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AN ETHICAL ANALYSIS OF DOPING IN THE AMATEUR BODYBUILDING COMMUNITY

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ABSTRACT

The thesis provides an ethical analysis of doping in the amateur competitive bodybuilding community. It starts with a historical overview of the sport in general, a description of bodybuilding as a sport, the various branches of bodybuilding, and the doping practices of bodybuilders. It continues with current ethical analyses regarding doping in sports – the determination of a treatment versus an enhancement; the harms to the user, other athletes and society; the interference with the "spirit of sport;" and cheating/fairness arguments. Ending with an ethical analysis of drug usage in the amateur competitive branch of bodybuilding, the thesis draws on arguments related to fairness, medical misinformation, and the intrinsic nature of bodybuilding to argue that doping practices should continue to be banned and drug testing practices improved and strictly enforced.

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1. Introduction: Bodybuilding, Drugs, and Ethics

Performance-enhancing drugs (PEDs) are substances that produce supraphysiologic effects in people at the cost of potentially causing adverse health consequences. Sport was once a health-promoting practice that incorporated play in a physically active manner. However, it has evolved into a "win at all cost" practice where drug use is commonplace. Drug usage to enhance performance in sports has popularized to the extent that it poses public health risks and interferes with the foundational pillars of sports: health, physical activity, fairness, and entertainment.

Bodybuilding often gets overlooked as a sport because it focuses on the aesthetic changes as opposed to the functional changes stimulated by physical training. Like for any other sport, drug abuse impacts bodybuilding equally, if not more. Nowadays, sociocultural expectations of the male physique demand higher definition and muscularity. In a society geared towards better results, PED usage in bodybuilding is ethically relevant due to its large impact. Competitive bodybuilding affects the demand and popularization of PEDs in noncompetitive culture. This only fuels the fast-paced PED epidemic that needs to be resolved.

The thesis first provides a historical overview of bodybuilding to establish it as a sport that comprises of various forms (Section 2). Studying the rise of PEDs in modern bodybuilding culture, it then analyzes the ethics of doping in bodybuilding (Section 3). It ends by using that information to take a nuanced approach to the ethics of doping in amateur competitive bodybuilding and suggest remedial solutions for the sport's future (Section 4).

2. Brief Historical Analysis of Bodybuilding

2.1. Bodybuilding in history

Bodybuilding is a sport that can be traced back to ancient Greece, where Greeks interpreted athletics as a "celebration of the human body." The ancient Greeks strived for the perfect combination of "the aesthetic ideal of the beautifully formed male physique (the *kalos*), with the moral and political ideal of the good male citizen (the *agathos*)" (Wyke, 1997, p. 51). Thus, the ancient Greek Olympic Games played a crucial political and social role. The practice of public, physical training with oiled bodies legitimized citizenship by demonstrating the preparation for warfare. In other words, its purpose was to exhibit the state's strength and power.

The exhibition of muscular physiques did not resurface until about the late 19th century. In particular, it appeared in 1889, when Eugen Sandow, at the age of 22, won "the title of strongest man on earth" (Crompton, 2011, p. 37), introducing muscular aesthetics, a new aspect to strongman competitions. The trait that distinguished Sandow from other strongmen was his physique. Other strongmen had a bulkier appearance with less noticeable muscle definition.

Sandow's focus on the male physique altered the sociocultural expectations of "white, middle-class males" (Crompton, 2011, p. 38). As Crompton (2011) explains, "Sandow blurred the distinction between culture and nature by exhorting middle-class men to artificially build 'natural' muscle in gymnasia in an attempt to emulate ancient Greek statuary" (p. 38). With his rapid growth in fame, Eugen Sandow was "named the Professor of Scientific and Physical Culture to King George V [and] advertised his exercise methods and muscled physique across multiple media" (Crompton, 2011, p. 37). His popularity in mass media increased his following among the early 20th century British male population. Much of the information he publicized persuaded his followers "to think of their muscles in aesthetic terms [, differentiating] between

bodybuilders and weightlifters" (Crompton, 2011, p. 39). Crompton (2011) further explains, "a bodybuilder did not develop brute ability to lift weights but rather pursued a proportionate and symmetrical and therefore - to Sandow's mind - healthy body" (pp. 39-40). For this reason, he is known as the "first modern bodybuilder" and is recognized as the person who separated bodybuilding from weightlifting.

In 1901, Eugen Sandow organized bodybuilding's first official competition in England called the "Great Competition," legitimizing bodybuilding as a sport. This competition paved the way for the sport to progress into the modern-day bodybuilding competitions the public knows today as "Mr. America," "Mr. Olympia," and "Mr. Universe" contests ("The Great Competition," n.d.). Until his death in 1925, Eugen Sandow continued to share his training knowledge to produce a muscled body that represented classical Greek statues (Crompton, 2011, p. 40).

2.2. The defining aspects of bodybuilding. Is it a sport?

The claim that bodybuilding is a sport is contested. Drawing on Bernard Suits (1988), sport philosophers often define sports as games of physical skill. With regard to the physical skills, bodybuilding includes (a) physical training that best produces maximum muscular hypertrophy and (b) posing in different ways to demonstrate muscular size and definition. As for its game aspects, bodybuilding involves competition aspects focused entirely on bodily form and aesthetic. For instance, Wyke (1997) explains, "Concerned with the display of static moments of extreme physical tension, [competitive] male bodybuilding involves the pleasures of looking at a muscular body that performs no other function than the display of itself" (p. 53). The current judging criteria for bodybuilding competitions include traits that define the "overall quality of

muscular development:" mass, definition, proportion, symmetry, and stage presence ("Bodybuilding Judging Criteria," n.d.).

Although physical skills and competition are essential traits of bodybuilding, Aranyosi (2018) argues that bodybuilding is not a sport, because it is more closely related to art than it is to sport. Drawing on phenomenology, he identifies two aspects of the body, *Leib* (the "lived body") and *Körper* (the "objective body"). Whereas competitive sports generally focus on the *Leib* because functional traits – i.e., physical strength, skill, strategy, speed, etc. – are required to be successful, aesthetic competitions center more closely on the *Körper*. Thus, for Aranyosi (2018), bodybuilding should not qualify as a sport because its competitive aspect is entirely based on bodily aesthetics (*Körper*) as opposed to bodily functions (*Leib*).

To further support his claim, Aranyosi (2018) argues that bodybuilding does require physical preparation prior to the competitive event, but he contends that such a preparation is not the only requirement of sport. Sport requires the demonstration of skill, strategy, stamina, and physical strength. For example, soccer requires skill to maneuver the ball around the field, strategy to outsmart the opposing team, stamina to run and move the ball around a large field, and speed to outrun the defense. A bodybuilding competition primarily consists of men and women posing in different ways to accentuate muscular hypertrophy and definition. The competitors are not required to have any type of functional ability. Thus, Aranyosi (2018) states that bodybuilding should not be considered a sport.

Aranyosi illustrates his claim by comparing bodybuilding to powerlifting. There is overlap between the two practices regarding the style of training regimens. Moreover, modern-day bodybuilding evolved out of powerlifting (Aranyosi, 2018; Wyke, 1997). However, powerlifting competitions fit the definition of sport more appropriately because the judged aspect

is the performance of the heavy lift. In contrast, in bodybuilding, muscle hypertrophy is an autonomic adaptation to physical stress, and flexing a muscle is not a skillful activity (Aranyosi, 2018).

Contra Aranyosi (2018), it could be argued that the two sports demonstrate physical strength. The difference lies in that powerlifting does it through direct methods (i.e., heavy lifts), and bodybuilding through indirect methods (i.e., posing to highlight muscular size and definition). Therefore, if a demonstration of the *Leib* (the live body) is a requirement for sport, bodybuilding qualifies as a sport, for the athletes demonstrate a functional trait, physical strength, but through indirect means.

The case against Aranyosi's position that bodybuilding is not a sport can be strengthened by appealing to the founder of the International Olympic Movement, Pierre de Coubertin. De Coubertin considers a sport to be a "habitual cult of intensive muscular exercise based on the desire for progress and capable of going to the point of risk" (as cited in Suffolk, 2014, p. 341). In other words, a sport is a physically active endeavor in which participants motivate themselves to progressively improve their performance. Bodybuilding includes extreme levels and frequent bouts of physical training to produce as much muscularity as possible. This activity matches with the inclusion criteria for a sport (Suffolk, 2014).

2.3. The difference between amateur competitive, amateur noncompetitive, and professional competitive athletes/bodybuilders

In sports, athletes are divided into three categories: amateur competitive, amateur noncompetitive, and professional competitive. The primary difference between amateur and professional athletes is income. Amateur athletes do not receive financial compensation, whereas

professional athletes do (Rush, n.d.). In terms of bodybuilding, this would follow this same trend. That is to say; amateur bodybuilders do not receive any money for their performances.

Other differences relate to the athletes themselves and the competition preparation regimens. As it takes more experience and skill to enter professional sports, professional athletes tend to be older than amateur athletes (Rush, n.d.). However, this is not necessarily the case in bodybuilding. For example, Jeff Seid became an IFBB (International Federation of Bodybuilding) professional athlete at age 19 at NPC (National Physique Competition) Jr. National in June 2013 (Galaraga, 2013). Nicole Neargarder earned her IFBB Pro Card in the 2016 NPC Universe Championships at the age of 16 (Mahbub, n.d.). Amateur bodybuilders, including competitive and non-competitive, can also be around the same age as the professional bodybuilders because the sport mainly requires training and specific diets for muscular growth.

Since amateur athletes participate in the sport for recreational reasons, training is typically less intense than it is for professional athletes. Pro athletes have to alter their lifestyle to fit the sport – i.e., strength training, sport practice, nutritious eat habits, competitive events, mass media involvement, travel, etc. (Rush, n.d.). This aspect is not necessarily true in terms of amateur bodybuilding, including competitive and non-competitive. Bodybuilding, in general, requires a high level of dedication to regular hypertrophy training and a specific diet. Regardless of the reasoning for participating in bodybuilding, amateur bodybuilders must maintain an altered lifestyle to the same extent as pro bodybuilders.

Additionally, pro athletes generally have medical services included in their contract. Therefore, all of their medical expenses for potential injuries/conditions are covered. However, amateur athletes are liable for their own injuries since no team or organization is paying for them to partake in the sport (Rush, n.d.). This trend is also true for bodybuilding.

Finally, the competitive or noncompetitive aspect of the sport has little relevance on the athlete's goal. Competitive bodybuilders desire feedback from judges regarding their physiques (i.e. scoring based on size, proportion, symmetry, definition, etc.) compared to the other competitors' physiques. Noncompetitive bodybuilders train and follow the same goal to demonstrate overall muscular development. However, unlike professional bodybuilders and competitive amateurs, noncompetitive amateurs are judged primarily by themselves and have little interest in having others compare their bodily forms to other bodybuilders (Bednarek, 1985, pp. 240-241).

2.4. Doping practices in society and bodybuilding

Bodybuilders take a plethora of drugs for performance-enhancing purposes – androgenic-anabolic steroids (AASs), human growth hormone (hGH), IGF-1, insulin, diuretics, and gonadotropins. These athletes mix different drugs "in cycles of increasing and decreasing concentrations" to maximize muscle growth and fat loss and minimize adverse side effects and "risk of detection" (Pope et al., 2014, p. 348). Because these drugs were created to treat disordered functioning, not enhance normal functioning, using them in this capacity leads to many adverse health effects.

Androgenic-anabolic steroids "increase muscle mass or reduce fat mass" (Pope et al., 2014). The adverse side effects related to AAS usage include "dyslipidemia, cardiomyopathy, hypogonadism from AAS withdrawal, major mood disorders, and AAS dependence" (Pope et al., 2014, p. 352). The drug first started to be promoted for performance enhancement in the 1950s by Dr. John Ziegler, who "administered AAS to a number of world-class bodybuilding competitors" (Kanayama & Pope, 2018, p. 5). More recently, the majority of people who use

AASs are "ordinary rank-and-file male gym clients, most of whom are not using AAS for any competitive athletic purpose, but instead are using these drugs simply because they want to look bigger and more muscular" (Kanayama & Pope, 2018, p. 8). Androgenic-anabolic steroids are taken "orally, transdermally, or by [intramuscular] injection [, but] the most popular mode is the in route [on a] weekly or biweekly [basis]" (Pope et al., 2014, p. 350).

AASs are modified and synthesized testosterone. Blouin and Goldfield (1995) studied AAS usage among competitive and non-competitive bodybuilders, runners, and martial artists (totaling 500 participants). They showed that significantly more bodybuilders reported AAS usage than the athletes in the two other sports – 44% of bodybuilders, 2.1% of runners, and 0% of martial artists. Within the bodybuilding group that used AASs, 80% were competitive bodybuilders, and 20% noncompetitive bodybuilders. The reasons for using steroids included "improve looks" (42%), "increase size needed for competitive sport" (32%), "improve overall athletic performance" (11%), and a variety of other reasons (15%) (Blouin & Goldfield, 1995, p. 163).

Human growth hormone (hGH) is a metabolic hormone that interacts with insulin through IGF-1 in a healthy body to regulate "lean body mass [formation,] fat [reduction,] bone mineral density [maintenance, muscular] strength and aerobic capacity" (Pope et al., 2014, p. 357). Human growth hormone and IGF-1 are used because they are cheaper on the black market compared to other drugs (Pope et al., 2014, p. 343). The scientific information on how hGH and IGF-1 affect normal-functioning people is quite limited. Pope et al. (2014, p. 358) claim that most users take it with AASs. Therefore, the results are likely skewed by the inclusion of AASs. Nonetheless, a systematic review authored by Pope et al. (2014, p. 358), demonstrated a link between supplemented hGH and increased lean body mass. The study showed that overall

strength and exercise capacity is either not affected or reduced. Potential adverse effects could be determined from "patients with acromegaly, a disease of excessive GH production with elevated GH levels at all times" (Pope et al., 2014, pp. 358-359). These adverse effects include "acral enlargement, excessive sweating, hypertension, congestive heart failure, cardiomyopathy, sleep apnea, arthropathy, carpal tunnel syndrome, increased insulin resistance, neuropathy, diabetes, and increased mortality" (Pope et al., 2014, p. 359).

Another common PED taken by bodybuilders is *diuretics*. These drugs "increase the rate of urine flow and sodium excretion in order to adjust the volume and composition of body fluids or to eliminate excess of fluids from tissues" (Cadwallader, de la Torre, Tieri, & Botrè, 2010, p. 1). The medical purpose of these drugs is to treat "hypertension, heart failure, liver cirrhosis, renal failure, kidney and lung diseases, as well as a more general reduction of the adverse effects of salts and/or water retention" (Cadwallader, de la Torre, Tieri, & Botrè, 2010, p. 2). Their usage in sport did not occur until 1968, when other PEDs also began to popularize (Cadwallader, de la Torre, Tieri, & Botrè, 2010, p.1). In bodybuilding, these drugs are used "to remove water from the body [causing] a rapid weight loss that can be required to meet a weight category [and] to mask the administration of other doping agents" (Cadwallader, de la Torre, Tieri, & Botrè, 2010, p. 2). From 2003 to 2008, the total number of positive cases of diuretic usage discovered by all World Anti-Doping Agency (WADA) labs have tripled (Cadwallader, de la Torre, Tieri, & Botrè, 2010, p. 2). Common adverse effects caused by diuretics include "dehydration, muscle cramps, dizziness, potassium deficiency, drop in blood pressure, loss of coordination and balance, and death" ("Understanding the risks of performance-enhancing drugs," 2018).

Human Chorionic Gonadotropin (hCG) is a hormone that causes the production and release of endogenous testosterone. As determined, AAS usage began in the mid to late 20th

century, creating the issue of AAS dependence. Just as with many other drugs, the body becomes addicted to steroids, and the complete termination of exogenous testosterone via androgenic-anabolic steroids causes severe withdrawal. Thus, soon after AAS abuse popularized in the 1980s, hCG began to be used to wean athletes off of steroids (Strahm, Marques-Vidal, Pralong, Dvorak, Saugy, & Baume, 2011, p. 63). Bodybuilders, as well as other athletes on AASs, take hCG to restart their physiologic systems that produce endogenous testosterone since they became relatively inactive from the excess exogenous testosterone (Pope et al., 2014, p. 348).

3. The Ethics of Doping in Sports

3.1. Introduction

As mentioned above, testosterone-derived drugs were synthesized in the 1930s to treat psychological disorders. However, the ethical debate on performance-enhancing drugs is more recent, for it was initiated during the mid-20th century. Arguments focus on (a) the definition of treatment versus enhancement, (b) health/harm of various individuals/groups, (c) interference with the spirit of sport, (d) cheating, and (e) competitive fairness. Because of the differences among various sports, it is difficult to relate all ethical arguments to every sport in the same manner. Some sports, such as American football, rugby, lacrosse, and hockey, require speed, stamina, strength, skill, and strategy. Other sports focus on stamina and speed, like running and swimming. Other sports focus on strength and skill, like powerlifting. However, all sports require determination, physical activity/training, sociocultural significance, and at least the potential for a competitive element. All of these factors are considered when discussing the ethical arguments on doping in sports.

3.2. Treatment or enhancement

With the rapid growth of medical advancements, a debate arose on whether artificial methods used to augment performance should be allowed in sport and how to determine which methods should be allowed. In other words, at what point does normal functioning end and enhanced functioning begin? Hoberman and Morgan (2007) inquire, "To what extent do we want to preserve – and to what extent do we want to alter – human traits?" (p. 35). When looking at society, people with depressive and anxiety disorders take antidepressant and antianxiety medications to combat their condition. By definition, a disorder is something that would be

considered less than normal functioning. So, taking selective serotonin reuptake inhibitors, SSRIs, to alter the brain's chemistry would be a treatment. Another example could be that as men age, their testosterone decreases, leading to overall sexual difficulty/dysfunction. This is normal functioning. Providing these men with medication to increase their testosterone levels would qualify as an enhancement. Both of the mentioned examples are accepted and normalized in society. Both medications have their own set of potential, adverse side effects, but one is a treatment, and the other is an enhancement.

Androgenic-anabolic steroids, for instance, are appropriately prescribed for medical conditions. The National Institute of Drug Abuse (2018, "Anabolic Steroids") claims, "Health care providers can prescribe [these] steroids to treat hormonal issues [. Androgenic-anabolic] steroids can also treat diseases that cause muscle loss, such as cancer and AIDS." In these situations, the drug is used to *treat* a medical issue. When bodybuilders use it "to boost performance" or to augment muscular size, their purpose is to *enhance* beyond the normal baseline. Prescribed stimulants, like different types of amphetamines, have medical purposes.

Another example is the use of Adderall, a complex of dextroamphetamine and amphetamine used to *treat* lack of concentration and focus in people with Attention Deficit Hyperactivity Disorder (ADHD) (National Institute of Drug Abuse, 2018, "Prescription Stimulants"). Severely narcoleptic patients have serious issues remaining awake throughout the day, so they take prescribed stimulants to *treat* their abnormal, episodic sleep throughout the day. Bodybuilders take the same drugs to *enhance* their energy in the gym and to *increase* fat loss. As mentioned in section 2.4.2, when these drugs are used for enhancement purposes, a variety of health complications are likely to follow. The body has a set level of normal functioning, and pushing it passed this level seems to do more physiologic harm than good. Thus, enhancements,

including PEDs, should be regulated and administered by medical personnel to ensure the safety of the public while maintaining the freedom for people to alter their body in their chosen manner.

3.3. Harm to user

3.3.1. Is banning doping paternalistic?

Even though it has been determined that inappropriate drug use, or doping, is harmful to its users, banning this type of usage is "paternalistic" and "unwarranted" (Holowchak & Todd, 2010, p. 208). In other words, it is more immoral to tell rational adults what to do as if they were children (paternalism) than to allow doping. From an ethical perspective, paternalistic practices are acceptable when (a) the individual is not a rational adult and/or (b) the individual is not well-informed on the particular practice.

However, today, it is commonly assumed that users are both rational and well-informed on the potential negative effects of drug usage. This is why Holowchak and Todd (2010) claim that banning doping is paternalistic and must be rejected on moral grounds. However, this is not necessarily the case. Pope et al. (2014) introduce the fact that PED usage is a public health crisis and associates this with the idea that the public is ill-informed of the potentially adverse effects of using these drugs inappropriately. They analyze why the adverse health effects of doping are not as well known by the public as expected. One reason could be that the majority of information in mass media regarding PED usage is about elite athletes, and the focus is on the competitive advantage that these athletes gain from the drug (Pope et al., 2014, p. 350).

Another reason that users may not be as well-informed as commonly assumed is that controlled studies on the effects of doping in people are nonexistent. These scientific experiments cannot happen because it is unethical to knowingly put someone in a potentially harmful trial. Illicit PED usage did not popularize until the end of the 20th century. Thus, long-

term health issues caused by the usage of PEDs is not well-known nor publicized (Pope et al., 2014, p. 351). Finally, statistics regarding PED usage in the amateur competitive or non-competitive and nonathletic groups of people are most likely undervalued because doping practices are generally kept covert (Pope et al., 2014, p. 352). In the case of PED usage, paternalist interventions are morally acceptable as individuals do not have all the information regarding its effects.

3.3.2. Harmful practice

As noted in section 2.4, using drugs that were originally intended to treat medical conditions to enhance performance comes with the potential to receive a list of adverse health effects. Thus, PED usage is considered a harmful practice. However, there are plenty of harmful practices included in sport already. So, banning PED usage because it is a harmful practice that could be considered unjustified (Holowchak & Todd, 2010, p. 209). For instance, physical harm is almost guaranteed in any type of martial arts as the purpose of the sport is to physically harm the opponent. Additionally, even with safety gear, any type of tackling sport – American football, ice hockey, lacrosse, etc. – can be harmful.

Nonetheless, the ruling bodies of these sports provide rules to limit physical harm as much as possible. This technique of improving athlete safety is not as simple to do for drug usage. Incorporating rules to regulate drug usage and providing medical personnel to monitor the athlete's health status makes the practice safer. However, pushing the body beyond normal functioning is never a safe practice. Restricting drug usage for only medically necessary conditions would be the only way to limit physical harm for this practice for amateur athletes.

On the other hand, some view PED usage as a harmful practice for amateur athletes but not for professional athletes. Many coaches and athletic trainers had the idea that "many pros are drugged ... but we don't drug amateurs" (Hoberman, 2005, pp.183-184). Professional athletes can generally use PEDs in a less medically harmful manner. They have a full team of medical personnel monitoring their health. Thus, the drugs come from a safer source, are more safely administered, and the athletes are well monitored to prevent potential negative health effects. Amateur athletes do not have any type of medical staff providing the same services, so the drug comes from an unregulated source in which quality is questionable, is self-administered, and administered without medical supervision. This difference demonstrates the significantly higher risk of amateur athletes receiving the life-altering adverse effects when compared to professional athletes. Just as some sports use rules and special equipment to limit physical harm, professional athletes have full medical staffs limiting the physical harm caused by the drugs. Amateur athletes do not have this benefit. Therefore, the only way to limit physical harm is to ban PED usage.

3.3.3. Harm related to the prohibition of PEDs

In terms of health and safety of the individual, banning the performance-enhancing drugs "carries its own intrinsic harms" (Savulescu, Foddy, & Clayton, 2004, p. 669). In the 1920s, the U.S. government attempted to reduce alcohol consumption by criminalizing it, but the Prohibition of Alcohol actually had the opposite effect – "increased [alcohol] consumption" (Savulescu et al., 2004, p. 669). The same thing could happen from banning certain drugs for performance-enhancing purposes. Doping will never completely cease. So, banning it will only lead users into black markets that "supply a product that is by definition unregulated, meaning that the use is unregulated and the safety of the product is questionable" (Savulescu et al., 2004,

p. 669). A similar occurrence has already with other practices. For instance, abortions were not legalized federally until the U.S. Supreme Court's 1973 Roe v. Wade decision. Tyrer (1985) determined that over 100 women died annually before 1970 because many illegal abortions "were performed by unskilled practitioners in unsafe settings [using] ineffective or unsafe methods" (p. 24). By criminalizing the practice, there was no regulation on the abortion services provided to women, leading to large annual female mortality rate. The same phenomenon currently happens in terms of illicit drug usage (Savulescu et al., 2004, p. 669). Allowing people to dope in sports would provide federal government regulations. So, at least, athletes would obtain the drugs from safe sources and use them in the safest possible way.

3.4. Harm to other athletes

Another argument for banning drugs from sport relates to the harm to other athletes. Within this argument, there are two potential scenarios: (a) to allow doping or (b) to ban doping. In the first scenario, athletes who want to dope are allowed to use drugs. Thus, the other athletes, who do not want to dope, must decide whether they will take drugs, too. If the latter use drugs, they risk the same potentially negative health issues as the former. For if they do not use the drugs, they risk not performing at the same level as those who do. A prime example of this is the 2014 Winter Olympic Games in Sochi, Russia, regarding the state-sponsored doping of the Russian competitors (Ruiz, 2017). Prior to the revocation of some medals, Russia won the highest number of medals, 33, during that year's Olympic Games. This historical event demonstrates the clear competitive advantage that PED users have in sports. The other athletes in those games supposedly did not use PEDs and did not win as many medals (Ruiz, 2017). If

doping in sports is allowed, the other athletes are basically guaranteed to be harmed whether it is from negative drug-related side effects or being at a competitive disadvantage.

The second scenario is if doping in sports is banned. If some athletes decide to partake in the drug usage, those who dope risk the negative physiologic effects of the drugs and risk receiving a penalty for being caught using the drug. Furthermore, if they decide not to dope, they risk being at a competitive disadvantage from drug users who are not caught doping.

3.5. The spirit of sport

Sports are said to have an intrinsic value, which is referred to as the "spirit of sport." The World Anti-Doping Agency (WADA) defines the "spirit of sport" as

the celebration of the human spirit, body, and mind" and lists values that it associates with this – i.e. "ethics, fair play, honesty, health, excellence in performance, character, education, fun, joy, teamwork, dedication, commitment, respect for rules and laws, respect for self and other participants, courage, community and solidarity (as cited by Savulescu et al., 2004, p. 666).

Through this interpretation of the "spirit of sport," performance-enhancing drugs conflict with some of the values. In terms of fair play, drug-usage has been determined to be an illegitimate source of inequality in sport, so it interferes with this value. The rules in sport and the law currently do not allow PED usage, so it conflicts with "respect for rules and laws." Since the practice is banned, athletes use these drugs in secret, so this conflicts with the value of "honesty." Finally, as the harms to the user and harms to the other athletes have already been covered, these interfere with the values of "health" and "respect for self and other participants."

WADA promotes and enforces anti-doping policies in sports to maintain this "spirit of sport" and to promote its values through sport.

3.6. Harms to society

Currently, two common expectations are placed on athletes. On the one hand, some people expect them to "preserve rather than augment the selves they already have." On the other hand, they are regarded as "special beings whose potential should be realized by any means that is available to them" (Hoberman, 2005, p. 214). These expectations can be related to people's attitude towards professional and amateur athletes. In the 1950s, society separated the "drug-free (natural) amateurs" from the "professional (superhuman) athletes." The informed population knew about the doping in the professional athlete world, but since this group was seen as a part of higher social status, they were exempt from the "ethical standards" of amateurs (Hoberman, 2005). Doping was seen as "part of the job" of professional athletes. In contrast, since the amateur athletes did not receive any financial compensation for their athletic performance, people assumed that they did not need to take drugs. Nonetheless, the belief that professional athletes dope is harmful to society because it is now assumed that people must dope in order to succeed in professional athletics.

This view of amateur athletes is prevalent nowadays. Amateur athletes are assumed to have a pure mindset about the sport because they supposedly play the sport for the intrinsic value of sport described by WADA – the "spirit of sport." Professional athletes receive the extrinsic value of income to influence their preparation for competitive events. Competing in sporting events is a professional athlete's job, i.e., how they make their livelihood, and their performance is directly connected to their income. Their reasoning to succeed has a more significant impact

on their life than that of an amateur athlete. Thus, PED usage is more justified in the case of professional athletes. However, performance-enhancing drugs are banned from professional sports.

Another argument of the harm to society relates to athletes' role-modeling character. Athletes are generally considered role models for adolescents and even adults., So, by publicly claiming that their daily regimen includes the use of illicit drugs, they are promoting an unsafe practice. Older adolescents and adults can be influenced by their athletic role models.

Nonetheless, Buckley, et al. (1988, p. 3442) determined that about half of the 12-grade male students of over 6500 individuals from 46 schools have used androgenic-anabolic steroids at some point in their lives. From this population of users, almost 50% of them used the drugs "to improve athletic performance" (Buckley et al., 1988, p. 3443). From this information, it can be assumed that the idea of using AASs to enhance athletic performance is derived from mass media on professional athletes. This demonstrates that the practices followed by professional athletes affect the practices followed by amateur athletes and the general population. In order to dissuade drug usage, the association between sports and drugs need to dissipate.

3.7. Cheating and competitive fairness

Holowchak and Todd (2010) describe the argument that doping in sports is cheating as "uninteresting and unveiling." It is considered cheating merely because it is against the rules. Obviously, breaking the rules should be dissuaded but not necessarily banned. Certain events in sports that are against the rules make the sport more enjoyable to watch (Holowchak & Todd, 2010). One example of this includes fighting in ice hockey. While the athletes do not connect this action to entertainment value at the moment, some could argue that the physical altercations

that occur in ice hockey provide additional entertainment. The National Hockey League, the NHL, has a rule against "fisticuffs," in which penalties are in place, but the action is not completely banned from the game (Flanagan, 2017).

The competitive aspect of sports requires the implementation of fairness, and drug usage in sports is an unfair advantage. The idea of "unfair advantage" elicits a more specific requirement between opposing athletes in competition – equality among athletes (Holowchak & Todd, 2010, p. 207). Holowchak and Todd (2010, p. 207) explain that there are inequalities in sports that cannot and must not be removed: "genetic endowment, training, skill, [and] determination." All of the mentioned inequalities would not and should not be regulated, for they are essential to sports. Based on Holowchak and Todd's (2010) argument, if all athletes were of equal genetics, training skill, and determination, which would be an impossible phenomenon, there would be no one to win or lose the competition. Thus, claiming that doping in sports gives certain players an unfair advantage is not a strong argument as licit inequalities among athletes already exists (Holowchak & Todd, 2010, p. 206-207). However, this is a weak argument because sport can maintain fairness while allowing inequality of legitimate sources to good performance – i.e. "genetic endowment, training, skill, [and] determination" (Holowchak & Todd, p. 207). These sources of good performance should not be equal to ensure that competition remains possible in sport. Drug usage, on the other hand, is an illegitimate source to exceptional performance because not all athletes have the means to acquire the drugs, and the extreme health risks associated with these drugs is a legitimate reason as not to want to partake in the practice.

4. Ethical Analysis of Doping in Amateur Bodybuilding

As stated in section 3.1., drug use in sport must be ethically assessed by attending to the specific nature of each sport. Bodybuilding differs from other sports in that its competitive portion consists of little functional performance. The sport consists of training the body in a way that will produce the most muscular development and showcasing the body in front of a panel of judges via different poses. The scoring in the sports is based on cosmetic traits: muscular size, definition, proportion, symmetry, etc. The primarily aesthetic purpose to the sport complicates the ethics behind drug usage in it, and since some people dispute the idea that it is not a sport, there is little literature regarding the ethics of doping in bodybuilding in general. To complicate the issue further, amateur bodybuilders, among whom drug use is widespread, do not receive payment for their performances, adding another element to the debate. With regards to doping in the amateur bodybuilding community, the ethical arguments consist of fairness, harm to the user, other athletes and society, and the intrinsic nature of the sport itself. This section explains the additional arguments of doping in sports but with relevance specifically to amateur competitive bodybuilding.

4.1. Fairness

Fairness is required for any competitive sport, and amateur competitive bodybuilding is not an exception. Differentiating between legitimate and illegitimate sources of inequality helps determine what should be allowed, banned, penalized and rewarded to maintain fairness in sport. If illegitimate sources of inequalities, i.e., unfair advantages, are allowed in sport, the significance of victory is diminished. Since the practice of using PEDs is illegal, bodybuilders must go through black market methods to obtain the drugs. Since the product is unregulated,

sellers can inflate the cost of PEDs without risking a loss in profit. Criminal sellers entirely determine the pricing and quality of the substance. These expensive drugs can potentially augment muscular development, and put their users at an unfair advantage. As stated in section 2.3, amateur bodybuilding competitors do not receive money for their performances. The only income these competitors receive is obtained from external sources like jobs, savings, and inheritance etc. Wealthy participants already have legitimate advantages – the means to hire better trainers, gain membership to a higher quality gym, obtain personalized, muscle-building meal plans, and take higher quality nutritional supplements. Now, their money allows them to easily afford and access PEDs. Competitions become unfair when they only cater to the rich. While it is not possible to regulate wealth among the competitors, institutions (like the IFBB) can reinforce robust policies to regulate PED usage.

4.2. Medical misinformation

Performance-enhancing drug use is highly prevalent in sports. As discussed, one reason for this is that adults may not be as informed as expected, warranting more "paternalistic" practices in regulating sports. Paternalism requires that the user is not autonomous, that is, that individuals are (a) not a rational adult and/or (b) not well-informed on the practice. In bodybuilding, the medical staff provided to professional athletes are well versed in the effects of the drugs that they are prescribing, so they can inform the rational adult, the professional bodybuilder, on the effects of the drugs.

Amateur competitive bodybuilders do not have as much knowledge on these drugs. Also, these athletes maintain the same training and diet mindset as professional bodybuilders. Thus, they also have the drive to win bodybuilding competitions, leading to the same desire to

participate in doping. However, as they lack the financed medical services provided in professional sports, they do not have access to personalized information regarding the drugs and must find such information on their own. However, amateur athletes are vulnerable in this sense. As PED usage in bodybuilding is relatively common, the practice is usually perceived as safe, eliminating the need to research the effects of the drugs. Additionally, amateur bodybuilders do not necessarily know how to determine the credibility of a source, so they probably will find more invalid information associated with the drugs than valid information. These two occurrences discredit autonomy in amateur bodybuilding, allowing and encouraging paternalistic bans on doping in amateur competitive bodybuilding.

4.3. Intrinsic nature of bodybuilding

As established in section 2.2, bodybuilding is a sport, requiring that it meets the necessary criteria for the "spirit of sport." However, the practice under the category of bodybuilding requires that it also respects and supports its foundation and purpose. As discussed, Eugen Sandow, the man notable for introducing modern-day bodybuilding, began the sport on the foundation of pursuing a Greek statuesque appearance, his view of a "healthy body." The purpose of competitive bodybuilding is to seek a body that represents overall muscular development. Performance-enhancing drugs interfere more significantly intrinsically with bodybuilding than other sports because their usage contradicts with the sport's foundation of exhibiting a "healthy body." Drugs used for supraphysiologic effects are scientifically connected to a variety of adverse effects as seen in section 2.4. Because this contradicts with the pursuit of a "healthy body," doping should not play a part in the sport of bodybuilding.

4.4. Current issues with the allowance of doping and a proposed solution

Currently, doping is allowed in some amateur bodybuilding competitions, while not in others. In natural competitions, competitors are tested via urinalyses and polygraphed questioning. In non-testing competitions, the doping practices are not regulated by the competition's ruling body, allowing drug usage among competitors. The non-testing competitions do not explicitly state that they follow WADA anti-doping policies. So, competitors are allowed to utilize drugs to augment muscularity and improve training. Theoretically, this division satisfies both anti-dopers and pro-dopers. However, from a public health standpoint, non-testing competitions are highly problematic because they insinuate that there is absolutely no regulation of drug usage. As claimed in section 4.2, medical misinformation is prevalent in the amateur athletic community causing unnecessary and excessive harm to the user.

Also, as stated in section 3.6, athletes can have a particularly large impact on society. The representation of the sport in mass media can promote negative behaviors, such as drug usage, in society. Liokaftos claims, "the drug-enhanced, extreme built body has become emblematic of the professionalisation of bodybuilding" (2018, p. 48). Currently, when people want to build a muscular physique, their perception is that the only method is through performance-enhancing drugs. This depiction of the sport contradicts its original purpose. Historically, Eugen Sandow, the founder of modern-day bodybuilding, pursued a proportionate and defined muscular physique to represent a "healthy body" (Crompton, 2011, p. 39-40). He advertised his methods to promote this ideal of a "healthy body." All the media that misrepresents bodybuilding as drug-driven sport conflicts with the bodybuilding foundation of seeking and representing a "healthy body." Athletes can impact society, and promoting unsafe drug usage is a negative impact on society that creates a public health crisis.

People have the moral responsibility to ensure the safety of the general public as well as our athletes. After analyzing the ethical arguments regarding doping in amateur competitive bodybuilding, the solution is to ban doping practices in all amateur competitive bodybuilding events and strictly enforce drug testing protocols with which are difficult to tamper. This will ensure the safety of the competitors while maintaining the sport's fairness and intrinsic nature. As currently used in natural bodybuilding competitions, all amateur bodybuilding competitions should include regular and random urinalysis tests throughout the year in addition to polygraphed interviews. The accuracy of these tests is relatively high when they are done in theoretically perfect conditions, but as explained by Jaffee, et al. (2007), there are multiple, easily accessible methods used to tamper with urinalysis testing. Thus, other methods of determining drug usage should be researched and implemented to ensure general safety and fairness.

5. Conclusion

The ethics behind doping in sports has been debated in the academic literature, but there is relatively little literature regarding the ethics of doping in bodybuilding. The thesis explores this issue in three sections: a historical overview of bodybuilding, the ethical arguments associated with drug usage in sports, and an ethical analysis of doping practices in amateur competitive bodybuilding.

In ancient Greece, men publicly displayed their physiques during training to demonstrate their patriotism and strength, but a similar practice is not seen until the early 20th century. Eugen Sandow, a strongman at the time, trained for overall muscular development, while most strongmen focused solely on strength. With his gained fame and published knowledge, he founded modern-day bodybuilding as a sport. However, since its founding, the argument as to whether bodybuilding is a sport has been highly disputed and is represented through these two views on the definition of sport – the phenomenological perspective and Pierre de Coubertin's perspective. To continue the description of bodybuilding, the thesis explains the distinguishing characteristics of amateur noncompetitive, amateur competitive, and professional competitive sports with a focus on bodybuilding – financial compensation, age of athlete, and purpose in participating in the sport. Ending the overview of bodybuilding, the thesis outlines the doping practices of bodybuilders, including the uses, performance-enhancing effects, adverse health effects, and prevalence of the following drugs: androgenic-anabolic steroids, human growth hormone/IGF-1, diuretics, and gonadotropin.

After determining that significant doping practices occur in bodybuilding, the thesis analyzes the ethical arguments regarding PED usage in sports. Starting with an analysis of treatments and enhancements, it is determined that artificial means of performance enhancement

should not be employed in sport, for it causes physiologic harm. The next section explains that the physiologic research defining the effects of some PEDs is still incomplete, so paternalistic interventions to reduce drug usage are warranted at this time. The following section has explains how physical harm differs between the drug and non-drug harmful practices. It has been argued that, since amateur athletes do not have provided medical staffs, doping practices cannot be made into a safer practice for them. The thesis continues with an exploration of potentially negative effects that could arise from the prohibition of the drugs – i.e., unsafe usage, low-quality, unregulated substances, and the potential for increased usage.

The next section outlines the harms to other athletes in relation to whether PEDs are allowed or banned. The three risks discussed include the risk of adverse health effects from using drugs, the risk of having an unfair disadvantage from not using drugs, and the risk of getting caught using the drugs. Following this, an analysis of WADA's definition of the "spirit of sport" and how doping practices interfere with it is provided. Focusing on two values of the "spirit of sport," respect for the rules and fairness, the thesis analyzes cheating and unfair advantages in sports. The section questions how the severity of the consequence for breaking a rule, or cheating, is determined. In terms of unfair advantages, there are already plenty in sports, but there is a distinction between legitimate and illegitimate advantages. While legitimate advantages are allowed, illegitimate advantages should be banned. Nonetheless, it is concluded that doping is an illegitimate advantage in sports.

The last section of the thesis analyzes the ethics of doping in amateur bodybuilding competitions. Starting with a quick overview of amateur competitive bodybuilding, the section considers arguments related to fairness, medical misinformation, the intrinsic nature of bodybuilding, and current issues with the allowance of doping in bodybuilding. In terms of

amateur competitive bodybuilding, doping practices are significantly dependent on the athlete's wealth, so doping is considered unfair because it increases the already high number of advantages wealthy competitors have. Also, medical misinformation is problematic among amateur athletes because there is no provided doctor leading them in the right direction for safe usage. With all the low-quality information on the internet, it is unlikely that amateur athletes will have the autonomy required to determine whether doping is a safe practice and how to use drugs safely. Based on these analyses, the thesis has concluded that the best solution is to ban all doping and strictly enforce/regulate drug testing methods in bodybuilding.

Generalizing the ethics of doping in all sports is too difficult to accomplish. While all sports tend to share a common set of characteristics, there are defining features of individual sports that can change the ethics for particular sports. The defining feature in bodybuilding is the focus on the aesthetics of strength, i.e. muscularity, as opposed to the functions of strength. As it started with Eugen Sandow, the muscular body of a bodybuilder was supposed to reflect a healthy body, but with the promotion of the "win-at-all-cost" mentality, the foundational purpose of the sport has been tarnished by PEDs.

The sport itself does not have a skillful activity in its competitions, so the main sportive aspect is the preparation/training prior to the event. During the event, the competitors display the results of the hard work they accomplished. With the allowance of drugs, the perception of the muscular body shifts from impressive dedication to risky drug use. Currently, drug usage in bodybuilding is so well-known that the assumption is that most if not all bodybuilders dope. In other words, regardless of their preparation, the credit is given to the drugs as opposed to their training and strict dieting. Finally, the amateur athletes are generally newer in the sport and will succumb to the pressures to dope as it is the expectation that most bodybuilders dope. The

inclusion of doping in bodybuilding does not only affect the users, it affects the other athletes and society's view of the sport poorly. The best way to resolve this is to strictly ban doping in all bodybuilding competitions and enforce drug testing policies and protocols. The sport needs to return to its foundational purpose of achieving a "healthy body."

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 - Penn State University Health Services PT Volunteer September 2017-May 2018 Implemented physical therapy exercise regimen and sanitized examination rooms and equipment
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 - Rules and Regulations Committee Member for THON 2017 August 2016-May 2017 Ensured the safety and security of all THON participants and committee members a 46 hour "No Sitting, No Sleeping" dance marathon that raised over \$10,000,000 for research and treatment of pediatric cancer.
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