would do better to get beyond the distinction if our goal is to identify the wrong-making feature of impermissible enhancements.

Before discussing why Cabrera et. al. believe the distinction is important, I'd like to discuss the conclusions they draw from their research. Given the history of the use of these concepts, they should not come as a surprise to many.

In their study, the authors assessed the participants' attitudes toward two different interventions that were described as enhancement above the norm (EAN) and enhancement to the norm (ETN). They describe the results of their study as follows:

"The present experiments demonstrate that when pharmacological enhancement enabled enhancement towards the norm (normalization), participants feel more comfortable than when it enabled improvements above the norm, irrespective of cognitive, affective or social domain. Participants also view ETN as providing a greater impact upon success in life than EAN. Three major insights emerge from these data." (ibid)

The first conclusion the authors draw from this research is that "the public is sensitive to the therapy-enhancement distinction: across 12 cognitive, affective

and social domains, participants were more comfortable with enhancement interventions that enabled ETN than EAN.” (ibid). I don’t question this conclusion at all, though I will question what they suggest this conclusion is evidence for. That said, this finding should come to us as a surprise given how entrenched the terminology has been since the surge of enhancement technologies that were developed in the late 1900’s. The authors agree, stating “that respondents were sensitive to this distinction is perhaps unsurprising, as it has long been considered a cornerstone of the debate over the ethics of enhancement *writ large*”(Ibid; Daniels 2000). Further, they site a similar study that focused on the propriety of cognitive enhancement use (Sabini & Montrossi 2005) where the results were quite similar. In that study people “somewhat tolerant of allowing memory-and attention-enhancing drugs for performers in the bottom 10%” (Sabini 2005) but felt quite differently about average or above average achievers.

I agree that the findings by Cabrera et. al. offer “new insight in that respondents in the ETN condition readily offered answers indicating they were more comfortable with the intervention than those in the EAN condition, without either group knowing that the other option was even being considered.” (Cabrera 2015) But I disagree that such findings support the claim that the distinction should be upheld; in other words I don’t see why this distinction

should be of interest to those of us trying to figure out when or if a given enhancement should be utilized to accomplish a goal. Treatments aim at states and aim to make them standard without reference to any goal, whereas enhancements aim at better positioning us to accomplish a goal.

Even if we agree that “the most plausible interpretation of these findings is that (the) participants were viewing ETN as a form of quasi-therapy, whereas they viewed EAN as an example of what is generally meant by enhancement within the biomedical paradigm of enhancement” (ibid), it simply does not follow that this supports the claim that we should continue to adhere to this distinction. All this shows is that the distinction is entrenched. But the distinction is not setting aside the morally relevant set of cases we care about, at least not the considerations I am concerned with in this investigation. It’s not the fact that one is below a norm that makes a certain enhancement morally acceptable, nor is it the fact that one is above the norm that makes a given enhancement unacceptable. Appealing to an entrenched distinction as a starting place for a discussion on the morality of one side of the distinction is to include many cases that are irrelevant to our discussion and may lead us astray when trying to identify a common feature shared by each within the category.

But the authors suggest otherwise. They suggest, and utilize the fact that almost half (608/1408) of the respondents answered in this way, that the general

public is “uncomfortable” with folks using a pill when the condition was framed as EAN as compared with only (227/1368) when the condition was framed as ETN. This fits with Daniels argument that medical necessity (Daniels 2000) should do the work to distinguish therapy from enhancement. And because it fits with a widely accepted definition (Daniels 2000), and because the public shares a discomfort with EAN, it follows that the distinction should be kept and is useful, at least prima facie. They suggest “that reassurances offered by proponents of CAS enhancement need to be sufficiently robust to overcome this reticence on the part of the public, whether the issue be safety of the pills themselves or the social impact of widespread pharmacological CAS enhancement use.” (Cabrera 2015). Because of this, they suggest further “that in matters of public policy, especially when they concern positional goods such as CAS enhancement for which medical necessity is lacking, the views of the public should be given due consideration.” (ibid). In other words, their suggestion is that the norms of societal comfort and discomfort with an activity (such as EAN) should guide our public policy. I see this suggestion as problematic and possibly damaging to many within a society.

There have been many norms in our society that have shaped our social and political attitudes and behaviour. Consider one norm of the 1960’s, the norm that women did not work outside of the house or get a college education. Let’s

imagine that a study, conducted in a similar vein as Cabrera et.al, showed us that allowing women to vote, or work in a particular field (outside of the home) was looked down upon by many respondents and made many feel uncomfortable. Should it follow that we can use this as support or evidence that the norm is justified? This practice seems morally abhorrent at best. I'm making a methodological claim here: appeals to the public norms and understandings to justify distinctions between two or more categories are dubious.

Instead of following the recommendation of Cabrera et al, what we should do is use this data as a starting place to investigate how we should approach implementing a policy rather than using this data to guide our policy full stop. Understanding what the norms of society are should *only* help us to guide how to implement policy, not on what the policy should in fact be. Since how the public responds to policy, and how a particular policy is applied is important to it's success, it follows that knowing how we can and should use this information will help us to implement a policy that may not have much favor in the public sphere. But what we should not be in the business of doing, is crafting public policy that necessarily aligns with public opinion.

Social change is often a good thing but it should be guided by fair assessments of human behaviour in our world. A fair assessment should not, in itself, be simply what the majority thinks or feels about a topic. Consider another

example: Slavery was accepted by many people before the twentieth century. That did not make it morally permissible or right. We should be in the business of advocating for policy that is best for the public, whether they can see it that way or not. That said, I am not suggesting that this should not be done by a dictator or even more benign forms of paternalism. Rather, I am suggesting that this occur through discussion and active debate by professionals and an enlightened and informed public. Argumentation rooted in principled arguments for why we should continue to make distinctions one way or the other is likely the best way forward in making the case of the permissibility, impermissibility, or obligatoriness of enhancement.

Utilizing language that we have good reason to think perpetuates an already existing bias toward one class of actions (EAN) over another (ETN) needs more argumentative support than an appeal to public opinion that has been fed the distinction in this way to begin with. The deep philosophical issue at stake is whether or not enhancement should be defined against the norm or not. To appeal to all of us who have been fed the distinction in that way to do the work for keeping the distinction as a normatively relevant one seems to be begging the question. It's worth noting here that those that utilize this distinction are those bioconservatives that purport to reject all forms of human enhancement (Nick Agar makes a similar point in his 2014 p. 17), including pharmacological

enhancements which are my main focus here, but until we hear further argument for why an appeal to the distinction is helpful I contend that we steer clear of using it given the problems I have pointed to. This is not to say that there is no distinction between treatments that raise us to a norm and those that take us above some species norm. The point I am trying to make is that this distinction is not relevant for those of us trying to get a handle on if a given approach to accomplishing a goal is better than another. After all, if our goal is to give an honest evaluation of those who decide to enhance rather than not, we would be in the best position to do so by expanding our understanding of enhancement beyond the trend started by Daniels and others as defining it as something different in kind from therapy.

2.4 – Settling in on a definition of enhancement

From this point forward, unless noted otherwise, I will understand an enhancement to be:

PHARMACOLOGICAL ENHANCEMENT: any improvement in cognitive or physical ability that comes about as a result of taking a drug to achieve some desired end or goal.

In this section I will provide some reasons to believe this definition is not only acceptable for the discussion on the permissibility, impermissibility, or obligatoriness of any given enhancement but I will also compare it to other options to show why it may be superior to them.

The above definition has several advantages over some of the competing definitions. First, it allows for diminishments to be understood as enhancements. For example, as Earp. Et al (2014) have argued, we ought to see enhancements for their diminishing effects as there may be something to the idea that 'less' may be 'more'. They cite a few examples of such diminishments: soldiers being given propranolol to *reduce* the emotional intensity of wartime memories (Henry et al., 2007); battered spouses using "anti-love" neurotechnology to *sever* the emotional attachment she has with her abuser (Earp et al., 2013); and sex offenders undergoing chemical castration as a condition of parole (e.g., Gupta 2012). These are all examples where an intervention might reduce or diminish a high-order capacity. It's typically a hyperactive rather than normally functioning capacity but it is focused on diminishing nonetheless. These diminishments are commonly understood as enhancements but it is not clear that augmentative definition can account for such cases, at least not straightforwardly.

Further, to fail to see enhancement as diminishment is to suppose that enhancement presupposes optimal levels (neither too little or too much) of the relevant capacities. The diminishment is the enhancement in some cases and so a definition that makes room for that seems preferable to definitions that do not make room for such enhancement. Given that there seems to be an optimal amount of a substance to accomplish a goal, it follows that a definition that allows for that optimization (by diminishing a substance or adding to a substance) is better than those that do not (Glannon 2015). The construal of enhancement as merely an addition in one way or other misses the mark. Yet many of these definitions are construed as such (e.g. Roduit 2015; Nussbaum 2011; Sabin and Daniels, 1994; Juengst, 1998; Daniels, 2000; Kass, 2003b; Pellegrino, 2004.) This definition allows for us to distinguish among types of enhancements, enhancements that augment, diminish, or optimize our capacities.

Further, enhancements understood in the way I am suggesting do not color the perception of enhancement as “the other” as people who choose to define it opposed to therapies seem to do. As I suggested in the preceding section, this poses a special problem for those who define enhancement in that fashion (again see Sabin and Daniels, 1994; Juengst, 1998; Daniels, 2000; Kass, 2003b; and Pellegrino 2004).

But the main reason why I find this definition to be best is because of the questions in which I am interested. We talk about cognitive enhancement in contexts of test-taking, relationships, school, sports, and in discussions of what philosophers have referred to as moral enhancement. Consider these questions: Is it ethical for someone to be enhanced when taking a test to get into grad school? Did Barry Bonds do anything wrong if he took steroids to break long-standing MLB records? Is it permissible to get Lasik eye surgery, as professional golfer Tiger Woods did, whereas the surgery made his vision better than it was prior to any other point in his life? Is it morally objectionable for me to take a drug to help me do better on a test? (Levy 2007) How about playing some music to accomplish the same end? Is it morally permissible to spend time meditating to enhance my ability to relax or slow down from the many pulls of life? How about taking psilocybin (the active ingredient in drugs like LSD and “magic mushrooms”) to achieve the same end? These questions are very similar but they all focus on a drug or procedure we may choose in order to accomplish a particular goal. Thus, a definition that is focused on a skill or capacity itself might be harder to understand in some of these contexts. Given that evaluations of enhancements are comparative in nature, the working definition must then not privilege one side of the comparison in any way, if the goal is to get clear on exactly which route we ought to take (I alluded briefly to this in the last section).

Further, this definition has goals built into the definition which allows us to focus on those goals when evaluating the given enhancement.

When understood in this way, questions about enhancements seem to have **much** practical import, and many everyday questions then become questions about how we should live our lives. In fact, I don't think they "become" questions about our lives, I think they already are questions about how we should live our lives. Understanding enhancement in this way allows us to see this more clearly. Thus, I am arguing that we consider big ethical decisions as decisions that fall under the purview of enhancement. Moral questions that pertain to comparative ways of living are, on my view, questions about the nature of the relation between my goals on the one hand and my view on how each option would enhance my ability to achieve those goals on the other. My definition accommodates this hope to apply the lessons we learn in the enhancement debate to further contexts not normally understood as such.

Consider these questions: Should I go to University to enhance my education and future job prospects? Or, should I learn a trade to enhance my ability to qualify for different job prospects? Or, should I consider another track to accomplish this goal (finding future employment)? Further, once we decide on the first enhancement we then decide on the next. When deciding on University to achieve my goal of getting a job, I am in essence deciding that it is better than

(or equal to) other options available to me. I then must consider how I will achieve the goal of successfully completing my University career. One path might entail taking study drugs to succeed while another does not. One might entail drinking coffee each day while the other does not. But which path is best for me, given that I am the best judge of what is in my best interests? These considerations are not exhaustive. I must also consider how each path can affect those around me, those I am competing with, and those whom I care about as these considerations may often change our view of which path is best. I must also consider the evaluation of the completed task in question, does taking one path over another rightly change how I or others should perceive the outcome?

These questions arise out of a larger goal or set of goals. For instance, we often have larger goals of gaining knowledge about the world and making ourselves a better candidate for a job we'd like to pursue in the future. Once we recognize this, it then becomes clear that this debate has far-reaching implications and can assist us in answering many important practical questions. I contend that when we have competing definitions and one has import or use in more cases than others (all things being equal) then it should be preferred over the others. And, given that my definition affords the debate it's due respect, it seems that understanding enhancement as "any drug or procedure that aids in one's ability to achieve some desired end or goal" is not only appropriate, but, is

the correct way to define the term. But, given that I am only trying to justify its use for the purposes of the larger project of evaluating the moral features of enhancing in a given context, I need not argue against the plausibility of other definitions. Rather, all I must do is show why such a definition is fitting. I have spent some time casting doubt on competing definitions, specifically those definitions that necessarily rely on therapy/enhancement distinction as a starting place because I think certain starting places make the dialectic much harder to navigate. Our working definition now covers the kind of improvements my questions are about; questions concerning drug-induced improvements to one's abilities to achieve various goals.⁸

⁸ Marc Ereshefsky has paved the way for an altogether new approach which I wholeheartedly endorse in his illuminating paper "Defining Health and Disease" (2009). In that piece Ereshefsky claims that all three ways of defining health and disease fall prey to serious objections. Instead we should refocus the discussion. He writes "We could keep looking for the correct definitions of 'health' and 'disease', but this paper advocates a different approach. Instead of trying to find the correct definitions of 'health' and 'disease' we should explicitly talk about the considerations that are central in medical discussions, namely state descriptions (descriptions of physiological or psychological states) and normative claims (claims about what states we value or disvalue). Using this distinction avoids the problems facing the major approaches to defining 'health' and 'disease'. Furthermore, this distinction more clearly captures what matters in medical discussions." (pp 1 *ibid*). Likewise, I believe that such an approach is warranted in the enhancement debate as well. I have settled on the definition that I believe gets us to discussing the states that we want to evaluate.

Chapter 3: What's Wrong With Enhancement?

In Chapter 2 I discussed some issues with defining enhancement. I suggested that one of the main ways it has been defined, defined in opposition to a class of interventions normally referred to as therapies, is not the ideal starting place for most discussions because it primes us to think that there may be something morally problematic with a certain class of enhancements, often described as “unnecessary” or non-therapeutic, and left another class of interventions, therapies, untouched by serious moral criticism. Relying on a pre-existing bias against improvements beyond the norm is not the best way to start a discussion, or so I have suggested. I then suggested, as others have before me, that we be more liberal with our definition of enhancement, ultimately settling in on the welfarist definition as the most plausible with the least amount of assumptions built into it.

The driving force for me to do this was to give us a morally neutral starting place so we could get a clear understanding of what the wrong-making feature(s) are when an enhancement is thought to be morally impermissible. Now it will be important to canvass what others have pointed to as the wrong-making feature of impermissible enhancements. The aim of this chapter is to show why these proposed wrong-making features either don't make it clear as to

why these specific cases of enhancement are wrong, and, to show why they do not work as a universal wrong-making feature for impermissible enhancement. While it may turn out that no wrong-making feature is universal (as Sandel, Kass, Fukuyama, and others have suggested), I do believe that a further understanding of where these criticisms go wrong can help us to correctly diagnose what any particular wrong-making feature might be. Exhibiting where these criticisms go wrong will also help us stay clear of the pitfalls that these criticisms fall prey to. To quote Rob Goodman, “An ethics of enhancement should not rest on blanket judgments; it should ask us to distinguish between the kinds of activities we want to enhance.” (Goodman 2010).

The first set of blanket judgments I will look at are those that focus on whether or not the enhancement is ‘natural’ or not.

3.1 –Enhancement as Unnatural

A majority of the pharmacological enhancements currently on offer are not naturally found in the human body (e.g. synthetic anabolic steroid hormones made to resemble testosterone like androstenediol, androstenedione, nandrolone and stanozolol are one set of examples of this) and many have levelled the criticism that to take them would be unnatural, as if the ‘natural’ is preferred and that the ‘unnatural’ is morally problematic; suggesting that what we care about

in competitive contexts is how a person is born, and/or what is natural? Others appeal to the change in biology as unnatural. So, even if you take something that naturally occurs in the body, the fact that you need to take more of it is where the unnaturalness lies.

In recent years there has been a push by marketing firms to champion products that are natural and to stand clear of products that are derived from any chemical or “unnatural” process. But beyond a disgust that seems to come from some of these products are they bad in themselves? That is, is there something inherently wrong with consuming a product that did not spring from the earth without the help of some further product or process? It’s not clear that there is anything wrong with these products simply by virtue of them coming about in what has been dubbed as “unnatural”. Further, is everything that is natural a good thing? Consider cancer, it occurs in the body “naturally” does that mean we should leave it there? Removing cancer seems not only permissible but also seems obligatory in many respects. Many debating the permissibility of enhancement appeal to the unnaturalness of the enhancement as the wrong-making feature. Steroids are not ethical because injecting them changes the body to something it was not. But this sort of criticism of enhancement seems wrong for a number of reasons.

First, there is clear conceptual ambiguity that must be handled. What does it mean for a method or approach to achieving excellence to be unnatural or natural? The concept is far too vague to do any work on its own in the debate. Giving an enhancement the label of “unnatural” says nothing about the permissibility of that enhancement, or why this feature makes a given enhancement wrong. Nor does it help us to explain what makes a thing natural or not. Is testosterone unnatural? Our body naturally produces it. Is injecting more of it unnatural because our body currently doesn’t have that specific amount? Would eating certain foods or engaging in certain activities which promote testosterone production be natural? These questions are posed to show the problems with the appeal to a pharmacological enhancement being “unnatural” as a feature that would make the use of such enhancements morally problematic. After all, most elite athletes and students who are aware of how their bodies respond to certain foods and stimuli have been engaged in enhancing themselves for years, many by way of utilizing the best enhancement techniques available to them. But maybe there is a biologically informed idea of the ‘natural’ that could play a role in understanding the criticism that pharmacological enhancements are impermissible on these grounds.

For instance, we often say that one is a ‘natural’ in a given context (sport or otherwise) with regards to an activity they are engaged in if they seem to pick

things up without much experience or without the relevant practice one normally needs to be good at the activity in question. Against this backdrop we can see how the use of a given pharmacological enhancement might be deemed problematic. This individual wouldn't be good without this help, therefore utilizing this enhancement is unnatural and problematic, or so one appealing to this criticism might say. But this assumes a few things. First, it assumes that constant practice and utilizing our best science to get better at a given activity is unnatural or impermissible. On the face of it this seems absurd. Suffice it to say that more argument would be needed to cash this out. But, understanding the natural in this way is to assume that the 'natural' has some normative force on its own. But why should we believe that whatever we are born with is sufficient to describe the 'natural'? (see Lenk 2013 for more on this point.). Our bodies are not made of the proteins of other animals or plants yet we see the consumption of such products as morally neutral (especially with regards to plants).

Second, and as argued by Norman (1996), the 'natural' is based on the thought that human excellence should be understood in a given instance only with a backdrop of conditions that are understood as absolute and not a matter of choice. In other words, if something has been manipulated by one's decisions that affect one's performance, then it is in the realm of unnatural and problematic. But this sort of appeal seems to ignore the choice involved when

one chooses a coach, a nutritionist, a time to go to sleep, what one shall eat prior to an activity, and a slew of other considerations that seem to have a clear impact on one's performance.

3.2 – Objection 2: Enhancement and Concerns of Fairness

Many who oppose the use of enhancement appeal to fairness as the source of their opposition. A recent interdisciplinary study suggests this is the primary opposition in cases of pharmaceutical cognitive enhancement (Faber et. al. 2016). They claim “that concerns about unfairness play a crucial role in the subjective unacceptability of PCE (pharmacological cognitive enhancement) and discuss the implications of our approach for the further investigation of the psychology of PCE.”. This finding also meshes with what one might find in popular media articles on the subject (Klosterman 2007), and these types of concerns are raised each and every time I discuss my research with someone not familiar with the academic literature. But what does this charge amount to? Many think that it is cheating (this charge I will handle straightforwardly in the next section. But for those that don't explicitly appeal to cheating how should we understand the charge of unfairness and how should we respond? Who is being treated unfairly?

Past players? Fans? Current players? Other teams? It's ambiguous and may depend largely on how one frames the question.

First we may ask why is unfairness bad in itself? After all, if you were born with good genes and I was not it seems unfair (in a sense) that you have better genes than I do, but what is "bad" about you having genes that are "better" or more equipped to produce the results your hoping for in a given context?⁹ Minimally it seems that further argumentation is needed for this point to be salient for our discussion. John Broome for instance believes that unfairness is bad in itself (Broome 1991). But such a view wouldn't necessarily entail that a given enhancement is morally problematic. After all, an enhancement could be used to make up for an unfair starting point that the genetically gifted individual may have they would not have had, had they not taken the enhancement in question. Despite disagreements over why unfairness may be bad, many do believe that it is (Sidgwick 1893, Bentham 1789). So minimally it is worth investigating for the purposes of making sense of the criticism that unfairness is bad and that we should deem enhancements that create unfair conditions for others engaged in the practice at hand to be bad. It's worth noting that many

⁹ I am trying to stay neutral on which version of fairness one must endorse. This is because it is not clear that everyone who criticizes a given enhancement is working with the same definition of fairness, and this may be the source of the problem with such criticisms in itself. So generically, I will understand something as "unfair" IFF conditions are such that for one person it is harder to achieve a goal (through no fault of their own) than it would be for another to achieve that same goal (again, where the degree of difficulty is not due to historical effort or lack thereof on the part of those being compared).

have argued against the inherent badness of something being unfair or not (Savulescu, 2006; Douglas, 2007; Sandel, 2007; Schermer, 2008; Buchanan, 2011). That said, Maartje Schermer (2008) has argued that enhancements, especially when there are rules against their use, involves violating social rules or conventions, and this sort of unfairness, gaining advantages from exploiting other's adherence to such rules may be morally problematic. But I don't see how this sort of unfairness is different in kind from the unfairness that arises from one having been coached by the best in a given sport or practice or unfairness that arises from one being born with better genetic dispositions. Until this can be accounted for it seems that general appeals to unfairness to successfully criticize the use of a given pharmacological enhancement leave us wanting further explanation.

Another concern that is properly couched under the larger umbrella concerns of fairness is the concern of societal inequality (e.g., Fitz et al., 2013; for a review, see Schelle et al., 2014). Although most would admit that inequality isn't necessarily unfair, there seem to be cases where inequality is unfair. The opposition to these enhancements are not confined to an empirical research. Again, a quick search through numerous media outlets over the past 10 years will turn up a slew of reasons purporting to explain the unacceptability that many have with the use of these enhancements. The research suggests that

nearly all of the opposition to enhancement can be reduced to concerns of fairness (Faber et. el ibid.). So, what is unfair about enhancement?

There a few ways that enhancement could be unfair. One way concerns the unfair spread of enhancement resources. Given that these enhancements cost money it may be argued that income inequalities between the socially better off and worse off, could be exacerbated by the use of such enhancements. The “haves” will have more access to such enhancements widening the already expanding gap in resource inequality. But, as Walter Glannon has pointed out, if pharmacological enhancements were available to all and “not prohibitively expensive, and if the positive effects of these drugs were stronger among the cognitively worse off and weaker among the cognitively better off, then wider use of the drugs by more people would probably not increase inequality. The enhanced cognitive functions could generate more opportunities for the worse off. There would be no leveling down among the cognitively better off, whose capacities would remain relatively unchanged, and there would be some improvement among the cognitively worse off.” (Glannon 2015) Thus, pharmacological enhancements wouldn’t necessarily cause a furthering gap in inequality over time and as such seeing them as unfair because they could exacerbate inequality is speculative at best. This point is also been made by John

Harris in discussion of the difference between positional and absolute goods (2007).

Another way that an enhancement could be unfair is that when one enhances they reap awards at the others expense via deception. Duplicitious reaping of rewards at others' expense seems unfair in a pernicious way¹⁰. I generally agree with this line of thought, but there are a few points worth noting here. First, it's not clear that reaping awards via deception is always wrong though it may be in some cases. Consider a case where your talents are on par with others in a given context but you need a drug in order to gain weight so you can properly engage in the activity in question (e.g. football or wrestling) (let's assume without this weight you would not be able to absorb the hits in the practice in question). It's unclear to me that it is wrong for this person to take the drug that is necessary for him to compete; without taking it he would be in great danger from serious injury given his frail frame. We can further stipulate that his weight is at the societal norm. This added point still doesn't suggest to me that this person has done anything wrong. He took a drug so they could compete without severely hurting himself. In fact, to disallow him to take this drug seems morally problematic as such bans serve to discriminate against those that are not endowed by the genetic lottery. Another point of contention with this line of

¹⁰ Thanks to Jeremy Fantl for this point.

criticism is that it is unclear how this person reaps awards at the “expense” of others. At best it seems that more argumentation is required for us to take this charge seriously. I’ll now attempt to unpack the intuitions as to why one should buy this criticism before casting some doubt on it.

Maybe what is meant by this is that they are not following rules and because others are following the rules it causes them to be disadvantaged in this way? If this is the case then I have a few responses.

First, when trying to get clear on what is wrong with taking an enhancement it seems to beg the question against someone to respond that what is wrong with enhancements is that you’d be breaking a rule and breaking rules is wrong. If there is nothing wrong with an enhancement then it would seem wrong to have a rule against their use. And what we are searching for here is an answer to the question: is there anything wrong with taking a given enhancement? In cases where the enhancement is protecting the person (by allowing them to gain sufficient weight or to compensate for a lacking that would leave them out of the competition) it’s hard to see what they’re doing as wrong (assuming others are fortunate enough not to require the enhancement to compete safely).

Second, many would be disadvantaged by NOT taking the enhancement. So if disadvantage was our concern here, then it is unclear why we would

champion one group of “disadvantaged” folks over others. In fact, if we were to be concerned with any of those that might be disadvantaged it seems that we should err on the side of the have-nots, rather than those who already can compete. By this I mean that a rule banning a particular substance on the basis that it gives one an advantage would hurt those that cannot compete without the help of the drug, or at minimum would be much harder for them to compete without the use of the substance in question. It would hurt the have-nots (the haves are those that can already compete due to having the genetic make-up that allows for them to gain the size necessary to absorb the hits, to use an American football example again).

Third, not all people would gain the same benefits from taking a given enhancement, or any gains at all (recall the caffeine example from chapter 1) so it’s not clear that the charge has teeth.

Lastly, is it fair to one that they were not born in a way that allows them to pursue goals they find most interesting? It’s not clear that it is. Fairness cuts both ways and it seems quite unfair to champion some unfair states of affairs over others without proper grounding.

Under the guise of fairness there are still further concerns. For example, in the context of established sporting practices, one might think it’s unfair to previous players involved in the practice that their records and achievements are

being surpassed by those who now have access to the latest enhancement technology, technology that was unavailable to the players of the past. It's unfair according to proponents of this criticism because current players are utilizing technology unavailable to the players of the past. Such a criticism seems naïve at best to me. First, technology has affected the preparation of nearly each and every sport. Consider watching film of your opponents prior to competing. In American football, basketball, and even soccer and baseball (among other sports) you can study your opponents' tendencies and plays for hours and hours via the best video technology (rewinding and watching plays over and over). This was unavailable in generations past and is seen as a clear advantage to use given how customary the use of the technology has become in recent years. Likewise, there have been advancements in technology concerning diet, food and supplement intake giving players an advantage over players of the past in these important respects. The use of these technologies seems unobjectionable, and it's unclear why pharmacological enhancements are a special kind of advanced technology that requires special treatment. Technology has always seem to aid current athletes in a way that past athletes could not have had access to; so it seems further argument is needed to explain or justify why using pharmacological enhancements are a special kind of technology that ought to be shunned in the name of fairness.

There is one more issue concerning fairness. One might claim that it is unfair to allow people to use pharmacological enhancements because it would force others to take on the medical risks associated with the use of pharmacological enhancements. As others gained advantages from the use of these drugs, those that did not partake in the drug use would be unfairly disadvantaged, and this is concerning to some. I'm slightly sympathetic to such charges, but the sympathetic sentiment has led me to endorse the idea that governing bodies of sports and other practices should be more, not less willing, to allow participants to pharmacologically enhance themselves if they see fit. Some are already reaping benefits from their privileged position in life whether it be their top notch genetic make-up that has endowed them with ideal height for their sport, or with the ability to focus for long stretches without being distracted from their tasks at hand. That said, it is important to note our limited epistemic access to long-term medical risks associated with the use of pharmacological enhancement¹¹. Such individuals gain an advantage against the "have-nots" of the genetic lottery when governing bodies of sports and other practices ban the use of certain substances. For those of us who may need these enhancements to safely partake in the sport at hand, or, to compete with those that have had the

¹¹ If it turned out that dementia or physical disability is likely to result from the use of these enhancements I'd argue that this important fact should be weighed in on whether or not the enhancement should be used. It may turn out that this risk is too high and the enhancement should be seen as impermissible.

good fortune of having the best coaches and teachers along the way, we are now put at a disadvantage by not being allowed to utilize technology that can help us to overcome these deficiencies, deficiencies that we have through no fault of our own in many cases. Thus, given that a ban only serves to keep the have-nots from participating I tend to side with those that are more willing to allow pharmacological enhancements in their sport or practice rather than side with those trying to keep their sport or practice “pure” or free from those of us who may need this help to overcome the disadvantages we face, disadvantages that are present through unfair societal distribution of resources (regarding the best coaches and teachers, and genetic make-up). So it seems that unfairness will be present regardless; why not side with policy and rules that aim to protect and be more inclusive to the “have-nots” rather than policies that aim to keep certain individuals out? Some may respond and point out that if pharmacological enhancements were allowed, then the “haves” will just take the enhancements as well and then we’d be exactly where we started. But this response is a bit too fast; it assumes that more is always better but that it false. What seems more accurate is that there are optimal levels of strength, speed, and concentration in a given practice¹². An example may help. Allowing for the use of anabolic steroids in baseball will not necessarily make those that take them better at the game. In

¹² It’s possible that an enhancement can actually make one worse off and if this is so then such enhancements would make the goal harder to achieve.

fact, if one becomes too bulky it may turn out that they would be worse at the game not being able to throw the ball fluidly or swing the bat as effectively. The details will be specific to the practice in question but whatever it is that makes one good at a given practice it is far from clear that more of a substance will always be better which seems to be the assumption appealed to in such responses.

3.3 Cheating and Enhancement

One of the most prominent charges against one's decision to enhance is the charge of cheating. (e.g. Roache (2008); Schermer (2008); Goodman (2010)) This charge could easily fall under the rubric for the last objection but it is so pervasive that I see it fitting to spend ample time discussing it. My response to this charge will be a bit longer as this charge poses some of the best reasons for rejecting enhancement in many contexts. Though it is brought up in many contexts, the main context it is heard most is in competitive contexts, particularly in the context of sport but also in the context of taking exams and other contexts that require a skill set that utilizes physical and cognitive abilities¹³.

¹³ Though sports and exams are completely different in many important respects they seem to be similar in at least one regard, they are thought to be competitive environments where the score of one member matters to the other.

To properly investigate why the charge of cheating is so pervasive when morally evaluating human enhancement we should take a look at what it means to cheat. I will argue that any attempt in the literature to define cheating falls prey to a dilemma, though it need not. The dilemma goes as follows: either the definition of cheating does not make it the case that it is always morally wrong to cheat, or, the definition is too narrow as it recognizes many of the achievements we find in sport to be the result of cheating. As such, the prospects for cheating as the central wrong-making feature depend upon further arguments that have yet to be spelled out, mainly what it is that makes cheating wrong so that we can then see if enhancements fit that criteria.

Consider the definition put forth by Stuart Green (2004). He claims that that any paradigmatic account of cheating entails essentially two elements, that it violates a prescriptive, mandatory, regulative, and conduct-governing rules. And, that such rules must be fair and enforced even-handily and must be violated with an attempt to gain an advantage over another member of any cooperative endeavour. But this account is not satisfying as there seem to be some glaring counterexamples; in fact, there are troubling counter-examples that seem to show that these two central conditions are neither sufficient nor necessary for cheating. Green isn't alone in detailing cheating in this way.

Consider basketball: basketball players who intentionally foul opponents in the dying minutes of a close game, for example, are breaking a rule to gain an advantage, but (arguably) not cheating. At least we don't demand action to rectify the situation when it occurs, as we do with other clear cases of cheating. And further, when the situation changes sufficiently, like during the hack-a-Shaq period, we do demand change. It's also worth noting that not only have we praised those who employ such tactics as one of the best coaches in recent memory (Gregg Popovich was the coach who employed this tactic) but we are far from considering him a cheat of any stripe.

Another example comes from Badminton. Badminton players who deliberately throw a match in order to get into the (easier) loser's bracket in the tournament are cheating (according to the International Badminton Federation) despite not breaking a rule. And many instances of deliberately under-performing, either for in-game or external motives, feel like cheating, although many (most?) sports and games do not mandate maximum performance or effort on the part of players¹⁴. In other words, it seems that one can cheat even if there are no specific rules against the act in question. If the Badminton example doesn't do the work for you here maybe you can consider the example of flopping in basketball. There is no rule against flopping in basketball (acting as if

¹⁴ Thanks to Allen Habib for this point.

you were fouled to gain an advantage over the other team), yet to deliberately have your opponent charged with a foul and to gain free throws (and the chance for more points) as a result of the deceitful behaviour seems to be morally problematic.

In the face of these difficulties theorists add extra conditions on what it means to cheat, such as that the cheater attempt deception or secrecy, or (to borrow a term from the philosophy of law) that they have *mens rea*-style intentionality concerning the act, or a requirement that the violated rule be fairly applied, to handle these counter-example cases. But no condition is entirely free of troubling counter-examples. In fact, in a recent influential survey of the work in this area by the editor of the *Journal of the Philosophy of Sport*, JS Russell, came to a deflationary conclusion: cheating isn't a useful concept at all, because it is too vague. It is at best an emotivist expression of moral censure, and given its shaming moral scolding tone and other difficulties, we would be better served abandoning the concept as a theoretical constituent altogether, and replacing it with sport-specific moral talk and analysis.

One thing we can all agree on, evidenced by the events just mentioned, is that cheating is *important*. It's a transgression that cries out for rectification: in the form of punishment (as in the recent case of Russia's breaking of the rules prior to the 2018 Olympic games), or amending the rules, in the creation of new rules,

or multiplying the arbiters, whatever the response, cheating is a justiciable event. When we say someone cheated, we imply that the situation is unjust, and that something must be done as a result. But what is cheating, substantively? The standard view is that cheating is action on the part of a player that a) breaks a rule, and b) does so to gain an advantage over opponents. But as I have noted, such a view has some glaring counterexamples only two of which I have mentioned here.

So, I propose a kind of sophistication in our moral talk about cheating—I don't think we need to abandon the concept, or deflate it away as Russell suggested. Rather, taking a page from the philosophy of law, we should construe cheating as a justiciable transgression against the 'rules of the game' (written or not), and focus our attention on the composition of those rules¹⁵. But here it will be important to distinguish two different types of rules: rules constitutive of a sport and preparatory rules. The former rules are rules that make the game what it is, where the latter rules are rules designed to dictate how one can prepare for competition.

I argue, that enhancement should be regarded as cheating only when enhancing is understood as a justiciable transgression against a 'just' rule of the

¹⁵ This approach has been discussed at length in Caouette and Habib (2018) "Enhancement and Cheating: Implication for Policy in Sport" in *The Handbook of Philosophy and Public Policy* (David Boonin (ed) Palgrave Macmillan. To summarize, we use a Dworkinian approach to law, his interpretative stance, to weigh in on the rules that govern the sport or practice in question. Thus, we take this stance to the rules against pharmacological enhancements.

sport (written or otherwise), or, when enhancing fails to render the satisfaction of a good internal to a sport or practice as an achievement (I'll say more about this in the next chapter). Many preparatory rules can be unjust; they discriminate against numerous individuals who may be interested in partaking in the practice in question. Consider Benji, who may have the arm strength, accuracy, and speed to be a productive quarterback at the Division 1 college football level. The only thing holding him back is the ability to put on 25 pounds of muscle to be able to absorb the sorts of hits he'll face at that level; otherwise Benji has what it takes to be one of the best. Anabolic steroids may be a way for him to gain such weight. If such an enhancement can bring the help to deliver the results that are necessary to compete without major risk of injury (185 pounds vs 160 pounds), it seems unobjectionable for him to pharmacologically enhance, assuming there are no physiological risks. But without an enhancement he won't be able absorb the hits which in itself could cause harm to the person receiving the hits. As such it may even be objectionable to prevent such an athlete from enhancing. .

Disallowing some enhancements (by having rules against their use) seem justified only to stave off health risks. When health risks are not clear then the rules barring enhancements should have some grounding given that barring enhancements is a discriminatory practice. All discriminatory practices owe an explanation to justify them. If rules are in place to prompt up the 'natural' over

the 'unnatural' this will not suffice unless of course it can be shown why we should prompt up the natural in a given context. When reflecting on the justification of a criticism of enhancement it's important to ground why that justification should be enough. Appeals to cheating to explain the wrongness of a certain pharmacological enhancement seem to either miss the mark completely by begging the question (appealing to the breaking of the rule will not suffice, further justification is needed), or, seem to encompass what's wrong with a given enhancement by chance without much in the way of explaining why. Let's now turn to safety concerns associated with the use of pharmacological enhancement.

3.5 – Enhancement and Safety Concerns

One reason that it may be impermissible to take a given enhancement, or, one reason why a ban on such substances may be legitimately invoked within a given context is for serious health concerns. After all, this is why many of us accept the use of protective equipment in a number of sports, and understand the purpose of many rules and even laws that limit the number of substances one can be on when on the job (e.g., surgeons banned from having alcohol when on call or on shift). Performing a number of jobs under the influence of drugs that present great risks of liability seems problematic and these concerns hold for any given enhancement as well. So, it's not clear that we should have an issue with a

rule [or law in some cases] prohibiting a substance for these reasons. Although prima facie this may be grounds to create a ban, it's not clear that taking it upon yourself to take such a risk (assuming the risk is reasonable) should be impermissible, morally speaking. Have you done anything morally wrong by choosing one way to prepare for competition over another? It's not clear to me that choosing a given pharmacological enhancement regime, backed by studies on the efficacy of the use of said enhancements on workout results, is **always** wrong even if it brings a high risk¹⁶. In fact, as our technology gets more sophisticated and our understanding of the pharmaceuticals gets deeper as they get used more and more over time it's quite possible that we come to see the risks in a much more favorable way.

We already allow people to take risks in life and have for as long as we saw liberty as a value worth preserving. Consider that we don't police the diets of athletes, diets that put players at high risk for heart disease, stroke, and a multitude of serious health conditions. Diets resulting in players being much heavier give some of them an advantage when competing [They also put them at risk of cardiovascular disease, type 2 diabetes and stroke.]. We also don't police the amount of sleep students get; getting far too much or far too little sleep

¹⁶ I admit that such enhancements could be wrong if it has harmful effects on others, or, if the enhancer makes claims on the public health system for medical conditions resulting from voluntary enhancement. (Thanks to Walter Glannon for this point)

presents a slew of short and long term health concerns. It's safe to say that we don't do so because we value that people have a right to prepare in whatever way they see fit, health concerns aside for the most part, and this suggests that appeals to health concerns for enhancements are either overblown as their doesn't seem to be sufficient evidence to expect the proper use of such enhancements (correct doses, administered in the right way, monitored closely if doing so can minimize side effects) to result in any health concerns that are any worse than the choice we allow for one's diet or workout regime, or, seem disingenuous or inconsistent at best.

Having the ability to decide how we accomplish our goals seems to be a very basic right we hold dear, though not absolute. Many of us require more than a paternalistic concern about our safety to justify why I ought not be allowed to do something I see fit. This is not to say that we believe that there are no limits to what we can do in the name of liberty, far from it; only that since it is something we value, appealing to our health is certainly a consideration we hold important, there are times when taking on a further risk seems warranted. This is just to say that if we truly care about health, the least that would be required would be to show that a particular enhancement presents such a concern. If such concerns have been substantiated, then it is likely to follow that such enhancements should be eschewed in favor of other means to accomplishing a

given goal. Interestingly, many of the substances at question in the pharmacological debate don't seem to present such high risks. This is often why such drugs are approved for consumption¹⁷, they are relatively safe to consume; often no more risky than a diet that includes fast food or processed food as a main source of nutrition presents to our short and long-term health; or a regular study session that include multiple energy drinks. Of course this all depends on the drug. Most drugs have distributed metabolic effects in the body, not all of which are good or benign and as such we should weigh in the effects when deciding to enhance or not.¹⁸

Given that enhancements can be safe if administered properly, appeals to the risk of one's health should be taken on a case by case basis and we should be consistent and err on the side of autonomous choices when we can¹⁹.

Notice how this objection against the use of enhancements is paternalistic in nature. When considering the moral permissibility of a given pharmacological enhancement, the risk one incurs to their health is certainly a fair evaluation to consider but it is rarely moral in nature unless the risk is unreasonably high.

Thus, our search for why a given enhancement might be morally impermissible in a given context will rarely be justified by appeals to health concerns.

¹⁷ Another concern here is the greed rampant in the pharmacological industry. They tend to minimize the risks associated with their drugs. Elliot (2004) discusses these concerns at length.

¹⁸ Thanks to Walter Glannon for this point.

¹⁹ Assuming that this includes taking responsibility for any adverse effects, including having to possibly paying for the medical costs of these effects.

I raise the criticism against the use of pharmacological enhancements because of some empirical research that focused on how members of the general public perceive a number of pharmacological cognitive enhancements and that research pointed to concerns regarding medical safety (e.g., Scheske and Schnall, 2012). The reason why this study came up with different results to the results presented in 2.1 is likely due to the sorts of questions that were asked in the different studies. Regardless as to why there was a difference in the results it seems apparent that health concerns are legitimate in the context of evaluating human enhancement of all stripes. After all, if one is to become ill due to an enhancement it is likely best to consider different ways of accomplishing a goal.

Safety concerns seem to be one of the central arguments against pharmacological enhancement. These criticisms often begin with the premise that it is unsafe: most of the substances used by athletes and test takers to enhance their performance carry significant health risks, including a risk of death. For example, there have been a significant number of professional cyclists and some elite runners that have in fact died prematurely of heart attack or stroke, presumably because of erythropoietin (EPO) and stimulant abuse (see Robinson, N. et. al. 2006)

Similarly, the abuse of androgenic steroids has been associated with increased risk of cardiovascular, hepatic, and endocrine disease as well as

psychosocial abnormalities (see Mooradian, D.A. 1987). Due to the nature of harm caused by the use of these pharmacological enhancements it seems warranted to believe, at first glance, that this would justify the charge that using them would be morally wrong. But this would be too quick. Even if assume for the sake of argument that using pharmacological enhancements that can lead to death is intrinsically and unavoidably dangerous to those who use them, it doesn't follow that using them is morally wrong (in EVERY case). After all, we often think putting ourselves in harms way is not only permissible, but admirable given the specific context of the act in question. What we should be asking is whether, and how much, this point regarding the risk matters, morally speaking. We should ask, that is, regarding the use of a given pharmacological enhancement as wrong, if compromising an athlete's safety is consistent with other practices in sport and our moral thinking more generally. Specifically, whether pharmacological enhancement adversely affects others or the self—directly or indirectly and if they do, how to square these risks with the virtue that is in play for the given sport and enhancement in question.

But once we do this, we have at least two things to consider. First, the typical practice of professional athletics, amateur athletics, studying for exams, and completing our job tasks, that may present health concerns themselves. This suggests that safety is not of overriding importance, especially for those sports

that present a high risk of injury before enhancements are even considered to compete.

For instance, truck drivers are at the highest risk of getting into a car crash with their long hours on the road (cite). Pilots have the 2nd highest rate of fatality over all jobs (40 per 100,000) (cits). Sure, one could choose a different profession but we often do not call choosing such a profession a moral failure, at least it's not clear why we should. We weigh the safety consideration against other considerations including the joy we get out of the job, the compensation we receive for the job we do and risk we take, among other considerations that may afford us opportunities to engage with more family time or a social life we see fit for ourselves.

The same holds in professional sports where they tend to present high risks to one's health. Even without the use of pharmacological enhancements it seems that safety is a consideration that is weighed against and is often subordinated to others like: the performances of athletes; entertainment value of the game; autonomy we value in how one prepares for competition; intensity of competition; commercial interests; or for the love of the game.

Claiming that pharmacological enhancements are wrong because they are physically unsafe seems to assume that a person's physical well-being is of special value in comparison with other interests, though we often do value our

well-being, and I'd argue that we should, it's not clear that such considerations automatically trump other concerns.

It seems obvious that not only various sports like automobile racing, hockey, American football, snowboarding, rock-climbing, hiking, UFC fighting, boxing, and even mountaineering are straight-forwardly dangerous, yet we often conclude that at least in some cases, such activities are perfectly fine (morally speaking) to partake in. Even some jobs such as being a pilot, a teacher, or a truck driver bring certain health risks with them. And for those that decide to pursue such endeavours are rarely looked as having done morally wrong. These risks do not seem to prevent people from pursuing them nor does the danger present us with moral grounds (that cannot be overridden) for rejecting their pursuit as morally impermissible.

It's important to note that this point is not just about the health risks associated with competition or with the job performance in the moment. Many of these decisions to compete in the aforementioned sports and/or to work one of the aforementioned jobs also involve training regimens, or sleep patterns, that are quite dangerous: for instance, truck drivers must drive their trucks, race car drivers must drive their cars, pilots must fly their planes, cyclists must ride their bicycles, and football players must practice multiple times a week which consists of tackling which leads to multiple injuries (including well documented brain

disorders in the long term and concussion in the short term), and rock-climbers must climb in order for them to prepare effectively for their events. Again, this is not to say that health risks do not matter or that they should not be taken seriously, only that they can be overridden. This is also not to condone sports like American football, as I believe the sport itself could be objected against (morally speaking) on grounds that it presents severe long-term risks to brain health. But acknowledging that these risks could be objected to on grounds that they are risky to one's health is not an overriding reason to criticize each person's participation in the sport itself. I believe that such considerations should be weighed out in each context and sometimes the risk should be taken, depending of course on the virtue at play in each decision making processes and the actual risks that one would incur. This goes for the decision to play a sport in the first place as well as one's decision to pharmaceutically enhance oneself as well.

Within the context of playing sports (and in other contexts), there seems to be a *prima facie* inconsistency in the argument that the use of a given pharmacological enhancements is wrong *because* it is unsafe when the athletes who would choose to use the drug are exposed to other risks simply in virtue of their participation in the sport or practice in question. This holds for a number of other professions as well. If it is permissible for people to choose intrinsically dangerous professions over others, or for athletes to play certain sports that

present high risk of severe injury and to engage in intrinsically dangerous training regimens or lifestyle choices, then it should not be impermissible for them to use pharmacological enhancements on the grounds of safety alone, unless it can be shown that the given enhancement crosses some line of risk that is beyond the amount of risk we find appropriate. Of course some account must be advanced and defended and I would be open to adopting such an account. If the safety of workers or athletes were of overriding moral concern, then allowing them to engage in such endeavours would be thwarted as would allowing the use of pharmaceuticals to enhance their performance in these respective sports.

We would leave the athletic realm to golfers, chess-players, and ping-pong stars and would relegate our acceptable professions to office work and writing of various stripes. Furthermore, it's also worth mentioning that many of these pharmacological enhancements that have been called into question as morally problematic have healing affects and allow competitors to gain muscle mass that may benefit them in absorbing the hits that are central to their respective sports. In other words, it's unclear that the health benefits that could be gained from the use of a given enhancement do not outweigh the elevated risk of injury to another part of one's body. And even though such reasoning might sound consequentialist, it's important to note that practical wisdom should be

used in each case and such wisdom incorporates knowledge of possible negative outcomes into its methodology in the decision making process.

One could attempt to avoid the above inconsistency by drawing a distinction between *intrinsic* and *extrinsic* risks, just as I will suggest later that we should do regarding internal and external goods, at least in the context of sport. The intrinsic risks of a sport are those you *must* assume if you want to compete in the sport at all; other risks are extrinsic (Brent M. Kiouss makes this point in his 2008). The risks associated with doping might then be called extrinsic: a professional cyclist can avoid the risks of sudden, massive heart failure associated with EPO use simply by not using EPO. But the risks of crashing in a race or being hit by a car while training are intrinsic: he cannot altogether avoid them without ceasing to be a cyclist. (ibid)

Kiouss has a nice response to this line of argument. He says: "There are at least two problems with this move. First, many of the risks that are intrinsic to a sport (or which must count as such if this argument is to work) are at least to some extent under an athlete's control and *not* risks that one must assume in order to play the sport at all. Instead, they are just risks that one *may* assume if one wishes, if one judges that assuming them is merited by the corresponding competitive benefits. If one is a professional cyclist, one must decide how aggressively to take the descent off of Le Col d'Izoard in the Tour de France;

depending on the conditions (whether the road is wet) and the state of play, descending more or less aggressively may increase or decrease one's chances of victory as well as one's chances of injury or death. One must make a judgment about what to do in light of one's assessment of these chances and the importance one ascribes to them. One could even decide to *walk* down the mountain rather than riding, which would be incomparably safer—but this would, of course, place one completely out of contention". (ibid)

Note that the decision to descend more or less aggressively (or, similarly, whether to train on risky public roads or exclusively on a safe stationary bicycle) looks very much like the decision to use EPO or not: using EPO (like descending aggressively or training on public roads) increases one's chances of winning but carries an additional risk of death and injury. We should doubt, then, that the intrinsic/extrinsic distinction could help us see that doping is wrong; we cannot immediately claim that the risks of doping are extrinsic, in that like many paradigmatically intrinsic modes of play, it is part of a competitive strategy that depends on his assessment of its risks and benefits before adopting it.

Another response to safety concerns says that we might consistently believe that we are obligated to ban pharmaceutical enhancers for safety's sake, since professional sports regularly *do* implement safety rules. For instance, American football players and hockey players are required to wear helmets and

protective padding; professional cyclists are required to wear helmets; racecar drivers are required to wear helmets and flame-retardant suits, and drive cars with air bags, roll cages, five-point retention systems, and so on. These, the objector could say, are examples of practices that are required *simply* on the grounds that the alternatives are unsafe, setting a precedent for rules that ban doping (Mohein 2016).

But this response seems to miss the mark as well. The above examples are requirements designed to enhance safety, no question about that. However, they are also requirements that arguably do not impinge, at least not substantially, on the performance of athletes. Similar examples could be generated regarding the ban of certain substances by employers to ensure that their employees do their job safely (here I am thinking of most professions that ban the use of alcohol or cannabis). This suggests that safety, at least in professional sports and other jobs, is ordinarily a secondary consideration: it is, within limits, subordinated to other interests served by competition that people find more important. We might doubt, therefore, that an interest in protecting athletes' safety should be decisive in the case of doping, which is only one consideration that can be outweighed by others. In other words, safety doesn't make a given enhancement morally wrong *per se* even though I grant that it is a consideration worth considering in each

and every case given how experimental many of our pharmaceutical use may be in a given sports context.

Another response one could levy against those that may pursue the use of a given enhancement is that there is something rather narrow-minded about the focus on athletes' physical well being. For any individual physical safety is only one value that can, and should, be traded against others; it is not clear, therefore, why we should worry so much about it when it comes to enhancing. As I have already suggested, the willingness to sacrifice one's safety for a competitive advantage is not necessarily unethical and it may very well be unethical to refuse a given enhancement as I will detail later on. I grant that it may be unethical to enhance in some cases but this coarse-grained approach clearly misses the mark in other cases where a slight increase in injury does not outweigh the successful play that could result in millions of dollars for the athlete; or in achieving personal goals and goods internal to the practice that both athletes and non-athletes are engaged in. Another noteworthy thing about professional athletics is that it is associated with all sorts of high personal costs for the athletes involved. Professional athletes often forgo educational and employment opportunities and are unable to participate in various social activities²⁰; they face strains on their

²⁰ And they do so grasping to the small chance that they can cash in on their talents and abilities. If we believe that at least some of these cases are justified then we need a way to show why taking those risks are okay and it is NEVER okay to take the risks associated with a given enhancement technology.

relationships with family and friends, and miss out on various other activities in an effort to achieve greatness at one of them. For the vast majority of these athletes, these sacrifices are not offset by comparable social and economic gains—being an athlete does not make everyone rich and popular (see Kious *ibid*). But interests of these sorts are just as important to the quality of a person’s life as his or her health—we are all familiar with people who sacrifice health and safety for entertainment or for their jobs, and all of these choices are potentially reasonable. Since we think that athletes should be able to assume these other costs in their pursuit of sport, and since those costs are no less significant than the costs of ill health, it seems that it is permissible that they accept risks to their physical safety, including those involved in doping.

Likewise when deciding to pursue excellence in a certain job, it seems that if more risks are incurred in trying to excel rather than do a job adequately, it is unclear that doing so carries a negative moral evaluation. For instance, if I take Adderall that raises my risk of having heart palpitations, it is far from clear why that fact outweighs²¹ the productivity that could be gained (and hence say financial gain that accompanies it) as a result. This is not to say that health concerns are not legitimate to ask in the debate, only that such appeals are often left to the agent and are not on their own enough to do the work to generalize

²¹ Of course if these palpitations are likely to develop into atrial fibrillation, then there would be a clear reason to reject using the enhancement.

anything substantive about the use of a given pharmacological enhancement. Instead, science should be conducted on the proposed pharmacological enhancement so that an informed decision can be made by the agent weighing the pros and cons of any given substance or lifestyle.

3.6 Enhancement and the Strive for Perfection

Returning to the work of Michael Sandel (2004; 2007) we see a thread of criticism that is rooted in a virtue framework concerning a character flaw that he thinks is present in those seeking the enhancements being discussed in this dissertation (as well as other forms of enhancement). According to Sandel, to seek perfection is to exhibit a vice; enhancements express and promote problematic human dispositions, in his words: “the deepest moral objection to enhancement lies less in the perfection it seeks than the human disposition it expresses and promotes” (Sandel 2004, pp 57). Again, as mentioned earlier, seeking mastery “threatens to banish our appreciation of life as a gift, and to leave us with nothing to affirm or behold outside of our own will” (ibid pp 62). I understand Sandel to be claiming that the virtuous person will not seek out enhancements because to do so would be to put the aim of being “the best” front and center, and this shouldn’t be our aim in many of our human endeavors. I

think this is an important criticism! Ultimately I disagree with Sandel that to seek enhancement is to necessarily exhibit a character flaw. The reason why his criticism is important to me is because I see it as providing important insights into what might matter in a given context where enhancement is a live option. We should care about overly focusing on one goal to the detriment of others. To do this in all aspects of our lives would certainly be a character flaw and if that's what seeking enhancements shows us then all the worse for those adopting a view that finds them morally unobjectionable.

Further, and as Francis Kamm has discussed in her response to Sandel, Sandel believes that if we were to use enhancements to accomplish our goals it would force us to take a more objective view about ourselves. In doing so we would be losing out on important connections we share with others. Further, we can always look back and blame ourselves or others for not enhancing to eradicate some flaw, whereas now we can just accept our lot in life and relate to one another through the flaws that we share. This new enhanced world would create a disconnect between our shared experience as flawed individuals and this is a concern for Sandel. Let me now explain why I part ways with Sandel and offer some arguments to support the claim that pharmacological enhancements are unobjectionable if they are reasonably safe to use.

Sandel believes that staying “open to the unbidden” allows us to connect with our fellow humans in an important way. If we all enhanced ourselves we would turn to blame those that did not enhance rather than relate to them (and sympathize) with the luck that currently brings about our talents and flaws. It’s important to notice that such objections are general. All enhancements (understood as laid out by Juengst and Mosely above) are wrong for Sandel because of the disposition it exposes. The disposition to enhance threatens the virtue of humility, and traits such as responsibility, and solidarity.

Interestingly, as with many critics of enhancement, Sandel still wants to appeal to treatments as morally unproblematic. He attempts to do this by focusing on the “natural”.

Treatments are unproblematic for Sandel because they allow natural capacities to flourish while overriding natural capacities are enhancements and open to his critique. But as Frances Kamm rightly questioned in her response to Sandel (Kamm 2007) “why does appreciation of nature’s gifts require (us) to limit ourselves to them? We can appreciate what is given and yet supplement it with something new, even when we are not compensating for a defect” (ibid pp 20). Further, why think that it is our genetic flaws that keep us connected? It is the human condition that binds us all. Our ability to feel pain, both physical and emotional, our ability to handle life’s curve balls and keep moving forward; our

ability to connect with others who go through traumatic experiences; trying to figure out what to do with our lives; these are the sorts of connections that connect humans to one another, not a recognition of our abilities that were “given to us”. If there is a recognition that binds us all it is the recognition that we are alive and that alone can and often does generate the kind of connection that Sandel is concerned with when calling enhancements into question.

I agree with Sandel in much of what he has to say which is why it is so surprising to me that we end up at different ends of the spectrum on the issue of enhancement. Like Sandel, I am quite sympathetic to a virtue ethical view over competing theories. The concerns he raises with regards to character flaws and appreciation for our fellow living beings are important to me as they ground the basis of the ethical view I find most salient. But unlike Sandel I don't see why utilizing pharmacological enhancements must result in a negative moral evaluation. This negative moral evaluation is warranted for Sandel for at least 2 reasons: (1) seeking enhancements exhibits a vice because it exhibits a focus on perfection and such a focus has problems, and (2) utilizing enhancements will change the way we fundamentally relate to one another as flawed and unique individuals.

Having already spoken to the concerns raised by (2) in the previous paragraph let me turn to (1). I have two general responses to (1): First, the term

“best” is vague. Consider two individuals, Ryan and Lee; both strive to be the “best” at disc golf. Lee’s understanding of “the best” in this context is to be the best *he can be*. He is focused on *his* skill set and when engaging in the practice of disc golf he is trying to overcome his past failures by incorporating the best approach that he can when throwing the disc. Such throwing consists in knowing how much strength to use, how strong he must be, seeing obstacles properly, knowing how to throw the disc in a way that can maneuver around the obstacles, and so on. “The best” Lee when on the disc golf course is to have the proper skill set and to execute that skill set during competition. When “the best” is understood in this way it seems unobjectionable to utilize a pharmacological enhancement to achieve that state for Lee. As long as Lee engaged in the practice in such a way that he was able to accomplish his personal goals while still accessing the goods internal to the practice of disc golf, then taking such enhancements and striving to be “the best” in this way seems unproblematic. Lee decides, after playing the game and gathering a deep understanding of the goods he hopes to garner during his engagement in the practice of disc golf, that he ought to take a cognitive enhancer to help him relax during his performance and an androgenic enhancer to help him gain more strength in his throws after realizing that they were falling just short of the pin, even after trying multiple techniques and training regimes. This scenario seems unobjectionable to me and

this understanding of “the best”, in terms of Lee’s own best, seems to be a worthwhile goal to pursue. However, I don’t think this is the way that Sandel understands “the best” and I believe this is why we disagree; though I’ll argue that he should be open to understanding the Lee scenario in a similar fashion given his affinity toward virtue ethical frameworks (Sandel 2007).

Now consider the case that incorporates a different understanding of “the best”. Ryan is striving to be the best at disc golf; the best to ever play in the state of Washington and ultimately the best player ever. Unlike Lee, Ryan is striving for “the best” in terms of other people. Let us assume that Ryan has only played disc golf three times and doesn’t know much about what skill set the game requires. Ryan decides to take a pharmacological enhancement to get better at disc golf; the same drugs that Lee decided on. This case is importantly different for a few reasons, one of which will speak to the aims of each individual which will in turn speak to the different conceptions of “best” at play in the dialectic. With Lee, his aim to be the best he can be seems to be realistic. Further, in setting his bar he is sure to be focused on the goods internal to the game. Enhancing too soon in one’s journey could lead one to miss out on some goods that they would otherwise get if they didn’t enhance. This isn’t the case for Ryan and this could be a reason to push back. Although there is nothing wrong per se for striving to be the best at anything, I do recognize the concern that Sandel raises; when one

strives for mastery, or perfection, one can get caught up with it by fetishizing it over other ends. But desiring perfection, or to “be the best” (especially in the sense I have understood it) is not inconsistent with affirming other good aims.

But it’s important to mention here that Sandel himself doesn’t really consider my construal of “best” and so even if one grants that Sandel’s concerns are legit for his understanding of “the best” further argument would be needed to support the claim that pharmacological enhancements ought to be bypassed because seeking them out is morally problematic. They can appeal to my understanding of best and learn an important lesson from Sandel in doing so.

Sandel says that “the deepest moral problem with enhancement is the human disposition it expresses” (ibid 2004), thus he sees the deepest problem in enhancing is the kind of person it would take to want to enhance. But this sort of appeal already begs the question against those of us searching for why a given enhancement may be permissible or impermissible to use in a given context. Why is seeking out the most efficient way of accomplishing a goal morally problematic? What is it about seeking such enhancements that makes a person “bad”, or suggests their character is flawed in some important way? I don’t think Sandel provides us with a clear answers to these questions. Sandel himself allows that training and use of technology to bring out natural gifts is permissible, as Kamm noted in her excellent reply to him (2007), and if

pharmacological means bring about the same result then Sandel should accept their use as morally permissible as well. Kamm's example of voice training is poignant here, she says "So suppose that a certain amount of voice training is permitted to strengthen vocal chords. Would a drug that could strengthen vocal chords to the same degree also be permissible? If the argument Sandel gives does not rule out training, it alone will not rule out transformation by drugs or genetic means because a gift is transformed to the same degree by each method" (ibid pp 26). In the next chapter I will speak to enhancements that transforms one's "gifts" (as Sandel refers to them) beyond what existing training techniques can do but for now the point here is to recognize that if his argument doesn't rule out these pharmacological means of transforming one's talents or gifts then they should be seen as permissible by his lights. In fact, having the type of character that doesn't even consider other avenues to complete a task or goal would seem to be a vice in that one is intellectually closed off to avenues of action that may, for example be more efficient, less costly to one's body, or less risky to one's overall well-being. I'd argue that being disposed not to consider multiple avenues when one has the time to consider these avenues to be rash at best and more likely to be foolhardy more often than not.

Setting aside concerns related to the strive for perfection, Sandel also criticizes enhancements on grounds that they burden their users (and others)

with responsibility. Sandel believes that people would be blamed if enhancements were allowed and they opted not to take them or give them to others (say one's child). Like Kamm, I would push back and say "not necessarily". But unlike Kamm who pushes back by saying "one does not have a duty to do everything that could make oneself or someone else better, and if one has no duty, then one is not at fault for not enhancing and so not to be blamed", I part ways with Kamm. If it is clear that enhancing is best, then I'd argue one ought to enhance. It is difficult to see a relevant difference between moral duty and moral obligation. But putting this aside I'd like to focus on concerns connected to blame. Even if one fails to fulfill their duty or moral obligation it doesn't follow that blame is warranted. The aims of blame are highly contentious (see Mckenna 2012 and Coates and Tognazzini 2012; 2013) for a nice discussion on the aims and nature of blame). One can be blamed for performing the best possible action and one can be blamed for performing suboptimal actions. Overt blame is informed not only by the act, or the failure to act, but by the reasons one had for acting or failing to act. Thus, one could fail to enhance, and in doing so be blameworthy for failing, but we may be unjustified in blaming another if their reasons for failing to enhance were weighty enough²². My point here is that Sandel needs to provide us for why one would be justifiably blamed in all cases

²² This would be my response to Alfred Archer (2016) who raises similar concerns as well.

where they fail to enhance. It seems reasonable for one to refuse to enhance their ability to concentrate if the side effects of using the PE made it harder for them to achieve goals outside of the one being considered for the enhancement in the first place. Thus, concerns of blame seem premature at best.

Without further argument it seems that we should not see pharmacological enhancements as morally problematic (as long as they are reasonably safe)²³; instead we should see them as one way of accomplishing a goal and in fact often times this might be the best way (or only way) to accomplish said goals.

²³ I'm attempting to stay agnostic on the EXACT risk that would deem the enhancement problematic. My main point was to show that it's not clear that a slight risk to one's health would automatically make a given enhancement morally problematic. But even if one could successfully argue that any amount of risk is reason to always reject their use (which is highly contentious), it's important to realize that enhancements would be morally permissible if they could be safely taken.

Chapter 4: Achievement, Virtue, and Human Excellence

Over the last two chapters I have discussed two sets of issues. In chapter 2 I was concerned with how we should define enhancement and some of the issues that get raised when we start our discussion from one place rather than another. In chapter 3 I focused on issues relating to the wrong-making features others have identified to ground their claims that enhancement is morally impermissible and have shown that they often miss the mark. Or minimally, that such appeals ought to be evaluated on a case-by-case basis. But what should we be looking at in such contexts?

It seems from the discussion in that last chapter that *general* appeals to enhancements being unfair (or cheating), unnatural, or concerning to one's health seem to miss the mark. They fail to provide us with a way to consistently evaluate human enhancement and fail to offer us a unifying wrong-making feature that may or may not underlie these judgments.

In this chapter I will suggest a framework for evaluating pharmacological enhancements that is goal-orientated and centers on the concept of an achievement. To motivate this framework I discuss a virtue-centered ethical theory that seems well-equipped to assess human enhancement as it can accommodate the considerations of a variety of perspectives and contexts. Given

that the enhancements I focus on in this project are distinctly *human* enhancement, and given that they always occur in a *social* context, often times alongside discussions of human excellence and human flourishing, it will become clear (or so I will argue) that a robust understanding of human achievements and the role they play in a well-lived life is well equipped for the task. Although it is true that virtue frameworks have been called upon to help navigate the morality of human enhancement in the past (See Kass 2015; Sandel 2007), I believe the conclusions drawn from such frameworks have tended to be more restrictive than their non-virtue centered counterparts. From this very short history of utilizing a virtue approach to evaluating human enhancement, it's fair to consider most virtue frameworks as resulting in "conservative" conclusions about the morality of human enhancement. Interestingly, the conclusions I will draw will not be so restrictive. In fact, not only will my approach be permissive of many human enhancements, but I'll argue that the framework is likely to produce a slew of moral obligations to enhance in many contexts, an issue I discuss in depth in Chapter 5. One conclusion to draw from this approach is that a virtue framework is not only compatible with human enhancement, but will generate moral obligations to enhance once it becomes clear why a life full of human achievements is best. I will argue for this approach by appealing to three lines of inquiry.

First, I will motivate the framework by drawing from a number of basic assumptions about human nature and human flourishing. After giving some reasons for adopting these assumptions I'll discuss some shared goals we all have, shared goals that follow from these initial assumptions.

Next, I will enter two debates concerning human achievements. The first debate is on the nature of human achievements; what are they? In this debate I will offer a robust understanding of human achievement that rejects two prominent notions offered by Simon Keller (2004) and Gwen Bradford (2013; 2015a; 2015b). I borrow much from Bradford's account as spelled in in her book *Achievement* (OUP 2015a) and add a further condition to quell concerns raised by its expansive use. The second debate centers on assessing the importance of a given achievement; What role do achievements play in a well-lived life?

Lastly, I will detail a comparative goal-orientated approach to morally evaluating human action, and, apply it to accomplishing our goals within the social practices we decide to engage in given our specific desires and talents. Comparing multiple options to accomplish our goals will always include considerations about the practices themselves, which will serve to constrain the salient moral options in a given context. Thus, a brief description of what practices are and how their constraints will aid us in evaluating the use of human enhancement technology will be a central component of this final section. I argue

that the nature of the practices will dictate if the context is moral or not. I conclude with the use of some examples to model how the framework works for permissible, impermissible, and obligatory enhancements. I will show how the robust conception of achievements I offer works within the contexts of numerous practices.

One goal in this chapter is to suggest a wrong-making feature that can be applied to most of our instances of impermissible enhancement as well as offer a way to understand why other enhancements are permissible or obligatory in a given context. Given that I have put pressure on attempts others have appealed to in order to justify the evaluation that many human enhancements are morally impermissible (cheating, fairness, health risks, appeal to the natural, etc.) it is now important for me to offer an analysis that does not fall to prey to those objections I have raised. But the bigger point I wish to make in this chapter concerns the need for a context-sensitive approach that focuses on the goods internal to the activity in question. Once we recognize why a given practice is important, and what goals we wish to accomplish by participating in the practice, only then can we evaluate if a given way of accomplishing the goal within the domain of a given practice is better or worse than another; morally permissible, obligatory, or impermissible.

To fully grasp the importance of an achievement and its role in our lives, I will now set the stage by motivating a certain conception of human nature, and a view of ethics that fits well and follows this conception. I will argue that a virtue-centered ethical approach is most fitting for the job, and will detail how the concept of human excellence is best when trying to wend our ways through the many ongoing debates and contexts surrounding and/or involving pharmacological enhancement (and enhancement more generally). Though it may turn out that other ethical theories could borrow what I have to say about achievements and utilize the concept of achievement for their purposes. I will not argue against this use here as this is beyond the scope of the current project. But first, what is a virtue?

4.1 What Are Virtues?

Virtues or excellences are those qualities and traits that allow us to flourish; they are faculties that allow us to reliably achieve our goals and the achievement of these goals, assuming their aims are proper, is one construal of human flourishing; a person who reliably achieves her goals in life is one who can be said to flourish, again, assuming those aims are proper. In life we have

multiple social roles and virtues are those traits that help us to reliably do good and avoid bad within those roles, many of which are social in nature.²⁴

Any adequate account of what the virtues are must also consider the social structure that surrounds us all. Roles are defined, in part by our social structure so understanding this structure is essential to understanding how we should act within it and what roles best fit our personal desires and talents.

Virtues are the qualities which help to sustain our authenticity in the multiple roles we adopt in our social lives as well. They do so by forcing us to consider all of our goals and not just the goals of the particular practice we find ourselves in. Being the best Justin I can be is going to look different from Walter being the best Walter he can be though we share the same way of becoming the best: we do so through the virtues. Virtues manifest themselves in our actions which our particular roles and contexts ask of us. But maybe a clear definition of the virtues will help further our current understanding. According to Aristotle: Virtue- is (a) a state that decides, (b) consisting in a mean between extreme choices or vices, (c) the mean relative to us, (d) which is defined by reference to reason, (e) i.e, to the reason by reference to which the intelligent person would

²⁴ Much of my discussion of virtue is rehashed from (Caouette 2011). The wording is different for the most part but much of the background I give here has been given there as well, even in different form (Caouette 2011).

define it. It is a mean between two vices, one of excess and one of deficiency. (*NE* 1107a-0-5)²⁵

Contemporary virtue ethicist, Rosalind Hursthouse, summarizes the above definition well, she states; “A virtue is a character trait that a human being needs for eudaimonia” (1999). One may argue against this particular understanding of virtue but for our purposes here I will stipulate this as a starting place rather than argue for it. My discussion of virtue and any compatible virtue ethical theory that flows from this is aimed at offering some background for accepting the notion of achievement I will argue for in the pages that follow. Therefore, if we take the above definitions of virtue as a starting point we can see that virtue ethics, understood broadly as any ethical view that grounds the right-making feature of an action in the virtues at play in a given context, as opposed to deontology or utilitarianism, is an approach that **focuses** on motives and moral character (virtue) and is concerned with living well in order to flourish²⁶.

Embodying and cultivating virtues is, at least partially, constitutive of flourishing. In other words, flourishing is defined in terms of cultivating,

²⁵ “*NE*” refers to Aristotle’s *Nicomachean Ethics*. I discuss this in more detail in my 2011 (MA Thesis)

²⁶ I have given a detailed account of what makes a right act right for a virtue ethicist (see Caouette 2011). Here is a summary: An action is right if and only if the motivations for the action are grounded in the virtues appropriate for that particular act, AND (2) - the action hits the targets of the operative virtues better than the other courses of action available to a particular agent given certain circumstances (ibid pp. 9)

embodying, and practicing the virtues. A person who embodies the virtue(s) at play when performing certain actions that are consistent with a picture of human flourishing can be considered to be living a virtuous life, or, a flourishing life; this conception is influenced by both Aristotle and MacIntyre²⁷. Another important aspect of our being that is important to consider is spelled out nicely by MacIntyre (1999). He says:

“We human beings are vulnerable to many kinds of affliction and most of us are at some time afflicted by serious ills. How we cope is only in small part up to us. It is most often to others that we owe our survival, let alone our flourishing, as we encounter bodily illness and injury, inadequate nutrition, mental defect and disturbance, and human aggression and neglect. This dependence on particular others for protection and sustenance is most obvious in early childhood and in old age. But between these first and last stages our lives are characteristically marked by longer or short periods of injury, illness or other disablement and some among us are disabled for their entire lives. These two related sets of fact, those concerning our vulnerabilities and afflictions and those concerning

²⁷ I have argued for a specific account of right action within a virtue ethical framework but those details will derail the current conversation as I am trying to connect achievement to virtue frameworks more generally. I prefer to stay somewhat agnostic on the exact account of virtue or virtue ethical account that I find most plausible as I hope any of these accounts will see achievements as central to a well-lived life. In fact, I think virtue consequentialist theories could adopt what I have to say about achievements as well. I am simply providing – a framework – or, a group of frameworks that would seem to take meaningful achievements seriously when evaluating certain actions and outcomes.

the extent of our dependence on particular others are so evidently of singular importance that it might seem that no account of the human condition whose authors hoped to achieve credibility could avoid giving them a central place. Yet the history of Western moral philosophy suggests otherwise. From Plato to Moore and since there are usually, with some rare exceptions, only passing references to human vulnerability and affliction and to the connections between them and our dependence on others." (1999, p1). This interdependence is important because acknowledging this, and centering our ethical views, in part, on this fact, should lead us to recognize why some may elect to enhance and other may not. But these facts do not tell us much about how to navigate the moral terrain; what it does do however is to lend support that a virtue view is at least a reasonable view considering the assumptions I have started with here.

Which virtue is at play at a given time will depend on the context. Given this fact, a virtue is best understood as context-dependent. What matters in a given context will be answers to questions like: Why we are doing what we are doing? Is this particular time the right time to do it given considerations about the practice we are engaged in and our reasons for engaging in the practice? To understand how the context affects which virtue is at play consider two basic contexts. One is considering what to do with the left-over money from their pay

check. After paying their bills and saving a sufficient amount this individual is considering what to do with what is left. Should they give some of their earnings to someone else who may need them? If so, how much should one give? The virtue at play in this context (and similar contexts) where one is deciding if they should give a small amount money away, how much money to give if they have decided that they should, and whom they should give it to is the virtue of generosity, and not a virtue like modesty. A generous person is best described as a person who knows when to give money, how much money to give, to whom the money should go, and how to feel about giving the money. Likewise, an honest person is a person who knows when to tell the truth, the honest person is not one who merely tells the truth to whomever may ask. The honest person tells the truth to the right people at the right times and for the right reasons. The honest person may very well lie sometimes in order to save one's life for instance. So, honestly is about disseminating information to the right people at the right times. Most virtuous dispositions have corresponding vices of excess or deficiency. A person who gives too little may be called stingy. Likewise, a person who gives so much that they now cannot pay their bills the following week may be called extravagant. But giving the right amount at the right time to the right person is not enough for the person to be virtuous. The person should also feel the right way about giving the right amount. They shouldn't do so because they

want to prevent feeling bad, nor should they do so because doing so will make them feel superior to their neighbour. Thus, in every instance of virtuous action, how the person feels (emotionally) will also be part of the evaluation on if the person acted properly. I will return to this point in the next chapter in my discussion of cognitive and moral enhancement.

Now that I have very briefly explained what virtues are, let me mention a few further points before explaining how virtues fit into a flourishing life and how they connect to human excellence. Recall, my purpose in explaining the virtues and how they work is to set the groundwork to motivate what I have to say about human achievement. Human achievement, understood under the guise of human excellence, will serve as a central feature in motivating the goal-centered account I'll put on offer later in this chapter to evaluate the use of human enhancement technology.

There are many virtues and what their corresponding excess and deficiency might be is up for debate. Though Aristotle himself only mentioned a set of 12 he admits that there are more virtues than there are words than can describe them. Most virtue theorists admit of many and would be open to endorse a similar claim than the one endorsed by Aristotle. Further, what the mean will be will vary depending on the talents and life goals an individual has. So, the amount of money to give will change according to how much one has.

How patient one should be will, for instance, in part be determined by the career they choose. It may require much more patience for a professor to deal with pesky graduate students who do not meet deadlines than it would for someone to work as a writer that may have far fewer deadlines. My point in mentioning this is that the mean for any one person will depend on the context and that context will depend on a number of considerations. What other people are around, what goals are connected to the practice in question, and what other goals an individual may have in their lives. The professor who deals with pesky graduate students may also, besides having the goal to be the best adviser they can be, have the goal of having children in the future. They may also be someone who is often relied upon to diffuse personal matters in their department in the role of department arbitrator. These further goals coupled with the current context should be considered when considering how patient one should be disposed to be.

4.2 Human Flourishing, Human Excellence, and Human Nature

Given that we are looking for a way to evaluate human decisions, specifically the human decision to enhance oneself in a given context, then discussing what it means to be human seems like the proper starting place. I will assume that humans share at least 3 distinctive aspects with other human beings:

that we are inherently social creatures, that we share a biological nature, and that we share an emotional nature. Throughout the discussion of these basic assumptions I will point to the role that the virtues play culminating in a straight-forward view on human excellence. I will now discuss each assumption about our nature in turn.

4.3 Humans as Social Beings

First, we are all social beings. As Alasdair MacIntyre succinctly stated the point “we find ourselves placed at some particular point within a network of relationships of giving and receiving in which, generally and characteristically, what and how far we are able to give depends in part on what and how far we received” (pg 99, 1999). We are born into a specific social structure. Thus we must be social in one way or other in order to communicate our needs to others and in order to provide for those who need us. Without the help of others we would not be able to survive. Once we acknowledge our interdependence on others it becomes clear that exhibiting certain dispositions allows us to flourish alongside them. Following MacIntyre let us call these virtues of acknowledged dependence. How can a human being flourish given their starting place? What it is for a human to flourish varies from context to context but in any given context it is for that person to exercise their capacity to act virtuously and what it means

to act virtuously in any given context will depend on what virtue is at stake within that context.

Following Aristotle, and MacIntyre after him, to best understand what it means to act virtuously is to understand what the virtues themselves are and what it means to live a life that the exercise of virtue requires. But for our purposes here I need not give my own account, or rehash someone else's in detail. After all, the goal here is simply to motivate why I believe a virtue account is suited for moral evaluation and how the concept of achievement fits into that framework. The details of the virtue account will only serve to direct us away from my central inquiry. But I do believe some insight from MacIntyre will help us to understand human excellence.

Roughly put, human excellence is doing the best that we can to accomplish our goals. The "best" here refers to utilizing our human capacities in a virtuous way. And the "best" way forward given our social nature is a way that takes our social context and social behavior into account which means that we must consider how our actions effect others and how those actions will affect our relationships with our fellow humans. It's important to note that each of us, although human, have different capacities, different amounts of resources, and confront different circumstances in our lives. As MacIntyre noted:

“What resources an individual needs varies with circumstances, temperament, and above all the obstacles and difficulties that have to be confronted” (Mac pg 73, 1999)...“At any particular time I have some range of projects, of goals, of desires. So, when I propose myself to act on a particular desire, I have to ask “Is it time and in these circumstances best to act so as to satisfy this particular desire?. And, if I do act on a particular desire I then make or presuppose a judgment that it is best for me here and now to satisfy this particular desire.” (pg 69, 1999). Because of this, the question ‘Why should I do this rather than that?’ “...becomes from an early age inescapable and its characteristic of human beings, that their replies to this question can themselves always be put in question, and that, when those replies are put to question, that further question can only be answered, rather than avoided or ignored, by reflecting upon and evaluating the practical reasoning that issued in or was presupposed by their actions” (pg 67 1999).

Because of this social nature, and given that our goals are always set within the context of established practices, it follows that our social relationships are indispensable to our flourishing. And what we need from our social relationships is comfort, love, and mutual respect. These features that come from our social interactions.

Anything flourishes in virtue of possessing some relevant set of natural characteristics. As humans we require a general skill set to flourish, our ability to communicate with others and with ourselves is one key skill. As inherently social beings, beings born into a specific social context with specific norms and practices, we share a common goal: to live well in the time and place we find ourselves in. And assuming that each of these contexts are inherently social in nature, in that we must communicate within that society well in order to live well, then it follows that we must excel at communicating in order to flourish. We communicate through spoken and written words, we communicate through sight and through sound, we even communicate through touch and emotion. Thus, any change to the structure that gives rise to these sensations will also give rise to changing the way that they function. When changes give rise to better communication, then we can be said to be enhanced. When changes make us worse off we then try and learn from our mistaken change in approach to accomplishing the goal at hand.

4.4 Humans and Our Embodied Nature

Another aspect of our shared nature is that of our biology. We are embodied creatures and having our bodies as healthy as possible is necessary to flourish. An excellent human being will be a healthy human being. Thus, toxic

diseases, injuries, predators, and lack of a healthy diet threaten all of us. Preventing these from occurring then is of central importance to human flourishing but though we share common enemies such as viruses and cancer, our body chemistry is different and it follows that ingesting certain foods and not others might be good or necessary for me but not for you. Allergies and other issues all affect our biological selves and these all affect our ability to flourish and live well. There are of course individuals that want to be sick, that make decisions in order that they be sick instead of healthy. Such deviant individuals are possible, and indeed I have worked with and met some of these types of people throughout my life.²⁸ What is clear to me, and this speaks to some of the things I have said already, is that these individuals are not flourishing. They are not satisfied with their lives and this has led them to seek pain rather than avoid it. We still share with such people an embodied nature, or so I will assume moving forward.

4.5 Our Shared Emotional Nature

Aristotle claimed that we are inherently social animals. We also share a biological nature that consists of a range of emotional responses. Given that it

²⁸ Having worked at a residential group home program in Massachusetts for some years I worked with many individuals who were suicidal, would often engage in severe self-harm, and would actively try to deviate from the ideals that I have mentioned here.

sounds a bit off to consider emotions under the guise of biology, let us then consider it as a third part of our nature. As Justin Oakley nicely points out, “whether and how emotions are to be morally significant depends on one’s account of the nature of emotions and the nature of morality” (Oakley 1992, pp 39-40). Here, I am claiming that we all have basically the same emotional needs, we all need some love and need to love others in order to flourish. The best versions of us, whoever we are, have some emotional needs and these needs will of course vary from person to person.

4.6 On Virtue and Enhancement.

The purpose of an ethical theory is to guide us in deciding how to live one’s life and to help us navigate specific decisions within one’s life. At any particular time we have the opportunity to pursue multiple ends, and for any given end we can accomplish it via a different path. For instance saving enough money for retirement seems like an end one could have, and there seem to be many ways to do this. I could rob the money and have a decent retirement in that way or I may save my money gradually by portioning a percentage of my earnings over a long period of time.

There are many different kinds of decisions involved in our lives.

Generally, we must decide what to eat, whom to spend our time with, where to

spend this time, and, what activities we will spend our time on. Additionally, we decide on what goals we will pursue. We have the ability to learn from the decisions we make and the practices we choose to spend time enjoying. We learn how to spend our time in ways that make accomplishing the goals we set out for ourselves more attainable. Through the experience of trying new ways of living as well as watching those we find ourselves with and stories we here about others, we make decisions as to what the best course of action will be for us to accomplish our goals. Those of us who wish to live the best lives for us share one common goal, to live well, or put differently, to flourish. Thus, it seems appropriate for us to approach the more specific questions about what we ought to do at a given time similarly by asking how one course of action is more fitting than another to accomplish the goal before us. These specific goals are often tied to larger goals we have for our lives. And these latter goals should shape how we plan to achieve the more immediate goals before us. Another major reason for selecting a virtue account is that I take a virtue account to be both self-directing and other-directing. It's self-directing in that it's focused on one's talents and aims, and it's other directing because there is a huge social component and wending our way successfully through those social interactions requires that we care for the other deeply enough to understand where they are coming from as well. These key features are important in the context of deciding on a number of

enhancements because there are affects that will occur from enhancing that will affect the person enhanced, their competitors, and those who have relationships with the enhanced.

But there is one concept that is central to living a flourishing life, that concept is human achievement. A life filled with valuable achievements is better than one without them and, given the goal-centered approach I will be offering the concept will also be essential to evaluating the permissibility of the use of human enhancement technology. Let us now make this the focus of our discussion.

4.7 On the Concept of 'Achievement'

There are many ways to understand what achievements are and why they are important. Many philosophers have appealed to achievements to help explain accounts of well-being (Raz 1986), accounts of perfectionism (Parfit 1984; Hurka 1993; Sher 1997), and as Gwen Bradford has pointed out (2015) “it (achievements) has led many philosophers to opt out of the experience machine, and reject mental state theories of well-being” (see Nozick 1974). Bernard Williams has appealed to what he calls “ground projects” that often sound a lot like achievements (1981). These ground projects play an integral role for Williams in giving our life meaning and understanding human agency. While

these philosophers have appealed to achievements in a broad sense to do some philosophical work for their theories, it is only recently that the value and nature of achievements has taken center stage (Keller 2004; Bradford 2013; 2014; 2015a; 2015b). So what is an achievement? And what role does it play in a good life?

First, it's best to understand a range of achievements. Some definitions of achievement make it such that combing one's hair is an achievement. Although it may be the case that this is a capital-A achievement for some, these broader notions make it an achievement for anyone. On this understanding, to accomplish a goal, any goal, is to achieve a goal (Raz 1986). These are not the sorts of achievements (if they are) that I had in mind to do the work to help us morally evaluate cases of human enhancement. I am concerned with the sort of achievements that bring meaning to our lives, that are constitutive of human flourishing. Rather than get bogged down early in this discussion by arguing against Raz's definition, I prefer to follow Gwen Bradford (2015a) with some preliminary observations about the structure of all achievements, and not just capital-A achievements which will be the central subset of achievements that will do the work for the account of evaluating enhancement I will endorse.

Bradford says: "Achievements, it seems, aren't the sort of thing that just pop into existence, *ex nihilo*. Rather, they are the result of some process. So it seems achievements have this particular structure: there is a process and a

product, we might say. The process culminates in a product. In some cases, such as building a house or publishing a novel, the product is something that is separate and distinct from the process, while in other cases, such as dance performances, the process and the product need to be related in a certain way in order to count as an achievement: the process culminates in the product, whether this culmination be the execution of the process itself, or something distinct from the process". (ibid pg 11) So, achievements are composed of a process and a product. But not just any process-product combination is an achievement. This dual structure is common to all achievements and many things we don't consider achievements. Every completed task takes this structure as well. Thus we are tasked with two brief projects. We must explain the difference between achievements from merely completed tasks on the one hand. And, because all achievements take this structure, and not just the achievements I am planning to utilize to help us navigate the evaluation of human enhancement, capital-A achievements, we must find a way to delineate between capital-A achievements and hollow achievements. To do this, it might be best to begin with a quick example.

Consider Benji, my 5 year old son who just learned how to read last week and who just finished reading his first book aloud. Why does (and should) this

count as an achievement for him and not for me, someone who has been reading for over 30 years?

Following Simon Keller (2004) and Bradford (2015a) it appears that difficulty is doing the work in this case (Bradford uses a case of brushing one's teeth to show the point). Difficulty, they claim, is a necessary condition for a process-product combination to be an achievement as opposed to some merely completed task²⁹. Now, both Keller and Bradford take different lines here as to the role that difficulty plays in distinguishing achievements from non-achievements. Keller claims that what it means to be an achievement for someone is just to say that that person contributed to the process I alluded to earlier through one's own effort. To overcome some difficulty and to apply one's own effort to do so is to achieve something according to Keller. Bradford, however, disagrees. For Bradford there is more to be said. Bradford claims that though difficulty is necessary for all achievements, both capital-A achievements and hollow achievements, difficulty alone is not sufficient to be an achievement. To show this she asks us to consider an example, she calls it Buried Treasure.

Buried Treasure. Lucky Lon comes to believe that there is treasure buried somewhere in the area, and embarks on a vigorous but hare-brained research plan involving magic-8 balls, Ouija boards, séances, and dowsing wands.

²⁹ I'll go on to claim that enhancements are prima facie morally problematic when they vitiate a would-be achievement.

Suppose that Lon's research program is, in spite of its questionable reliability, quite difficult for Lon to carry out and requires a great deal of effort. He eventually settles on what he believes is the precise location of the treasure, digs for days, and lo and behold! There just happens to be treasure buried in this exact spot.

This example is supposed to show us that an activity can be difficult, but not be an achievement. This isn't to say that all success that isn't an achievement is itself morally problematic per se, only that not completion of. Importantly, her example also links the previous discussion about a product culminating from some process as well. So it fits the structure of an achievement and meets the difficulty condition. For Bradford this suggests that more is needed to account for what an achievement is and how to distinguish capital-A achievements from hollow achievements. Bradford concludes "So just difficulty and causation are not jointly sufficient for achievements. Rather, we need the process to cause the product in a certain way – in a non-accidental way." (ibid pg. 15) Bradford is suggesting here what she calls a competency condition. An achievement then for Bradford has two necessary conditions. She says, "difficulty is a feature of the activity itself, and competent causation is a relation between the activity and the product that it causes. These two components, I have argued, are necessary for achievements." (ibid pg. 20). But here I'd like to press a bit on Bradford's

account. She herself considers a value condition but rejects it as being “too moralistic”. I am not convinced that this charge holds. On her account, the Holocaust as well as any intricate planning and successful follow through of any vicious activity, would be an achievement, albeit an evil one. Her account is successful in detailing the structure of achievement, and spelling out the difficulty and competent causation requirements for an activity to be an achievement. But rather than consider the Holocaust and other forms of heinous activity to be achievements it seems we should further consider the value component, especially given my purpose in trying to understand and utilize the concept of achievement to help us morally evaluate a subset of human action, action that is accompanied by the use of a given pharmacological enhancement to accomplish a goal.

Rather than just be minimal with our definition and consider some achievements to be evil and some to be moral, it might be better to build in to our definition of an achievement a moral condition such that we save our use of the term for those special cases. Thus, rather than understand all accomplished goals that share a certain relation and amount of effort as achievements, I suggest that we can do more conceptual analysis to help us separate the terms. Done in this way, we may still have capital-A achievements and hollow achievements, but hollow achievements will lack some component of capital-A achievements but

will be different from mere accomplishments of some goal. So I will pursue this separation of terms as follows³⁰. I will complete the task of considering a value condition on our definition of all achievements and I will motivate this task by discussing two kinds of processes. One process is linked to achievements while the other is linked to a mere completion of a task. Keep in mind that we are defining what an achievement is at this point and not weighing in (yet) on what makes an achievement more or less meaningful to one's life. This second activity will be taken up after we get clear on our settled definition.

Before moving to considering the value condition on achievements, let's first recap. In agreement with Gwen Bradford's view on defining achievements, I have suggested that achievements share a common structure. There must be a process and a product. The process culminates in a product. Whether the process is distinct from the product or not, the process and product must be related in a certain way in order to count as an achievement. To succinctly state the view on offer so far, and so far I am in complete agreement with what Bradford has put forth; a product must be competently caused by a difficult process in order for it to be considered an achievement. As I have suggested, this bare bones account would deem heinous acts like the Holocaust 'achievements'. I find this counterintuitive and will now try to consider a moral condition to account for

³⁰ Ultimately I will argue that aiming at hollow achievements are impermissible.

this unease. Rather than just appeal to my unease to motivate the moral condition I will try and say a bit more about what I take to be a difference between completing a task and achieving a goal.

It's important to remember why Bradford found Joseph Raz's account wanting. She says "Raz's account is unhelpful as far as the nature of achievements goes. Raz's notion of achievement concerns achievements in the broad sense, so that even the most trivial undertaking can constitute an achieved goal, such as successfully brushing one's teeth. Moreover, he does not provide a thorough account of just what an achievement is, apart from having a goal and reaching it; nor does he dig particularly deeply into what it is to reach a goal." (ibid pg. 8). She goes further with her criticism by saying "Moreover, Raz's view generates what I take to be a seriously counterintuitive answer to key cases" (ibid). Though these words seem harsh, Bradford does see value in Raz's work, but that value is had in understanding the value of attaining goals and which goals are valuable to attain and she admits that his work sheds light on which goals are worthwhile to pursue. I find her criticism to hit the mark, but I have similar concerns with what she has offered us herself.

I find her view to result in counterintuitive answers to a number of cases as well, and similarly leaves us wanting the very charge she levied against Raz. This suggests that more is needed in our analysis. Though I agree with her that

Raz's account makes the completion of mundane activities achievements, I disagree that her account gets us to where we want to be. There seems to be a difference between the types of achievements (some are meaningful and others are hollow) and Bradford's account treats them the same. Meaningful achievements are those that in accomplishing them exemplify human excellence. Hollow achievements are those that indicate a completion of a task and even that that task could be meaningful to the agent. Separating these sorts of achievements is important for my current purposes given that our evaluations seem to change regarding any given achievement once we learn how that achievement came into being. Let us now consider a further condition to remedy the situation.

In considering and rejecting a value condition Bradford focuses on the product of an achievement. She discusses practical jokes and witty insults to motivate her conclusion that a value condition runs the risk of excluding what she calls "petty evil achievements". Though I am not moved at all by this concern let us set this aside for a moment. Given that Bradford herself criticized Raz for counting mundane tasks as achievements let's start there. Why aren't mundane completions of our goals achievements? My first inclination is to appeal to the lack of meaning that mundane completions of tasks have for our lives and not difficulty per se, though I think difficulty is part of the story.

Let us agree that a mere completion of a task is not an achievement even though all completed tasks share the same basic structure. Thus, we can think of the basic structure we have on offer as a structure for goal-orientated action, rather than a basic structure for achievement. Some goal-orientated tasks are more difficult than others. But not every difficult completed task seems to be an achievement. We reserve the term achievement, in most cases and especially for the cases I care about in the context of the human enhancement debate, for tasks completed that are connected to our sense of self. We also reserve the term achievement for goals that tend to take a special kind of difficulty, perseverance. Thus, I'd like to distinguish between two ways of accomplishing our goals. One way is to achieve something while the other is to merely complete a task. Consider the case of Bobby.

Bobby. Bobby has a goal to complete her degree to secure employment for a job that she recognizes as one that promotes the growth of her talents. University is hard work and she tries her best to get the best grades she can to secure the job. She successful gets her degree and secures employment.

In this case it seems clear that Bobby has achieved something: her degree. This degree is an achievement, not because the product is necessarily special. It may be the case that the field she got the degree in loses funding and she does not secure a job. This doesn't affect our evaluation that Bobby achieved her

degree. It's an achievement because of what it could mean for Bobby and because it was difficult and required sustained focus. Even though it was difficult, she persevered. To persevere virtuously is to do so for the right reasons at the right times, and for the right amount of time. One reason to persevere is because the process you are persevering through is worthwhile to the larger goals you have in your life. The driving force, the goal in getting this particular degree, is connected to who Bobby is and what she wants to do with her life. I argue that these reasons combined are what makes the evaluation of this particular goal-orientated action an achievement and not merely the completion of some task. Notice that in this evaluation I have appealed to a value condition. Unlike Bradford though who focused on the product of the achievement when she considered the value condition, I turned to the *motivation* and the *process* of an achievement to do the work. We could further add that for the goal to be worthwhile and meaningful, and, for the completion of it to be constitutive to a flourishing life, it must not impinge on the ability of others to identify with the world as they see fit (with exceptions for reasonable concerns) We now have a value condition built in and have a clear-cut way to distinguish between achievements on the one hand and merely completing a task on another. Again, this is not to say that all achievements are on par. Only that my definition, contra Keller or Bradford, distinguishes between the mere completion of a task

(whether it be difficult or not) from an achievement. Meaningful achievements are connected to one's narrative in a special way and they come about as products of activities that are engaged in that are meant to exhibit human excellence. This is so because the goal and the process involved in achieving something meaningful can add to one's life in a way that a mere completion of a task does not. To see it play out consider another case, Bobby 2.

Bobby 2. Bobby has the goal of killing as many people that she can. This is difficult because to accomplish this goal, of maximal killings, she must evade police and plan her actions meticulously. She succeeds and kills 87 people throughout her life.

In this case, Bobby has achieved her goal of killing as many people as she could. This is her life's achievement, the pearl of her existence. But why consider it an achievement at all? Although it has required lots of effort and met Bradford's causal condition it seems like a completed task for sure, but not something that deserves the recognition that we often associate with achievements. Bradford wanted to keep the mundane completion of tasks out of her definition because they seemed different in kind. This was due to the way we seem to put achievements on a pedestal and champion them in our lives while celebrating their special kind of success in the lives of others. Likewise, it seems that we save our use of 'achievement' to not only separate them from the

completion mundane completions of tasks, but also from the completion of goals that are clearly morally abhorrent. To say of Hitler that he 'achieved' so much; that his life was full of 'achievements' is to miss the point of what is special, at least in part, with achievements. Let's recap one last time to see where this leaves us before connecting this discussion to human enhancement.

In agreement with Bradford, I have argued that all achievements share a common structure. This structure is that of process and product. An achievement is the product of difficult process where the product and process is related by competently striving toward the product through a difficult process. But, I argued, as Bradford did against Raz, that her definition seems to count too many completed tasks as achievements. The cases of concern for me were those like the Holocaust and Bobby 2, where both events meet Bradford's conditions but don't seem like the sorts of cases where we would utilize the term achievement to signify them. Thus, I proposed that we build in a value condition, a condition that Bradford herself considers and rejects on grounds that it would be overly moralistic. This value condition seems to get the cases right. The value condition constrains what can count as an achievement by focusing on the goal of the activity and the process itself, rather than focus on the product of the activity as Bradford suggested. Having the goal itself be connected to one's identity, with minimal restrictions on how one chooses to identify as long as the activity they

engage in is connected to their flourishing was the value condition I suggested. Now that we have a way of defining achievements, a way that circumvents the concerns I raised for Bradford's view, mainly that her definition allowed for heinous acts to be considered achievements, we may now move a view on the value of achievements. I will now offer a way of comparing achievements. So, what makes one a capital-A achievement, the one that I suggest is connected to human enhancement? I've been eluding to this in passing thus far in the discussion but let me now try to be more direct.

4.8 The Value of an Achievement

Like our discussion in the last section, I will begin with Bradford's view. The essential value of an achievement for Bradford tracks the achievement's essential features, all else being equal (2015a 170). The more difficult the achievement is the more valuable it is for the agent who did the achieving. The value of the process or product can have an affect (both diminishing or augmenting) on how valuable the achievement is. Bradford endorses "perfectionism", the view that what makes something valuable is the connection that the object of value has with some special human features (Bradford 2013). What is valuable for Bradford is the excellent exercise of her perfectionist capacities. Developing these capacities to their "most excellent degree possible"

(Bradford 2015 pg 115) is what the perfectionist values. These capacities are unique to human beings, in fact they are essential to human beings, and they ground the ethical views that perfectionists endorse (see Hurka 1993; Dorsey 2010). Bradford gives us an epistemic guide for delineating these human capacities, they must be (1) characteristic of human beings, and (2) worth developing. She says “if a capacity has both parts of these criteria, this is sufficient for its inclusion in the presumptive account of perfectionist capacities” (Bradford 2015a 116). It’s important to note here that her essentialism about these capacities is evaluative and not metaphysical. She claims that given that any metaphysical approach to identify these capacities has fallen short, she sees the epistemic approach to be the most fruitful. She refers to these perfectionist capacities as “fundamental to human beings”, and, borrowing from George Sher’s account (Sher 1997), she dubs these “near-universal” or “near inevitable” and is open to what she calls “metaphysical surprises” but doubts that such surprises couldn’t fit into the existing list. Note, these capacities should be intuitively good to develop. But what are these capacities for the perfectionist?

The first is our rational capacity. Following Aristotle, who saw us as essentially rational animals, Bradford takes rationality to meet the first criterion given that it is considered a near-universal trait that we all share and that it is nearly inevitable that we must use our rationality in nearly everything we do. It

also seems uncontroversial that it is good to develop our rationality, which meets a necessary condition for a perfectionist capacity. Bradford identifies two more general capacities, our physical capacity and the capacity to exercise our will. This latter capacity is one that is not endorsed by traditional accounts of perfectionism but one that Nietzsche seems to have endorsed (Hurka 2007;). Bradford's perfectionism is the perfect starting place for our discussion of the value of an achievement. The motivation for this account is the same for the account I would like to endorse. It's centered on human excellence, which understood broadly comes about through the use of our human capacities. Whether or not the theory I will endorse is perfectionist or not is neither here nor there. The point here is to contrast what we've heard thus far from Bradford's view with considerations I'd like to incorporate before detailing how it is that such considerations can assist us in properly evaluating the use of a given pharmacological enhancement.

Like Bradford, I'd like to endorse a view of value that is derived from our human capacities. A basic human value is one that allows us, as humans, to flourish. As mentioned earlier, virtues are the traits and dispositions that allow us to flourish. To live well is to exhibit human excellence. But not some general account of human excellence: excellence understood as living well and being the best version of oneself. Thus, values will be more relative than the perfectionist

account put forward by Bradford. Excellence exhibited by me and by my friend Samir will look differently on this account and I see this as a strength of my view over the perfectionist accounts: it allows us to appreciate and value the lives of other humans who may not exhibit or share a particular human capacity, or who may not have a goal to develop such a capacity because to have such a capacity might be alien to how they identify with the world. Further, there is no pressure to change others to meet our human ideal on my view. The appeal to human excellence is generic to help us properly evaluate a given goal. The capacities that each individual comes to the table with and identify with are those which are to be valued. So, goals that are directed at developing a part of ourselves we currently have, or would like to have are worthwhile as long as such goals exhibit excellence. Also, goals that are directed at changing ourselves in the right way and for the right reasons are also worthwhile. So, what does this all mean for the value of an achievement?

On the view I am endorsing, what is most valuable is that which exhibits human excellence. Human excellence, generally, is exhibited through our virtuous actions. Such actions are physical in nature and are always goal-orientated. We should feel the right emotions when acting, and as such human excellence will have an emotional component. Human excellence will always be exhibited within a social structure and through engagement with and during

social practices. And these practices themselves have goods internal to them and the attainment of these goods can be understood as meaningful achievements that help to bring meaning to our lives. Thus, the account of value I am endorsing is a virtue account centered on human excellence. But it's important to note here that we are all very different humans. We all have different human capacities and we all have different talents and desires. To acknowledge these differences in humans I suggest we ought to reject general non-relative accounts of value such as perfectionism. On this account, what makes an achievement valuable is that it exhibits, or minimally, aims at developing our human capacities. These capacities are similar to perfectionist ones though what makes the capacity excellent for the account on offer is that it connects to who I am as Justin, not just the human being but the subset of human capacities that I identify with beyond some general capacity. As such, this connects to what I said about achievements more generally. Recall that I defined achievements in the last section by appealing to a value condition. This condition states that difficulty in the process of producing a product must be taken on for the right reasons. What makes a reason right is connected to the virtue at play within the context of the activity

4.9 Enhancement and Achievement

So, what does all of this mean for the human enhancement debate? Here I will argue that when our evaluation of an achievement changes because of the use of a human enhancement technology from meaningful to less meaningful or hollow, or from an achievement to a mere finished task, the enhancement is impermissible, morally speaking. This is so because morality is present to guide our behaviour toward human excellence. My suggestion is that we should look to the process and the goal of a possible achievement to evaluate human enhancement. This goes for permissible and obligatory human enhancement as well. Though I'll speak to the latter evaluation in detail in the next chapter I'd like to say a few preliminary remarks now about both. But before delving into them, maybe an example would help in the case of an impermissible enhancement.

Consider the case of Yoshiki. Yoshiki was due to pass in his dissertation on May 1st. Unbeknownst to anyone who knew him he hadn't spent any time writing his dissertation. Two nights before handing it in he underwent a neural procedure that downloaded all of the literature related to his thesis into his brain (the document at this stage only had his name and title on it). Later that same evening he took an imaginary pill (here I am thinking of something like the pill in the movie *Limitless*) that allowed him access the downloaded literature and

also gave him the ability to type 700x faster and to do philosophy at a rate never before seen. On May 1st, after two days of writing he handed in his dissertation. The dissertation was met with much praise from his committee. Yoshiki passed his defense with no issues at all (during the defense he was also taking the pill to help him retrieve any information he may not recall from the procedure). In fact, Yoshiki took this pill and underwent this procedure for each of his exams as well. After getting his degree Yoshiki decided to blog about his experience. I believe that this is a clear case of where my view would deem this enhancement as impermissible. This is a case where the same achievement, getting his Ph.D., is changed from a meaningful one to a hollow one. The reason it has become a hollow achievement is because the goods that are internal to the process of getting his Ph.D. were vitiated via the pill and the procedure. One of the reasons we find getting the Ph.D. meaningful is because of the effort and dedication it that it requires. There are certain internal goods that one reaps through this process. The process includes wrestling with different ways to state our claims, debating our views with others, trying out new ideas by giving talks and discussing ideas with our peers; the maturation that occurs as a researchers is part of why we find the process so rewarding. We exhibit human excellence in studying, reasoning about the material we learned, writing, rewriting, and in actively choosing to sacrifice our time to become experts on a particular subject.

Yoshiki did not exhibit this excellence, nor did he garner the internal goods that we find valuable in the process of getting the Ph.D. The pill prevented him from these opportunities and as such he ought not have taken it. Now, there may be overriding moral reasons to take the pill, but if one undergoes the Ph.D. process in order to garner the internal goods and not only the external goods that can be had by getting the Ph.D (such as an academic job, the initials one gets to put after their name, or the different grants one can apply to only after completing degree requirements), then one is doing themselves wrong in taking the pill.

Just like deciding to enhance can change our evaluation of an achievement³¹, either from valuable to hollow, or from achievement to a mere completed task, likewise, it can change our evaluation in the other direction. Consider the use of propanol to do better on a test. Assume Mark gets bad test anxiety and he learns that using propanol before the test can help him to get the requisite score. Further, let's assume that Mark has a degree in the field in which he is taking the test. In other words, Mark identifies as a forest ranger. He has succeeded in the skills of forest rangers. However, to enter the profession and

³¹ Another way to put this, in a lot of cases anyway, is that deciding to enhance can add a hollow achievement to what was already a meaningful achievement. In this way one could argue that an enhancement might still be permissible because it did not vitiate the meaningful achievement unless one argues further that adding hollow achievements is impermissible, which is not a line of argument I wish to pursue. Consider Barry Bonds: we might think that Bonds is a great home run hitter and him being such a hitter is an achievement (due to his effort and home garnering internal goods internal to home run hitting and the like) even after we find out (if we ever do) about his use of PEDs. But we might also think that breaking the all-time home run record is a hollow achievement for Bonds (for reasons I alluded to in Ch 2). Thus, in such cases he added a hollow achievement to what was already a meaningful achievement. I don't think that the mere addition of such a hollow achievement is wrong per se.

to get paid to be a forest ranger Mark must pass the test with good scores. But, due to his on and off bouts with test anxiety he fails the test and thus loses his chance to be a forest ranger. Given his knowledge of this drug and the minimum risks it presents for him particularly not only would it be permissible for Mark to enhance for the test, but, it may even be obligatory depending on his other goals.

Chapter 5 – Applying the Virtue Approach

When might one be obligated to enhance themselves to accomplish a goal?

In this chapter I canvass some scenarios in which an obligation to enhance seems reasonable. Given the context dependent nature of the framework I have presented there will be no rule, *per se*, to enhance in such contexts, generally speaking. The goal in this chapter is to discuss a range of cases where it may be morally wrong to decide *against* pharmacologically enhancing oneself. I will discuss cases that deal with providing a service to others within the medical field (neurosurgeons, doctors, and others), in transportation (pilots and truck drivers), and even within the criminal justice system, which I will discuss in detail in the last chapter. The purpose of discussing these different sorts of cases is to show how different practices, and the goals one has in participating in these practices, can give rise to different moral obligations to enhance oneself. I will focus on a few professions that seem fitting for the discussion: surgeons, pilots, and firefighters.

In the context of genetic enhancement John Harris has referred to the idea that human enhancement may be obligatory for parents to enhance their children (Harris 2007). Julian Savulescu has mentioned it in the context of public institutions (2008; 2014), but only Harris, and more recently Santoni de Sio,

Faulmuller, and Vincent (2014) have considered it in specific cases. It is with Harris that I will start the discussion before considering some of the helpful ways that Santoni de Sio et al. (ibid) have approached the topic.

According to Harris, as long as the risk is not too high, it may be the case that parents have a moral obligation to enhance their children by participating in scientific research. I believe that the introduction of children to the discussion will only muddy the waters for our present purposes. So I will leave aside the questions concerning these potential enhancements to children by parents by in utero and after birth³². But I'd like to explore other contexts that have yet to be handled in the literature, specifically with an eye to pharmacological enhancements.

There are numerous drugs that can cognitively aid even those that are not suffering from a cognitive deficiency. Recent studies have shown (Sugden et al. 2012; Battleday and Brem 2015; Meinzer et al. 2014) that both Methylphenidate and Modafinil can improve attention, wakefulness, learning and retention of memory, and concentration for people who do not suffer from cognitive deficits. This raises the question of whether or not these drugs should be used in certain

³² All I wish to say on this is that I believe the considerations regarding the unborn or in children are much different than those of autonomous adults wishing to enhance. Regarding children I am much more sympathetic to what Sandel (2007) has had to say.

contexts, particularly in the work place for people who have jobs that engage directly with the lives of others, e.g. surgeons, pilots, and bus drivers.

There are numerous jobs that deal with the public health and performing these jobs in an excellent fashion not only brings fulfillment to the one performing the work but also helps those positively affected by an excellent performance. Thus, the first jobs I'll like to explore are those in the health care industry. I will suggest that those engaged in such jobs have at least a prima facie obligation to pharmacologically enhance. One could suggest that this could generate an unfair expectation for them to work longer and produce more than others because of the drug. However, I would argue that if one is working too much then this is good reason NOT to enhance as overwork would not be conducive to a well-lived life.

This may seem radical to some, but after further reflection it shouldn't seem this way. Reflect on the fact that we already inhibit those in the aforementioned positions to consume drugs that would negatively affect their performance (cannabis and alcohol). I see my suggestion as similar to those constraints already in place. Just like restricting one's ability to consume cannabis or alcohol prior to work seems justified as allowing one to do so may put the patient at undue risk, likewise restricting ones ability to say no to an

enhancement that would be helpful on the job seems justified for the same reasons.

Following the ancient Greek physician Hippocrates, nearly all physicians, nurses, and surgeons take the Hippocratic oath upon graduating with their medical degree³³. This oath is often taken as a rite of passage more than a requirement to become a health care provider but it essentially captures an intuition many have about health care workers. The oath has to do with “doing the best by the patient” and has to do with not giving delicate information to others unless such information is needed to do the best by the patient. In other words, the point the oath seems to be making and the sentiment that many believe still exists regarding health care workers is that when taking such a position one must try their best to bring their patient to good health and secure trust with their patient by creating an environment where the information about a patient’s condition is kept private. Further, there is good historical evidence that suggests such enhancements may be pushed sooner rather than later making the ethical discussion even more important at this point. This historical point was made nicely by Santoni et. al, they write: “When, for instance, basic antiseptic procedures which are common today—e.g., cleansing hands with carbolic acid—were originally developed, their efficacy was not yet established, their risks for

³³ How we should interpret the oath in the current age is up for debate. See Jotterand (2005) for more on this.

the user were unknown, they were available only in select research laboratories and medical practitioners were not expected to deploy them. But today, now that the clinical value of these techniques is widely recognized, and they are relatively inexpensive, largely free of risk, and ubiquitously available (Gawande, 2012), medical practitioners cannot legitimately reject the request to employ these techniques. The discovery of the antiseptic efficacy of carbolic acid, as it were, brought with it the creation of a duty to use it." And, even though the analogy between cognitive enhancement and carbolic acid is far from perfect, there seems to be at least good reason to think that such a demand, on cognitive enhancement for surgeons, might be warranted given the goals of their profession and assuming that such enhancements were available and relatively safe.

Leaving aside the concerns associated with privacy I think it will start to become clear as to how the enhancement debate comes into play here. Consider the fatigued physician. After working many hours doctors, like the rest of us, suffer fatigue, however, unlike most of us when doctor's make a mistake it can have direct negative and harmful effects to their patients. A recent study in *Annals of Surgery* (Volume 255, Number 2, February 2012) by Colin Sugden et. al. tested the effects of a 200mg dose of Modafinil on sleep-deprived surgeons, and they concluded that "Our results suggest that fatigued doctors might benefit

from pharmacological enhancement in situations that require efficient information processing, flexible thinking, and decision making under time pressure.” (ibid) Thus, and assuming the surgeon is not overcome with side effects of Modafinil (some report head ache, low grade fever and other fairly mild effects) it seems that surgeons would be doing the best by their patients to take modafinil. [Again, doesn't this generate unfair expectations for them to work longer hours and produce better results?]

Now, one could respond that the surgeon shouldn't be sleep deprived in the first place. Although true, the fact remains that shift work for surgeons will almost always produce fatigue in doctors given that many rotate schedules and this leads to fatigue as they adjust to their new sleep schedule. But even if we found a way to have doctors at optimal sleep there is still good reason to believe that they'd do better under the influence of modafinil (see Lyon 2017).

Putting aside the appeal to the Hippocratic oath for just a moment, consider the goals that many surgeons already have: e.g. to do their job well, to heal patients, to get promoted, and to make the least amount of mistakes when doing paperwork and other tasks associated with securing patient confidentiality and good health. Given that modafinil has been shown to improve one's ability to accomplish these tasks better, it seems best for the doctors to take these meds. Given that the health of others is at stake, it would seem that most would also be

morally obligated to take such an enhancement as well (of course this will depend on which ethical theory you endorse. But any ethical view that doesn't obligate you to do your best would need to be discussed at this point. After all, if ethics isn't in the business of recommending the best course of actions for the agents that follow the prescribed view I am unsure as to what goal an ethical view could serve.

Another context where a pharmacological enhancement might be obligatory would be in the context of flying a plane. For similar reasons as mentioned previously with regards to surgeons, flying a plane puts the lives of others in the hands of the pilot. As with the study appealed to in the last discussion, numerous enhancements have been shown to have positive results for pilots (see Caldwell J, Caldwell J, Smith J, et al. Modafinil's effects on simulator performance and mood in pilots during 37 h without sleep. *Aviat Space Environ Med.*2004; 75: 777–784.). Likewise, there is also good reason to believe that these positive effects would persist even in perfect sleeping conditions. Also worth noting (and this holds for the case of doctors as well) we already restrict the use of drugs and alcohol on grounds that it reduces the doctors (and pilots) ability to do their job to the best of their ability. Thus, why not also encourage others to take enhancements when they have positive effects? We have no issues restricting liberty in one direction when there are clear

benefits for others, why not be consistent in the other direction? I've suggested that we should compare options at accomplishing our goals, in the case of a pilot one clear goal is arriving safely and without incident and to handle incidents as they arise in a manner that reduced harm to passengers. If there is a pharmacological enhancement available that (assuming risks involving harm to self are low or limited) then it would follow that we ought to take such enhancements.

Seeing enhancements as legitimate ways to better accomplish our goals and to exhibit human excellence allows for us to move past the initial reactions we are accustomed to having toward enhancements (a possible residue from the enhancement/therapy distinction as suggested in chapter 2) and toward a society that affords others more efficient ways at becoming their best. The suggestions I have made in the context of the health care industry and in aviation are the tip of the iceberg; consider a few different contexts.

Professors that could concentrate better on their lectures or scientists that could focus better on their experiments would seem to be prime candidates for utilizing pharmacological enhancements. Further, if research on enhancements being used in these contexts turned out to show that using these enhancements made them better candidates to accomplish the goals in their given contexts then it seems that saying they would be obligated to take such enhancements would

be appropriate. These are but a few examples as most jobs require the use of our cognitive apparatus to complete our job related tasks. Thus, it seems that any context would be one that we should consider enhancing and this even includes contexts where we are making moral decisions outside of the work place or sporting context.

Given that our lives are made up of decisions and goals that involve our careers and our friendships it seems that all of these contexts are ripe for an enhancement. One last context I'd like to consider is the exclusively moral context, though any context should be taken on as I have suggested. We seek to find what our specified goals are at a given time then we should consider the multiple ways we could approach accomplishing those goals. The context and the practice will help to constrain what options are viable or not . So, while a mechanical arm to pitch a baseball might not be a an option, taking a pill to maximize the talent we have developed over our lives with hard work and effort very well might be. Let us now consider "moral enhancement".

5.1 Further Applying the Virtue Approach: Moral Enhancement

Wouldn't it be grand if we could make ourselves and everyone around us morally better people? Just think, we could eradicate the Donald Trump's of the

world before they were able to harm people on a large scale. Though such a suggestion seems to be something from a sci-fi movie it has been the focus of much debate in the bioethics literature (Persson and Savulescu 2008; 2011; 2012; 2014; 2015; 2017; Harris 2007; 2013; Douglas 2008; 2016; Sparrow 2014; Jotterand 2014; Fenton 2010; Powell and Buchanon 2016; Archer 2016; Ahlskog 2017; Wiseman 2016; Carter and Gordon 2015). As John Harris has noted (2011), the possibility of moral enhancement is at the forefront of bioethics scholarship in large part because it combines cutting-edge science with one of the most traditional philosophical areas of discourse: ethics. My purpose of introducing moral enhancement into the discussion is two-fold: First, I would like to argue in the next chapter that we ought to enhance a subset of our criminal population. On my view, such an enhancement would be a moral enhancement. Thus, it will be important to lay the groundwork for that claim by briefly introducing the debates surrounding moral enhancement. And second, I would like to suggest that psychedelics are a good avenue to pursue further research along the moral enhancement lines; this under-explored pharmacological enhancement has shown some potential in treating depression and following Brian Earp (2018) I believe it has the potential to be utilized as a moral enhancement given the nature of the drug and the long-lasting transformative effects it has on the subjects who consume them.

Although there are a number of debates taking place surrounding the idea of moral enhancement (many of which I will allude to briefly in this chapter) it would first be good to get an idea of what is meant by the term moral enhancement and how these enhancements are supposed to work before considering the debates.

In his seminal piece on the topic, Tom Douglas (2008) has defined moral enhancement as “an enhancement that will expectably leave the enhanced person with morally better motives than she had previously”. Recognizing how difficult it might be to identify what good motives would look like let alone how we would go about enhancing them, Douglas opted to instead focus on counter-moral emotions that we could reduce to constitute a moral enhancement. The traits Douglas identified were (1) impulsivity toward violent and aggressive behaviour and (2) aversion toward certain racial groups (racism). As such if we were able to reduce the impulsivity or the aversion in question we could be said to have morally enhanced the individual. One response to Douglas, by John Harris, pointed to two substantive issues with such an approach. First, regarding aversion, Harris pointed to the fact that such aversions were not “brut”. When one has an aversion to someone who has a different sexual orientation or a different racial group, the reaction is not like the reaction one would have to a cat, dog, or spider, assuming we had a fear of them. Instead, according to Harris

(ibid), such aversions were based on false beliefs about the groups one has an aversion to; for Harris, prejudices are beliefs that have cognitive content beliefs with cognitive content. Thus, if we target ones emotions it is tough to see how this will lead to a change in belief. So even if we recognize that we may be able to reach a point where we may be able to enhance ourselves it's not clear how practical such an approach would be, according to Harris. The second issue Harris raised against the possibility of morally enhancing in the way Douglas suggested is the negative repercussions that could occur for the agent being enhanced. Appealing to concerns raised by Peter Strawson in his classic essay "Freedom and Resentment" (1960), Harris rightly asked how the "reduction in the degree to which the emotion was experienced could rightly be targeted only on strong aversions to things it is bad to have strong aversions to and not things to which strong aversions are constitutive of sound morality" (ibid 105).

Strawson wasn't writing about moral enhancement but he was writing about the role determinism could play in causing us to take an objective attitude toward other people. Such an attitude would have negative effects on our interpersonal relationships. Borrowing from Strawson, Harris rightly pointed out that certain strong emotions, including aversions more generally, were valuable in navigating these interpersonal relationships. These emotions are valuable because they help us to have aversions to people who harm others and who may

be toxic to our own well-being (for more recent work on this see Cherry 2017; Cogley 2013; Kane 1997). So, even if we grant that Douglas is right to target the problematic emotions that lead some to act immorally, it would be too quick to assume that the net result from targeting these emotions by pharmacological (or other) means would result in a more moral individual. Recognizing the force of Harris' criticisms other approaches to moral enhancement have been considered.

Another approach that one could take to moral enhancement would be to enhance individuals' dispositions toward altruistic responses and sense of justice as fairness (Carter and Gordon 2015).³⁴ Moral enhancement understood in this way would look a lot like cognitive enhancement. In fact, that's exactly what J. Adam Carter and Emma Gordon have suggested. Their claim is that aiming to morally enhance an individual will necessarily "involve aiming to improve certain cognitive capacities which are essential to moral flourishing" (ibid 153). In their piece they make a very important distinction between constitutive aims and intentional aims. Speaking to the distinction they write "this distinction is relevant because we submit that what makes a given enhancement the particular kind of enhancement it is (e.g. cognitive or moral) is its constitutive aim. Put generally, for any domain of enhancement *D*, what makes enhancement *D*-*enhancement* (rather than, say, *F*-*enhancement*) is that *D*-*enhancement* constitutively

³⁴ For a nice review of the ways that this could be accomplished see Shook, J "Neuroethics and the Possible Types of Moral Enhancement" (2013).

aims at the promotion of *D-flourishing*." (ibid 155). I really like this way of detailing the terrain. On such an understanding, moral enhancement for a person P, is an enhancement aimed at the moral flourishing of P (and here we can be agnostic to whatever we believe moral flourishing means). With this understanding in mind is there a way forward in the debate? Does understanding moral enhancement in this way get us past the concerns Harris raised against Douglas? I think that it can.

Following Carter and Gordon (ibid), one way a person could be morally enhanced is to understand wisdom as a moral good. Given that wisdom often comes in two different varieties: practical wisdom and theoretical wisdom³⁵; it will then follow that each can be enhanced in different ways. But why see wisdom as a moral good? The argument here is straightforward.

If we assume that moral flourishing consists in living well, and while knowing how to live well doesn't entail that you actually will live well, it is a necessary element for doing so (ibid 157), then it follows that wisdom (understood as know-how) is necessary for moral flourishing. I raise this point in an attempt to show that Harris's concerns might be thwarted by targeting

³⁵ One need not adopt the view that the two types of wisdom can be parsed out. For more on this see Riggs, W. "Understanding Virtue and the Virtue of Understanding". In *Intellectual Virtue: Perspectives from Ethics and Epistemology*. Depaul, M, and L. Zagzebski (eds) OUP. (2003)

wisdom to be enhanced rather than a specific emotion itself³⁶. Notice how this way of understanding the terrain fits quite well with what I have had to say in the previous chapter, the details here are connected to an underlying virtue ethical framework that would take much work to cash out in consequentialist terms, though maybe not impossible to do. Further, we may circumvent concerns about the moral/cognitive altogether if we look at enhancements as I have suggested early on. If we approach the question of whether a given enhancement is permissible or not in a given instance we must focus on the proposed goal of the enhancement and the practice we are engaged in³⁷. The question of whether a given enhancement is truly a moral or cognitive enhancement then is irrelevant to the evaluation unless the goal is defined as such. But there are further debates worth considering before we move on.

Other debates surround the urgent need to pursue research into the possibility of morally enhancing people beyond the traditional socio-cultural interventions and moral development (Persson and Savulescu 2017; Powell and Buchanon 2016). Further debates concern whether we should be focused on enhancement of individuals or the entire population (See Douglas 2015 for a nice review). For instance, some have argued that the advantages of moral

³⁶ I do think that targeting a specific emotional capacity could also be a way to go but I won't focus on that in detail here.

³⁷ Carter and Gordon (ibid)

enhancement may fall on society or the individual (Foquaert and Schermer 2014). They claim that even though reducing some immoral behaviour may benefit society as a whole it is less than clear that such an enhancement is beneficial to the individual (I'll dig more into their claims in the next chapter). Others have questioned whether morally enhancing the entire population could accomplish the goal of making all of society better (Harris 2013; Perrson and Savulescu 2016; Wiseman 2016). And further, Harris (and others) have questioned if moral enhancement is even possible (See John Harris 2013; Thomas Douglas 2015). For instance, Harris, somewhat of a skeptic of moral enhancement, believes that enhancements aimed at making one moral can easily make one less moral because of the complex nature of morality, as I alluded to earlier. He points to each proposed method to morally enhance to show why it misses the mark or could lead to immoral behaviour just the same (Harris 2013, Moral Progress and Moral Enhancement, Bioethics pp 285-290). But setting aside these initial debates I'd like to add a general point.

I agree with Harris that moral contexts are complex. But appealing to the contexts we find ourselves in most might be helpful when thinking about moral enhancement more generally. Interestingly, acknowledging this complexity seems to suggest humanity wide enhancements as suggested by Perrson and Savulescu (2012; 2016) can't be done in a fashion that they suggested as different

contexts will require different pharmacological enhancements as different drugs will produce different effects and different contexts will give rise to different optimal levels of brain chemicals to do the trick, assuming such chemicals can be isolated. How might such enhancements work? One example again is the workplace; certain work place environments give rise to certain moral decision-making. Consider nursing: dealing with patients and the family's of these patients might require one to have more compassion for others. One problem in this profession seems to be compassion-fatigue (Ekstrom 2018). Not only does this phenomena affect the nurses ability to effectively handle situations with patients and their families where compassion is needed to facilitate proper emotional support and care, but it negatively impacts their relationships with friends and families as well (Ekstrom *ibid*). Thus, morally enhancing a nurse to be more compassionate³⁸ and to handle what is often referred to as compassion-fatigue can help them be more moral at work and at home (see also John Shook's "My Brain Made Me Moral: Moral Performance Enhancement for Realists", *Neuroethics* 2016 pp 199-211, where he discusses a context sensitive approach that is compatible with my suggestion here).

So moral enhancement is the enhancement of abilities and attributes related to moral decision making and follow through of moral decisions we have

³⁸ For a review of the compassion literature and some of the concerns related to compassion see Price and Caouette "Introduction to the moral psychology of compassion" (R & L 2018)

made. A further reason for introducing these distinctions here is to show that the case-by-case approach centered on our goals within a given context can help guide us when evaluating when we should take a given pharmacological enhancement or not for the purposes of enhancing ourselves, morally speaking. Also, recall that the practice we are engaged in will also constrain what we should do (given the achievements connected to these practices and the role they tend to play in our lives); a moral context can take many shapes and often occur on the spot which is also one reason to be sceptical of mass producing more moral behaviour. But consider a night out with your partner whom you've been with for a long period of time, call this a "love scenario". In such scenarios there exists a number of possible pharmacological enhancements that can make interactions with your partner more fruitful (Earp, B.D., Sandberg, A., Savulescu, J, (2015); Savulescu, J, Sandberg, A. (2008)) Thus, much will depend on the state of your relationship as well as the emotional state that you might be in the days leading up to your date or even the morning of your date that was to take place later that evening. But what could do the trick to accomplish this enhancement? One under-explored pharmacological enhancer might just do the trick, Psilocybin, the active ingredient in magic mushrooms. So why does this drug show promise? Let me explain.

There is a long-standing tradition that humans have had with substances that bring about altered states of consciousness. These drugs are often used to give us insights into the human condition. Many who have used these drugs have reported transformative experiences that forever changed who they are. For instance, writing about his experience with mescaline, Aldous Huxley writes:

“The “mescaline experience,” is what Catholic theologians call “a gratuitous grace,” not necessary to salvation but potentially helpful and to be accepted thankfully, if made available. To be shaken out of the ruts of ordinary perception, to be shown for a few timeless hours the outer and the inner world, not as they appear to an animal obsessed with survival or to a human being obsessed with words and notions, but as they are apprehended, directly and unconditionally, by Mind at Large—this is an experience of inestimable value.”(Huxley 1954)³⁹ In less dramatic fashion others have suggested that the reason psychedelics can have morally enhancing effects is due to the diminished sense of self and subsequent reductions in self-interest that accompany the use of the drug (Ahlsklog 2017). Because these drugs make one feel more connected to others and their surrounding in a way that is transformative and intense it tends to have lasting effects. Recent research seems to uphold this hypothesis (ibid).

³⁹ Aldous Huxley, *The Doors of Perception* (London: Chatto and Windus, 1954), http://nacr.us/media/text/the_doors_of_perception.pdf. See page 53 of the version available online at the preceding link. Brian Earp uses this example as well in his excellent essay *Psychedellic Moral Enhancement* (2018).

And as such, we may do well to turn to such drugs to enhance ourselves to be the best versions of ourselves. Of course we must be careful and tread lightly as no drug is free from potentially harmful side-effects even though the preliminary studies suggest that such use would be promising.⁴⁰

Now that we've seen how considerations would work when evaluating when one should enhance themselves, I'd like to now discuss scenarios and considerations that affect how we should evaluate the forced enhancement of others.

⁴⁰ "Psychedelics not linked to mental health problems or suicidal behavior: A population study"
Pål-rjan Johansen and Teri Suzanne Krebs, *Journal of Pharmacology*, pp 1-10 (2015)

Chapter 6: Virtue, Moral Enhancement, and Punishment

In the last chapter it was suggested that moral enhancement might be a subset of cognitive enhancement, and as such, would not require any further justification in order to be justified when it is [This assumes that cognitive and moral enhancement have compatible or complementary purposes.]. However, what was not discussed, and which will be a focus of this chapter is forced moral enhancement, or, enhancement that occurs without consent of the individual being enhanced. One context where this is already occurring (arguably) is within the criminal justice system and I will focus much of the discussion within that context. I argue that forced moral enhancement is not only morally permissible but may be morally obligatory, at least in some cases, mainly those involving violent offenders with a high recidivism rate. Utilizing the goal-orientated framework centered on achievements and human excellence put forth in chapter 4, and combining that approach with different understandings of punishment, I will show when such enhancement might be permissible, impermissible, or obligatory. To facilitate this discussion I will distinguish three important aspects of punishment. There are at least three broad justifications for punishment, retributivist, consequentialist, and hybrid justifications. Consequentialist accounts of punishment include a variety of familiar justifications, two of which deserve special attention: (i) rehabilitation of the offender and (ii) protection of

society at large. Incarceration has been thought to accomplish both of these goals and has been adopted by many consequentialists for this very reason. If we can show that enhancement as punishment accomplishes this goal with less resources and less risks to the offender, then those in favor of punishing for strictly rehabilitative reasons will be committed to enhancement as a viable replacement for incarceration in many instances. At worst it would be an equally justifiable source of punishment for those in favor of rehabilitative models. [Is forcibly enhancing an offender for the sake of rehabilitation necessarily a form of punishment?]

First, I will discuss what punishment is thought to be and follow that by canvassing the different ways that punishment is justified. I'll settle on a hybrid theory of punishment that incorporates the main elements of two distinct views and defend that against objections. Regardless of how one justifies punishment, one of the aims of this chapter is to show how one's preferred construal of punishment and its justification can generate a moral evaluation of both forced and voluntary moral enhancement.

6.1 Punishment: 2 Questions

The institution of punishment is one that is regarded by many to be an essential component of a stable society. And although most of us think that the practice of punishment can be justified, how it gets justified is of great importance. It's important because how we justify the institution of punishment gives rise to the legitimacy of the ways in which we practice punishment. I believe that the best way to justify any institution is to take a look at the goals of that institution, and the institution of punishment is not an exception to this. Once we understand the goals of the punishment we are in the best position to morally evaluate the numerous ways that the state and others impose punishment. So, understanding how the institution of punishment been understood will be my first task.

Answering the question: What is Punishment? Will come first followed by the question "How should we punish?."

6.2 What is Punishment?

As Bedau et. al (2005) nicely point out "*Defining* the concept of punishment must be kept distinct from *justifying* punishment. A definition of punishment is, or ought to be, value-neutral, at least to the extent of not incorporating any norms or principles that surreptitiously tend to justify whatever falls under the

definition itself.” To put this another way, punishment is not supposed to be justified, or even partly justified, by packing its definition in a manner that virtually guarantees that whatever counts as punishment is automatically justified. As such, I think it’s best to understand punishment broadly. I will understand punishment to be any infliction or imposition of a penalty by an authority (explicit or implicit) onto another for a transgression that is the fault, at least in part, of the person guilty of the transgression.

So, how can we justify the institution itself? Though there have been many attempts to do this in the past I think it’s safe to break down these attempts into a three broad categories: retributive theories, consequentialist theories, and hybrid theories.

6.3 The Justification of Punishment: Why do we punish?

Retributive theories of punishment are backward-looking theories of punishment. Punishment on these theories is justified by looking “solely in the nature and extent of the past immorality of the criminal”. Such views are often attributed to philosophers like Hegel and Kant. Punishment is justified on these views because they endorse the idea that we should give wrongdoers what they

deserve. A particular punishment is fitting on these views when it “fits” the crime the criminal is guilty of. This fittingness point is one of the more difficult for adherents of this theory to develop as it is no small task to know what makes a punishment fitting, especially in cases including the deaths of multiple people. But given that our aim is not to champion one justification over another let us move along. To reiterate, my purpose in distinguishing between these different types of punishment is to show how each could endorse my idea that moral enhancement, understood as a goal of punishment, is compatible with most, if not all construals of our most well established theories.

Consequentialist theories of punishment are forward-looking accounts of punishment. These theories justify punishment in a number of ways, but each is focused exclusively on the future safety of society at large. Though this approach cares about the criminal offense, they care only because this information can better direct how long and in what way they should punish the particular offender. We punish people on this view so that we can keep society safe. There are multiple ways to do this. One way is to treat any underlying condition that may be partly to blame for why the criminal acted in the way that they did. Another way to justify this sort of punishment is by appeal to the deterrence of the criminal as well as others who may wish to engage in criminal activity. Keeping a prisoner behind bars deters them and others from engaging in similar

activity and this keeps society safer which is why such punishment is justified. One problem with this view is that one need not wait until someone commits a crime in order to punish them. Given that the practice is justified by strictly forward-looking considerations (safety, etc.) then it is fair game to punish someone who is not guilty of any particular act but who may pose a higher risk for harm than others.

Due to the general concerns raised against these monist justifications, many adopt what we might call a hybrid view. Hybrid theories of punishment can be justified in a number of ways but to be a hybrid theory it must take into account both forward-looking and backward-looking considerations. These theories often justify whom they punish by appeal to backward looking considerations (who did what and why). This alleviates the concerns presented by strictly forward looking accounts. This may also do the work to set a range of penalties. Thus, 10 years might be a sufficient amount of time to take away from an offender if they do something quite violent. But on these views how we punish can have a consequentialist justification. So, justice might require that we limit someone's freedoms given the particular harms they gave caused but given that the view is justified for forward looking reasons as well (hybrid) it would follow that another goal of punishment is to make the person and society better off in the process. This could take many forms and this sort of justification is the

most fruitful to those looking to overhaul a corrections institution that seems to abuse it's prisoners and cost the tax payers far too many resources.

6.4 Enhancement as Punishment

Given that both hybrid theories and consequentialist theories have as a main aim of it's practice the goal of making society safer, it follows that one way of doing this is to make the criminal more moral. I argue that if a central justification for punishment is that the criminal offender be rehabilitated or made to act more moral in the future to keep society and themselves safer, then forced moral enhancement could be seen as a viable option. Even retributive theories could use moral enhancement if the driving goal of punishment is giving people what they deserve. Kant and neo-Kantians argue that we punish because to do so is to respect the actions of the criminal. We give them what they deserve. SO it might be justified that to morally enhance them is to do just that. Whether or not this flies, I hope it is now apparent that at least most of our goals associated with punishment are the kinds that can be accomplished by morally enhancing those convicted of a crime.

Moral enhancement as a punishment does not pose any further problems than does incarceration as it is currently practiced. Even a more humane

incarceration model does not necessarily fare better than our proposed alternative (moral enhancement as punishment), at least not for those who adopt a rehabilitative justification for punishment. Thus, I suggest that we endorse a “mixed bag” approach to punishment.

6.5 Objections

Moral enhancement is controversial to some. For instance, Focquaert and Schermer (2015) argue that there is a clear distinction between indirect and direct moral enhancement and that this has bearing on the moral permissibility of moral enhancement. They argue (and others have brought up similar concerns; Vincent 2014 and others) that the means to achieve moral enhancement matter, citing concerns with identity and autonomy with direct moral enhancement that are not present with indirect moral enhancement. Given that moral enhancement as punishment can take the form of direct moral enhancement we tackle these concerns head on. Once we get clear on the justification of punishment we then show how certain frameworks do not take the threats raised by Focquaert and Shermer seriously. If one were to take issues stemming from direct moral enhancement seriously, then one would be hard pressed to accept traditional incarceration methods as well. I argue that incarceration methods face the same

difficulties. Thus, following earlier work by Thomas Douglas (2013; 2014), I argue that if current methods of punishment are not problematic regarding identity or autonomy issues, then moral enhancement as punishment should not either. I also argue that the direct/indirect dichotomy is not applicable in the context of punishment unless it can be shown that direct or indirect is preferable for further reasons.

6.6 Response to Focquaert and Schermer

In their paper “Moral Enhancement: Do Means Matter Morally?” Focquaert and Schermer pose some concerns for a particular type of enhancement, they dub these as passive indirect forms of enhancement. They couch their concern with such enhancement in the context of moral enhancement.

I'd like to focus on two general issues discussed in the paper regarding the use of direct, passive interventions to morally enhance subjects that have impairments in moral decision making and/or possess counter-moral personality traits. First, I'd like to consider the perceived threats to authenticity raised by the authors. I'll argue that the threat is not apparent given that these enhancements, presently hypothetical as pointed out by the authors, do not determine their subjects to act in any particular way. Given that the subjects will still have free

will, it is suspect to assume that the behaviour stemming from decisions after enhancement are not authentic. Next, I'll briefly consider the threats that the authors raise regarding "concealed narrative identity changes". I'll suggest that these concerns might be overblown, though they are important to consider when thinking about the permissibility of direct, passive interventions. Lastly, I'd like to focus on the enhancement of criminal offenders. Given that we already restrict the autonomy of those in prison and given the goal of incarceration is to alter one's moral compass, I will suggest that the concerns raised by the authors, even if not overblown, might be moot given that we do not value the identity of those who identify strongly with the counter-moral personality traits that these offenders exhibit.

6.6.1 Threats to Authenticity

Focquaert and Schermer argue that there is a morally relevant difference between what they call active and passive interventions. On their view, active interventions seem less likely to threaten identity and autonomy because of the nature of the intervention. Active, indirect interventions entail that the agent is involved in the process of changing their brain, which usually takes the form of therapy or moral education. This process is usually much longer and requires that the agent undergoing the change has room for rational reflection and

deliberation about the changes that are under way, as well as an active engagement from the person undergoing the change. On the other hand, the authors indicate that direct, passive interventions create a greater cause for concern. Passive interventions (i.e DBS, TMS, and tDCS) have a greater potential to compromise identity and raise intrinsic doubts concerning authenticity and autonomy.⁴¹ It is claimed that this is so because without the active engagement from the person undergoing the DBI we bypass conscious reflection, continuous rational deliberation, and autonomous choice. This reflection, deliberation, and choice is assumed by the authors to be essential for the behaviour to be authentic to the enhanced subject. This assumption is what I'd like to hear more about. Why think that directly altering an individual's brain functioning bypass one's authenticity? Let me offer some reasons to believe that the threat to authenticity might be overblown by the authors.

First, is it the case that we ever deliberate about the psychological changes we find ourselves with from day to day? For instance, consider waking up in the morning and finding yourself edgy. We might reflect on why it is we are edgy, but after deliberating we might not find the source. This seems plausible. But just

⁴¹ Nicole Vincent raises similar concerns in her article "Restoring Responsibility: promoting justice, therapy and reform through direct brain interventions", *Criminal Law and Philosophy* (2014) 8: pages 21-42.

because we find ourselves edgy it doesn't follow that we are forced to let that edginess win the day, so to speak. We can still deliberate and choose to do things that alter our mental state. We may try watching a comedy or listening to music that helps us overcome our edginess. We may decide to take a drug to remove the edge. These choices are available to us even though we have no idea why we are edgy. The point of bringing this to light is to show that a changed psychological state, even a state that we do not know the source of, does not determine us to act in any particular way. We are still the source of what we decide to do with our mental states. Even though finding ourselves edgy out of the blue will have an affect as to what actions will seem salient to us, it doesn't cut off all of our options. And, given that we normally don't choose what state we find ourselves in, the authenticity of our selves and the actions that flow out of us seems to be intact. Similarly, if the cause of our edginess is the result of some direct, passive intervention, it doesn't follow that what we decide to do about this is somehow inauthentic. External factors often put us in a variety of psychological states that we do not choose to be in. For these reasons I would like to hear more from the authors regarding why it is that direct, passive interventions pose any further threats to our authenticity than the external factors that often put us in a variety of psychological states.

I believe authenticity is important when thinking about our actions. If an action is authentic, we must be the source of that action - it must be up-to-us [yes], so to speak. But to use the language of authenticity with regards to our psychological states seems to raise a bunch of issues. If one admits that our psychological states are often altered and produced, in part, by external factors, then I think we need to hear more as to why direct, passive interventions pose greater risks to the authenticity in question. It seems that our actions can still be authentically ours even if some of the psychological states or newly implanted ethical alternatives are partly the cause of our action. After all, external factors often put us in a variety of psychological states but we do not think that the actions that arise from these states are inauthentic so why think that the actions that arise from a person that has been morally enhanced, given that many of these factors we are unaware of, are inauthentic?

6.6.2 Threats to Identity

Fouquaert and Schermer claim that “to be sufficiently aware of one’s narrative identity, a narrator must be able to coherently ‘explain’ or communicate the narrative unfolding of her life story”. I don’t want to challenge this claim. Instead, I’d like to raise some questions as to why it is that an individual enhanced directly via passive interventions cannot coherently explain

or communicate the narrative unfolding of her life story. Let's consider the case of Manuel.

Manuel never acts morally; he is a person who doesn't consider the feelings of others and takes pride when others point out to him that he is not a person who cares about the well-being of others. One night while sleeping, Manuel's mom morally enhances him directly [with a drug?] and passively in a way that makes him more empathetic and he is unaware of this enhancement. Manuel is aware of the change though: when he reflects on the person he is, much to his surprise, he finds himself caring about others more. Why does he lose the ability to speak to this change? And if he doesn't, then why think his narrative identity is threatened? Is it typically the case that we know how and why our feelings change, or why we mature or have an epiphany?

It is true that we may be able to tell a story as to why we change sometimes, pointing to some specific experience that gave rise to the change in feeling or disposition. However, this is often not the case. One might wake up by the side of their spouse whom they loved and wanted to be with all of the days prior to this one, but on this day could realize they do not want to be with them anymore. It happens quite often and sometimes occurs without the person changed knowing why. We can try to make sense of why we suddenly feel this way but it's not clear to me that we can always know why. More importantly,

this lack of knowledge doesn't seem to threaten our narrative identity. As long as we have the ability to endorse or choose not to endorse the way we feel at a certain time it seems that our narrative identity is in tact.

In sum, the authors endorse DeGrazia's theory of personal narrative which they describe as depending on two things: "whether the person identifies with her new traits or desires; and whether she identifies with their genesis, i.e., the way they came about." But we need to examine why this second condition must be met. In other words, why should we buy DeGrazia's theory? Why isn't enough to meet the first condition to say that we have a narrative identity?

I believe abrupt changes can be incorporated into one's narrative. And further, that identity should be understood as a cohesive narrative. One can identify with their new self as a direct result of the DBI that was forced on them due to choices *they made*. Further, if one believes that the self is dynamic and always changing with new experiences this would not be a big bullet to bite. This would require that they have knowledge of the intervention; however, it doesn't follow that they must have consented to it in order for it to be incorporated into one's narrative. It is a part of my narrative identity that my two parents raised me and that I was punched by a bully in middle school. But I didn't consent to either. Similarly, one who has been morally enhanced might be more moral (which would be a distinct difference to the person who didn't care about

morality prior to the enhancement) and might understand that this is a result of the state forced DBI imposed on them from their own transgressions. This is not problematic because they would still have memories of their past self and those memories, and coupled with their new take on moral situations, this would give rise to a distinct self. So, while these new salient moral decisions might seem alien, they could easily identify with them and endorse them once they recognize that their new found moral awareness will open doors human flourishing that had previously been closed. Further, such drastic changes to one's self is no different (morally speaking) from many transformative experiences that we often go through without consent (I'd point to the work of Laurie Paul as evidence for these sort of situations[What is it about her work that is relevant here? Explain]).

6.6.3 Direct, Passive Enhancement on Criminals

Before concluding I would like to turn to a specific case of moral enhancement, the enhancement of convicted criminals. For example, let's consider DBI's that aim to morally enhance persons convicted of a crime. The authors present concerns related to a person's autonomy, authenticity, and identity, which in turn raises serious doubts about the moral permissibility of such interventions in general. But, given that many who will need these enhancements are likely to be the criminal population, I wonder if their concerns apply to a population that already has limited autonomy and whose identities

we do not respect.⁴² Here I'm thinking of the person who identifies as a rapist or a person that identifies as the type of person who will assault another for looking at them "funny". Do we respect such identities? Do we care if folks cannot recognize themselves as **those** types of people anymore if they were morally enhanced? It's doubtful. Even if we admit that a convict's self is abruptly and drastically changed this need not trouble us. Implemented properly, DBI's can bring about benefits for society at large and/or for the convict themselves. Next, even if we agree that abrupt changes to the convict might be alter their identity, this abruptness of change need not be considered negative, especially for those individuals who identify with harmful and criminal behaviours. Why value the identity of someone who identifies as a racist or as someone who beats women (assuming they have been convicted of crimes relating to these world views)? We already restrict the scope of a convict's autonomy when sentencing them to prison or mandated rehabilitation. We do this because we deem that identifying as such is not a worthy identification. And further, if someone identifies with morally bankrupt traits we try our best to eradicate them, short of methods that could harm the criminal. I would be interested to hear from the authors whether making someone morally better can be considered harming them.

⁴² Bublitz and Merkel consider this population in their 2014 paper "Crimes Against Minds: On Mental Manipulations, Harms and a Human Right to Mental Self-Determination", *Criminal Law and Philosophy* 8: 51-77.

Further, we could ask why think that the direct, passive method is worse? Comparing traditional rehabilitative methods or active, indirect interventions, it seems an argument can be made that both are just as likely to cause problems to identity in criminal offenders. In fact, there might be more reasons to be concerned with the longer process when thinking about identity and autonomy. Change likely occurs in both active and passive interventions, however, in the case of active interventions, changes are accompanied by some negative side effects (which are less likely to occur with passive, direct interventions). Given the amount of time that convicts spend with others who are not committed to changing their behaviour, this forces those who might take an active role in their cognitive changes to build defense mechanisms that also shape who they are. Given that these mechanisms can become part of one's character, it's worth investigating how much this can negatively affect their future relationships and life plans. It doesn't seem far fetched to assume that the active, indirect interventions carry possible harms to the criminal offender that direct, passive interventions do not. This suggests that direct, passive interventions might be a better choice when considering all the pros and cons when deciding how to rehabilitate or morally enhance our convicted felons who identify as rapists, racists, and those quick and ready to assault folks who pose no physical threat to others.

Lastly, for those of us who believe some sort of hybrid view of punishment is correct, that is, that the aims of punishment are best served by incorporating both retributive and consequentialist elements, then it seems that we owe it to the person being punished (that their restricted liberty is likely to result in effective rehabilitation) and we owe it to society to use their tax dollars effectively in not only deterring future behaviour but also in protecting

In conclusion, not being allowed to pursue one's interests (because of incarceration and limited freedoms more generally) would seem to have a much stronger negative effect on the self than do direct, passive interventions. Having desires that cannot be fulfilled forces one to have a constant sense that their life is unfulfilled and can lead to depression and other mental disorders. Thus, having a severely restricted set of options to pursue because of forced rehabilitation or incarceration seems to be a harm that may be lessened with the use of direct, passive interventions due to the abrupt nature of these latter interventions.

Given that one of the main goals of incarceration is rehabilitation, it seems that direct, passive intervention could be better at accomplishing this goal, even if we admit that one may be alienated from their prior non-moral self. Direct, passive interventions can alter one's brain so that moral choices become salient or live options. This should be seen as a positive rather than a negative effect on one's autonomy. The moral options are now live, but, they are not forced and thus

their decision to endorse their new moral inclinations keeps their authenticity and personal narrative intact. Affording one the opportunity to flourish seems better than hoping that one can come to some realization that they should see some moral action as a live option to them, especially when the track record of active traditional rehabilitation is so poor. Replacing IBI's with DBI's might allow us to extend their autonomy rather than stunt it, contra the suggestion by the authors. The abrupt change in one's cognitive apparatus might allow for them to be released much earlier than they normally would, given that the aims of the rehabilitation would have been met. I'd like to hear more from the authors regarding enhancing directly, and passively in the context of criminal rehabilitation. After all, the population of individuals partaking in the most vicious of crimes is most ripe for the implantation of such interventions.

Chapter 7: Conclusion

To recap, I have argued that pharmacological enhancements should be morally evaluated on a fine-grained basis, that is, each should be evaluated on a case-by-case basis rather than a one size fits all approach that tends to be endorsed by both lay people criticizing the use of such enhancements as well as policy makers who ban such substances from a variety of environments. Further, I have suggested that a consequentialists approach is not the best approach to evaluate such enhancements. To show this I sketched out a virtue approach that focuses on the goods internal to the practices in question as well as the goals one may have while engaging in those practices. While the consequentialist considerations are important in weighing out the pros and cons of using a particular pharmacological enhancement, they do not seem nuanced enough to account for the wrong-making features present when considering our evaluations of pharmacological enhancements. I have argued that further considerations are helpful in assessing the morality of using each enhancement. The considerations I pointed to were achievements and what they mean to our lives, as well as the character traits that can be developed when considering a multitude of approaches to achieving our goals. Depending on the goals we have it may turn out that not only is pharmacological enhancements permissible but they may be obligatory depending on what our goals are and how the goods

connected to those goals may be legitimately attained by deciding to enhance. I have briefly sketched what evaluating a given enhancement would look like by applying this process to a specific case of moral enhancement, the case of just punishment. Though the ideas in this last section of the dissertation as spelled out in chapters 5 and 6 were exploratory, my hope is that readers can now see how what I have said both about how we should understand enhancement in chapter 2 coupled with the positive approach I eluded to in chapter 4 might play out in practice. Though much more work needs to be done for a comprehensive evaluative process of pharmacological enhancements to rear its head I do believe the kernels of such a view can be found in what I have written here.

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