

ATTAINING OLYMPUS: A CRITICAL ANALYSIS OF PERFORMANCE-ENHANCING DRUG LAW AND POLICY FOR THE 21ST CENTURY

ALEXANDRA M. FRANCO¹

ABSTRACT

While high-profile doping scandals in sports always garner attention, the public discussion about the use of performance-enhancing substances ignores the growing social movement towards enhancement outside of sports. This Article discusses the flaws in the ethical origins and justifications for modern anti-doping law and policy. It analyzes the issues in the current regulatory scheme through its application to different sports, such as cycling and bodybuilding. The Article then juxtaposes those issues to general anti-drug law applicable to non-athletes seeking enhancement, such as students and professionals. The Article posits that the current regulatory scheme is harmful not only to athletes but also to people in general—specifically to their psychological well-being—because it derives from a double social morality that simultaneously shuns and encourages the use of performance-enhancing drugs.

I. INTRODUCTION

“Everybody is going to do what they do.” — Phil Heath, Mr. Olympia champion.²

The relationship between performance-enhancing drugs and American society has been problematic for the past several decades. High-profile doping scandals regularly garner media attention—for example,

1. © Alexandra M. Franco, J.D. The Author is an Affiliated Scholar at the Institute for Science, Law and Technology at IIT Chicago-Kent College of Law. She previously worked as a Judicial Law Clerk for the Honorable Franklin U. Valderrama in the Circuit Court of Cook County, Illinois (the views expressed in this Article are solely those of the Author, and do not represent those of Equal Justice Works or Cook County). The Author would like to send a special thank you to Lori Andrews and to Judge Valderrama for their unconditional support. The Author would also like to thank Christopher Schmidt for his input, Josh Winters for his encouragement, and Gabriel M. Franco for teaching her to love knowledge and fitness.

2. John Branch, *No One Is Looking at This Headline*, N.Y. TIMES (Oct. 28, 2016), <https://www.nytimes.com/2016/10/29/sports/phil-heath-mr-olympia-bodybuilder.html>.

every four years when the Summer Olympic Games take place.³ Olympic athletes who are caught doping are shunned and stripped of their medals in disgrace.⁴ Famous athletes—including Barry Bonds,⁵ Lance Armstrong,⁶ and Maria Sharapova,⁷ to name a few—have been engulfed in doping controversies that received widespread media coverage and public condemnation.⁸ Naturally, the public discussion about the use of performance-enhancing substances has focused largely on the realm of professional sports. Unfortunately, this important discussion rarely involves what everyday people outside of professional athletics are willing to do to gain an edge in an increasingly competitive world.

The relevance of this often-overlooked inquiry has increased in light of the economic and social changes that the country is experiencing.⁹ As the second decade of the twenty-first century draws to a close, extreme competitiveness in the job market and economic inequality are rising sharply.¹⁰ The rising competition for a stable economic position evidenced in today's economy has prompted scholars and researchers to document what has become known as the disappearance of America's middle-class.¹¹ "Job polarization,"¹² artificial intelligence,¹³ and the forecasts warning of the imminent disappearance of jobs due to automation further contribute to people's anxiety about remaining competitive in the job market.¹⁴ As a result of this phenomenon, some members of a dying middle class¹⁵ have begun to

3. See, e.g., Motez Bishara, *Russian Doping: 'An Unprecedented Attack on the Integrity of Sport & the Olympic Games,'* CNN (July 21, 2016), <http://edition.cnn.com/2016/07/18/sport/russia-doping-sochi-2014-olympic-games-rio-2016/index.html>.

4. See, e.g., BBC Sport, *Doping in Sport: Three More Athletes Stripped of Olympic Medals* (Apr. 5, 2017), <http://www.bbc.com/sport/39506574>.

5. ESPN, *Barry Bonds Steroids Timeline* (Dec. 7, 2007), <http://www.espn.com/mlb/news/story?id=3113127>.

6. See William Forthneringham, *Timeline: Lance Armstrong's Journey from Deity to Disgrace*, GUARDIAN (Mar. 8, 2015), <https://www.theguardian.com/sport/2015/mar/09/lance-armstrong-cycling-doping-scandal>.

7. See Christopher Clarey & Mike Tierney, *Maria Sharapova Admits Taking Meldonium, Drug Newly Banned by Tennis*, N. Y. TIMES (Mar. 7, 2016), <https://www.nytimes.com/2016/03/08/sports/tennis/maria-sharapova-failed-drug-test.html>.

8. See, e.g., Cameron Tomarchio, *World Reacts to Maria Sharapova Bombshell*, NEWS.COM.AU (Mar. 8, 2016), <http://www.news.com.au/sport/tennis/world-reacts-to-maria-sharapova-bombshell/news-story/83b5ba270fe024f87e586de0372e0724>.

9. See generally PETER TEMIN, *THE VANISHING MIDDLE CLASS; PREJUDICE AND POWER IN A DUAL ECONOMY* (2017).

10. *Id.*

11. *Id.* See also Pew Research Center, *America's Shrinking Middle Class: A Close Look at Changes Within Metropolitan Areas* (May 11, 2016), <http://www.pewsocialtrends.org/2016/05/11/americas-shrinking-middle-class-a-close-look-at-changes-within-metropolitan-areas/>.

12. *Automation and Anxiety*, ECONOMIST (June 25, 2016), <https://www.economist.com/news/special-report/21700758-will-smarter-machines-cause-mass-unemployment-automation-and-anxiety>.

13. See, e.g., Steve Lohr, *A.I. Is Doing Legal Work. But It Won't Replace Lawyers, Yet*, N.Y. TIMES (Mar. 19, 2017), <https://www.nytimes.com/2017/03/19/technology/lawyers-artificial-intelligence.html>.

14. See EXECUTIVE OFFICE OF THE PRESIDENT, *ARTIFICIAL INTELLIGENCE, AUTOMATION, AND THE ECONOMY* (Dec. 2016), <https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/ArtificialIntelligenceAutomation-Economy.PDF>.

15. See Pew Research Center, *supra* note 11.

realize that hard work¹⁶ alone is no longer a safe path to the American Dream¹⁷ and are taking a different route.

A distinctive social trend towards “enhancement” has emerged. Teenagers, young adults,¹⁸ and professionals¹⁹ turn to “smart drugs”²⁰ to cope in increasingly competitive environments, hoping to improve their efficiency.²¹ People also turn to substances such as over-the-counter nutritional supplements²² and nootropics,²³ hoping that these substances will improve performance in their work life.²⁴ Some people even upload their genetic sequence to online applications that provide them individualized recommendations for certain supplements to take to optimize performance.²⁵ In late 2017, Josiah Zayner reportedly became the first person to attempt a “DIY gene editing” procedure, which he is making available to others.²⁶ Other more subtle means of means improving performance, such as personal

16. *Middle of the Class: Equality of Opportunity Is Under Threat*, ECONOMIST (July 14, 2005), <http://www.economist.com/node/4148885>.

17. Chris Matthews, *The Death of the Middle Class Is Worse Than You Think*, FORTUNE (July 13, 2016), <http://fortune.com/2016/07/13/middle-class-death/>.

18. ALAN SCHWARZ, ADHD NATION: CHILDREN, DOCTORS, BIG PHARMA, AND THE MAKING OF AN AMERICAN EPIDEMIC 84–93, 164–66, 223–25 (2016).

19. *Id.* at 224–25. Schwarz notes the example of a lawyer obtaining a prescription for Adderall to be more efficient at his job: “One Houston attorney counted thirty-five friends in his firm and across the city who take Adderall regularly to bill hundreds of extra hours in the race for partnership. He recalled the conversation with a psychiatrist that got him his regular supply: ‘I pretty much just said, “Look, I’m a lawyer, I work a lot of hours and I feel like I’m falling behind and can’t concentrate. I need some help.” So he gave me a script of Adderall, sixty milligrams a day.’”

20. The term “smart drugs” refers to drugs believed to enhance cognitive performance. See Michelle Trudeau, *More Students Turning Illegally to ‘Smart’ Drugs*, NPR (Feb. 5, 2009), <http://www.npr.org/templates/story/story.php?storyId=100254163>.

21. See generally SCHWARZ, *supra* note 18.

22. Some of these supplements are made from vitamins and substances derived from plants. See e.g., Product Information Page for Focus Factor Dietary Supplement Tablets, WALGREENS, <https://www.walgreens.com/> (search “focus factor dietary supplement tablets” in the keyword field and select resulting item).

23. See Olga Khazan, *The Brain Bro*, ATLANTIC (Oct. 2016), <https://www.theatlantic.com/magazine/archive/2016/10/the-brain-bro/497546/>. Nootropics are described as “designer” substances which some believe have cognitive enhancement abilities. *Id.*

24. See *supra* notes 18, 19.

25. Kaleigh Rogers, *The Nootropics Community Is Using 23andMe to match Smart Drugs to Their DNA*, VICE (Oct. 25, 2017), https://motherboard.vice.com/en_us/article/9kqywy/the-nootropics-community-is-using-23andme-genetic-testing-to-match-smart-drugs-to-their-dna-optimized-quantified-self.

26. Stephanie M. Lee, *This Guy Says He’s the First Person to Attempt Editing His DNA with CRISPR*, BUZZFEEDNEWS (Oct. 14, 2017), https://www.buzzfeed.com/stephaniemlee/this-biohacker-wants-to-edit-his-own-dna?utm_term=.hsGlZGjeE#.voGLjg0aX. Josiah Zayner reportedly sells DNA-editing “kits” which he claims aid in muscle growth. *Id.* As of late, however, he has regretted his actions because he believes that “somebody is going to get hurt eventually” with the use of untested genetic editing technology. Sarah Zhang, *A Biohacker Regrets Publicly Injecting Himself with CRISPR*, ATLANTIC (Feb. 20, 2018), <https://www.theatlantic.com/science/archive/2018/02/biohacking-stunts-crispr/553511/>.

electronic devices,²⁷ hypnosis,²⁸ yoga,²⁹ and meditation,³⁰ have become commonplace in a world filled with people desperately racing to an increasingly narrow top.

Despite this embrace of “enhancement,” the modern social values glorifying achievement through “natural” means and “hard work” are still pervasive.³¹ These values originated in part from anti-doping policies in professional sports,³² and in part from the economic developments of post-World War II America.³³ On one hand, a booming post-war economy with an abundance of middle-class jobs encouraged people to believe that success was available to those who worked hard for it.³⁴ On the other hand, the rise of strict anti-doping policies in sports contributed in creating the American mantra that hard work is the way—the only way—to success.³⁵ But, what are the consequences of this social morality on a society that is turning to enhancement due to rising economic inequality and increasing competition?

The literature addressing drug law and policy is extensive.³⁶ However, most of the scholarly discussion focuses on the issues arising from the

27. For example, the Pavlok electronic wristband purportedly enables people to stop engaging in bad habits, such as being distracted while at work. Pavlok, *Replace Bad Habits. Change Your Life*, <https://pavlok.com/>; see also Maneesh Sethi, *Pavlok: Boost Your Productivity* (Apr. 17, 2015), <https://pavlok.com/blog/boost-your-productivity/>.

28. See, e.g., Karsten Strauss, *Using Hypnosis to Be Better at Business*, FORBES (Nov. 6, 2014), <https://www.forbes.com/sites/karstenstrauss/2014/11/06/using-hypnosis-to-be-better-at-business/#28b34e685b7b>.

29. See, e.g., Shawn Achor & Michelle Gielan, *The Busier You Are, the More You Need Mindfulness*, HARVARD BUSINESS REVIEW (Dec. 18, 2015), <https://hbr.org/2015/12/the-busier-you-are-the-more-you-need-mindfulness>.

30. *Id.*

31. See, e.g., Suzanne Lucas, *How to Achieve the American Dream*, CBS (June 6, 2014), <http://www.cbsnews.com/news/how-to-revive-your-american-dream/>; See also Lauren Cassani Davis, *Do Americans Believe Hard Work Still Matters?*, ATLANTIC (Jan. 28, 2017), <https://www.theatlantic.com/business/archive/2016/01/american-dream-heartland-poll/431586/>.

32. See *infra* Part 3, Section A and accompanying notes.

33. See generally TEMIN, *supra* note 9.

34. See *Middle-Class Betrayal? Why Working Hard is No Longer Enough in America*, NBC NEWS (Mar. 16, 2015), <https://www.nbcnews.com/feature/in-plain-sight/middle-class-betrayal-why-working-hard-no-longer-enough-america-n291741>; Claire Suddath, *The Middle Class*, TIME (Feb. 27, 2009), <http://content.time.com/time/nation/article/0,8599,1882147,00.html>; Jim Tankersley, *‘I’m Working Really Hard but I’m Not Getting Ahead’: The New Middle Class Trap*, ATLANTIC (Sep. 27, 2012), <https://www.theatlantic.com/business/archive/2012/09/im-working-really-hard-but-im-not-getting-ahead-the-new-middle-class-trap/262912/>.

35. This “mantra” is indeed pervasive; it only takes a cursory review of popular articles in magazines and government websites to understand how deeply engrained the belief in “hard work” is in American society. See, e.g., Ruth Marlaire, *The Keys to Success: Hard Work, Perseverance and Patience*, NASA.GOV (Jan. 3, 2017), <https://www.nasa.gov/feature/ames/the-keys-to-success-hard-work-perseverance-and-patience>; Max Nisen, *16 People Who Worked Incredibly Hard to Succeed*, BUS. INSIDER (Sep. 5, 2012), <http://www.businessinsider.com/16-people-who-worked-incredibly-hard-to-succeed-2012-9>; Richard St. John, *Why It Pays to Work Hard*, TEDED (last visited Sep. 3, 2017), <https://ed.ted.com/lessons/richard-st-john-why-it-pays-to-work-hard#review>; Devin Thorpe, *Hard Work and Self-Discipline are Still the Keys to Success*, FORBES (Mar. 6, 2014), <https://www.forbes.com/sites/devinthorpe/2014/03/06/author-suggests-hard-work-and-self-discipline-are-keys-to-success/#3ba0685814c8>.

36. See, e.g., Adam Herschthal, *From Rats to Riches: How the Anabolic Steroid Control Act of 2004 Unjustly Punished the Gym Rat and How a New Prescription is the Road to Salvation*, 63 SYRACUSE L. REV. 437 (2013); Ryan J. McGrew, *Raising the Bar: Why the Anabolic Steroid Control Acts Should be Repealed and Replaced*, 15 HOUS. J. HEALTH L. & POL’Y 233, 234–35 (2015); Maxwell J. Mehlman,

current regulatory scheme applicable to performance-enhancing drugs in the sports context³⁷ and the general anti-drug law³⁸ and policy applicable to the general population.³⁹ Scholarly commentary focuses on issues such as the law and policy's unfairness as applied to different populations,⁴⁰ their lack of scientific evidentiary support,⁴¹ their failure to deter drug use,⁴² and the resulting harmful effects on people's health.⁴³ Other relevant scholarly discussions focus broadly on enhancement through various means⁴⁴ including drugs, and the philosophical arguments for⁴⁵ and against⁴⁶ enhancement.⁴⁷ However, the existing scholarly discussion lacks an in-depth analysis of the current regulatory scheme of performance-enhancing drugs. It fails to address the effects of these drugs on a society that increasingly embraces enhancement amidst drastic changes in the national economic landscape. Therefore, this Article undertakes a critical and interdisciplinary analysis of the regulation of performance-enhancing drugs, the origins and evolution of the current regulatory scheme, and the issues it presents in contemporary American society. Specifically, this Article addresses the issue of why the current laws and regulations applicable to performance-enhancing drugs are not only inefficient, but actually harmful to people and society in general in light of the increasing acceptance of enhancement.

However, since human enhancement is an expansive topic encompassing a multitude of mechanisms ranging from implants⁴⁸ to genetic engineering techniques,⁴⁹ this discussion will focus on the use of performance-enhancing substances. The first section of the Article sets forth the historical origins of what I call the "anti-enhancement narrative" in sports ethics, bioethics and the law. The second section identifies the issues that arise from the current regulatory scheme by evaluating its application to

Elizabeth Banger & Matthew M. Wright, *Doping in Sports and the Use of State Power*, 50 ST. LOUIS L. J. 15, 41 (2005).

37. See, e.g., FRANCIS FUKUYAMA, *OUR POSTHUMAN FUTURE: CONSEQUENCES OF THE BIOTECHNOLOGY REVOLUTION* (Farrar, Straus and Giroux 2002); JAMES HUGHES, *CITIZEN CYBORG: WHY DEMOCRATIC SOCIETIES MUST RESPOND TO THE REDESIGNED HUMAN OF THE FUTURE* 110 (Westview Press ed., 2004).

38. Such as Opioids, Marijuana, and hallucinogenic substances.

39. See, e.g., MICHELLE ALEXANDER, *THE NEW JIM CROW: MASS INCARCERATION IN THE AGE OF COLORBLINDNESS* (2012); DAN BAUM, *SMOKE AND MIRRORS; THE WAR ON DRUGS AND THE POLITICS OF FAILURE* (1996).

40. See generally BAUM, *supra* note 39.

41. *NUTRITIONAL SUPPLEMENTS IN SPORTS AND EXERCISE* 15 (Mike Greenwood et al. eds., Springer Int'l Pub. 2d ed. 2015) (2008); McGrew, *supra* note 36, at 234–35.

42. See McGrew, *supra* note 36, at 244.

43. *Id.* at 233.

44. See, e.g., MAXWELL MEHLMAN, *THE PRICE OF PERFECTION: INDIVIDUALISM AND SOCIETY IN THE ERA OF BIOMEDICAL ENHANCEMENT* 50, 123–25 (2009); HUGHES, *supra* note 37.

45. See, e.g., HUGHES, *supra* note 37.

46. See, e.g., FUKUYAMA, *supra* note 37.

47. See *supra* notes 36 and 37.

48. Hughes names cochlear implants and bionic eyes as examples of such technologies. HUGHES, *supra* note 37, at 17.

49. Author Henry Greely engages in a thorough discussion of the possibilities of genetic engineering for reproductive purposes, and how such technologies may enable parents to have genetically-superior children. HENRY GREELY, *THE END OF SEX AND THE FUTURE OF HUMAN REPRODUCTION* 178–87 (2016).

professional sports, particularly, its application in the sport of bodybuilding. The third section evaluates the issues identified in the second section as they arise in general society, considering people's changing attitudes and economic uncertainty. The last section proposes a modest first step in addressing the issues identified.

II. FUNDAMENTAL CONCEPTS

A discussion about enhancement, at the outset, must first address a critical question: What is "enhancement?" Whether someone or something is "enhanced," as opposed to "normal" or even "disabled," is a hotly-debated and exceedingly complex question. An example of this complexity is the case of athlete Oscar Pistorius.⁵⁰ Was Pistorius—the first double amputee allowed to compete in the Olympic Games⁵¹—disabled, normal, or enhanced?⁵² The International Association of Athletics Federations initially prohibited Pistorius from competing in the Olympics because, although he was a double amputee, it was believed that his Cheetah prosthesis gave him an "unfair advantage" over his competitors with natural legs.⁵³ Pistorius' example illustrates the difficulty in drawing a precise line between normalcy and "enhancement,"⁵⁴ as well as the difficulty in understanding fairness and unfairness in the context of performance enhancement.

While further discussion of the normalcy-enhancement distinction is outside the scope of this Article, for purposes of the present analysis, "enhancement" refers to any increase of average, baseline human capabilities.⁵⁵ Nevertheless, even accepting this definition of enhancement presents problems. For instance, to what extent is the use of substances to achieve enhancement unfair? If the term "substances" encompasses everything from food to coffee to amphetamines,⁵⁶ is the child who goes to school after having a healthy breakfast enhanced when compared to the child

50. Rose Eveleth, *Does Double-Amputee Oscar Pistorius Have an Unfair Advantage at the 2012 Olympic Games?*, SMITHSONIAN.COM (July 22, 2012), <https://www.smithsonianmag.com/summerolympics/does-double-amputee-oscar-pistorius-have-an-unfair-advantage-at-the-2012-olympic-games-2655123/>.

51. Alexis Shaw, *Pistorius, 25, is First Double-Amputee Sprinter to Compete in Olympic Games*, ABC NEWS (Aug. 4, 2012), <http://abcnews.go.com/Sports/oscar-pistorius-makes-history-double-amputee-sprinter-compete/story?id=16929845>.

52. Isabel Karpin & Roxanne Mykitiuk, *Going out on a Limb, Prosthetics, Normalcy and Disputing the Therapy/Enhancement Distinction*, 16 MED. L. REV. 413 (2008).

53. Eveleth, *supra* note 50.

54. See generally Karpin & Mykitiuk, *supra* note 52.

55. Such a definition is common in the bioethics community. For example, the President's Council on Bioethics, which served under the administration of George W. Bush, describes the therapy-enhancement distinction in the following terms: "'Therapy' . . . is the use of biotechnical power to treat individuals with known diseases, disabilities or impairments, in an attempt to restore them to a normal state of health and fitness. 'Enhancement,' by contrast, is the directed use of biotechnical power to alter, by direct intervention, not disease processes but the 'normal' workings of the human body and psyche, to augment or improve their native capacities and performances." THE PRESIDENT'S COUNCIL ON BIOETHICS, BEYOND THERAPY: BIOTECHNOLOGY AND THE PURSUIT OF HAPPINESS 13 (2003), https://biotech.law.lsu.edu/research/pbc/reports/beyondtherapy/beyond_therapy_final_report_pcbe.pdf.

56. The Merriam-Webster dictionary defines "Substance" in part as a "physical material from which something is made or which has a discrete existence" or a "matter of particular or definite chemical constitution[.]" Merriam Webster, *Definition of Substance*, <https://www.merriam-webster.com/dictionary/substance>. (last visited July 4, 2017).

who goes to school hungry?⁵⁷ Is the worker who drinks coffee at work to remain alert enhanced when compared to his co-worker who does not?⁵⁸ These two examples highlight the idea that even when drawing an arbitrary line of enhancement—as anything that enables a person to supersede his or her average, natural capabilities—it is hard to understand why some behaviors are considered enhancing and some are not.

One of the justifications for the prohibition of performance-enhancing substances in sports is fairness.⁵⁹ Sports ethics espouses the idea that performance-enhancing drugs give the user an unfair advantage,⁶⁰ in other words, that using them is cheating.⁶¹ However, as author Maxwell Mehlman notes, competitive sports are ridden with unfair advantages.⁶² For example, certain South American soccer teams from high-altitude cities have an inherent advantage when facing an opposing team from a low-altitude city.⁶³ The low-altitude team is likely to experience altitude sickness and perform

57. Children who do not have access to proper nutrition during the first five years of their lives suffer impairment in the development of their cognitive skills which will affect their performance in later years. Rhitu Chatterjee, *Kids Who Suffer Hunger in First Years Lag Behind Their Peers in School*, NPR (Mar. 23, 2017), <http://www.npr.org/sections/thesalt/2017/03/23/520997010/kids-who-suffer-hunger-in-first-years-lag-behind-their-peers-in-school>.

58. Caffeine was banned in the Olympics until 2004 and although no longer banned, it is still considered a performance-enhancing substance. Emma Cueto, *Can Olympic Athletes Have Caffeine? The World Anti-Doping Agency Lifted the Ban in 2004*, BUSTLE (Aug. 10, 2016), <https://www.bustle.com/articles/177984-can-olympic-athletes-have-caffeine-the-world-anti-doping-agency-lifted-the-ban-in-2004>. See also Bonnie DeSimone, *Caffeine—Once Banned or Restricted by International Sports Authorities—Has Been Given a New Lease on Life by the World Anti-Doping Agency*, CHI. TRIB. (Mar. 14, 2004), http://articles.chicagotribune.com/2004-03-14/sports/0403140386_1_caffeine-wada-international-sports-authorities.

59. See WORLD ANTI-DOPING AGENCY, WORLD ANTI-DOPING CODE 50 (2009), https://www.wada-ama.org/sites/default/files/resources/files/wada_anti-doping_code_2009_en_0.pdf.

60. Karpin & Mykitiuk, *supra* note 52.

61. See, e.g., Michael Dillingham, *Steroids, Sports and the Ethics of Winning*, MAKKULA CTR. FOR APPLIED ETHICS (Aug. 25, 2004), <https://www.scu.edu/ethics/focus-areas/bioethics/resources/steroids-sports-and-the-ethics-of-winning/>; Editorial, *Shutout in Cooperstown*, N.Y. TIMES (Jan. 10, 2016), <http://www.nytimes.com/2013/01/11/opinion/shutout-in-cooperstown.html?ref=barrybonds>.

62. See MEHLMAN, *supra* note 44, at 69 (citing Roger Gardner, *On Performance-Enhancing Substances and the Unfair Advantage Argument*, in PHIL. INQUIRY IN SPORT 222, 258 (Morgan & Meier ed., 1999)).

63. Although soccer is a very popular sport outside the United States, the altitude phenomenon is not well-known outside of South America, as European teams, for example, do not have the issue of host cities being located at very high altitudes. But it is understood that soccer teams from low-altitude cities in South America experience impaired performance when playing at higher altitudes. A recent example of the altitude issue came about during the *Copa Libertadores* quarter finals. Argentinean soccer team, River Plate—the team which was widely-favored to win—played the first of two games against Bolivian team Jorge Wilstermann—considered an underdog—in the city of Cochabamba, Bolivia where the Bolivian team beat River Plate three to zero. Cochabamba's elevation is 8,392 feet above sea level, whereas Buenos Aires—the native city of Argentinean River Plate—is a mere 82 feet above sea level. South American news outlets were quick to point out that altitude could have contributed to Jorge Wilstermann's win. Infobae Deportes, *Jorge Wilstermann Goleó a River Por Los Cuartos de la Libertadores* (Sep. 14, 2017), <https://www.infobae.com/deportes-2/2017/09/14/copa-libertadores-ida-de-cuartos-de-final-jorge-wilstermann-vs-river/>. The next match took place a few days later in Buenos Aires and the difference in the teams' performance was striking; River Plate scored a whopping eight goals against Jorge Wilstermann's three. Infobae Deportes, *River Humilló a Jorge Wilstermann, Expulso su Mejor Versión y Avanzó en la Copa Libertadores*, (Sep. 21, 2017), <https://www.infobae.com/deportes-2/2017/09/21/copa-libertadores-vuelta-de-cuartos-de-final-river-vs-jorge-wilstermann/>.

poorly as a result.⁶⁴ Mehlman, for example, notes that “American athletes . . . have an unfair competitive advantage over third world athletes because of better facilities and sophisticated techniques.”⁶⁵ The unfairness inherent in sports may be even more evident when considering that some professional athletes at the Olympic level do not even have adequate food.⁶⁶

The “unfair advantage” justification for the prohibition of performance-enhancing drugs falls under its own weight in certain scenarios. For example, Olympic runner Caster Semenaya, is believed to have a condition known as hyperandrogenism which produces abnormally high testosterone levels in women.⁶⁷ Although these reports are unconfirmed, she is believed to have testosterone levels three times higher than those of the average woman.⁶⁸ While it has been understood for decades that higher testosterone levels boost performance,⁶⁹ Semenaya was nonetheless allowed to compete in the 2016 Rio Olympics in women’s competitions.⁷⁰

How are female athletes with higher than average testosterone levels not considered to have an “unfair advantage” from the perspective of female competitors with average testosterone levels? The former would be enhanced from an objective standpoint. In the narrow context of enhancement and unfair advantage in sport, the difference between a female athlete injecting herself with testosterone and one whose body produces more testosterone is a syringe.

Another justification for the prohibition of performance-enhancing drugs is the belief that they are harmful to athletes’ health.⁷¹ It is true that the concern for athlete’s health played a role in the early development of anti-doping policy⁷² and that some performance-enhancing substances present health risks to athletes.⁷³ For example, several athletes died from the overuse

64. *River Humilló a Jorge Wilstermann*, *supra* note 63.

65. *See* MEHLMAN, *supra* note 44.

66. *See* MEHLMAN, *supra* note 44, at 69 (citing Greg Bishop, *Getting a Boost: Changing Your Genes*, SEATTLE TIMES C11 (Oct. 9, 2005)).

67. *See* Francisco J. Sánchez, María José Martínez-Patiño & Eric Vilain, *The New Policy on Hyperandrogenism in Elite Female Athletes is Not About “Sex Testing.”* 50 J. SEX RES. 112–15 (Feb. 2013).

68. Melissa Block, *The Sensitive Question of Intersex Athletes*, NPR (Aug. 16, 2016), <http://www.npr.org/sections/thetorch/2016/08/16/490236620/south-african-star-raises-sensitive-questions-about-intersex-athletes>.

69. *See infra* note 114.

70. Block, *supra* note 68; *see* U.S. National Library of Medicine, *Intersex*, <https://medlineplus.gov/ency/article/001669.htm>. “Intersex is a group of conditions where there is a discrepancy between the external genitals and the internal genitals.” *Id.* Most of these conditions involve the production of sex hormones which make the individual’s sexual characteristics ambiguous. *Id.*

71. *See* McGrew, *supra* note 36, at 234–35. An example of the overstatements and misconceptions regarding the safety and issues arising from the use of anabolic steroids is reflected in an early publication by a recognized physician in the field, Dr. William N. Taylor. *See* WILLIAM N. TAYLOR, MACHO MEDICINE: A HISTORY OF THE ANABOLIC STEROID EPIDEMIC (1991). Although Dr. Taylor is a leading scholar in the field, he was disciplined by the Florida Board of Examiners in the 1980s for the illegal purchase of anabolic steroids, which he claimed he obtained in order to prove that there was a black market for them. *USOC Doctor Reportedly Sold Steroids*, L.A. TIMES (July 4, 1988), http://articles.latimes.com/1988-07-04/sports/sp-3982_1_anabolic-steroids.

72. *Id.*

73. *See* Mehlman et al., *supra* note 36, at 22–23.

of amphetamines to improve physical performance in the 1960s.⁷⁴ Amphetamines were popular among athletes at the time, and they were proven to actually enhance athletic performance.⁷⁵ It is worth noting, however, that most of the early studies examining the effects of anabolic steroids—the most infamous of performance-enhancing drugs—on users' health were not conclusive.⁷⁶

While it is undisputed that the abuse of performance-enhancing drugs without medical supervision is harmful and sometimes deadly to athletes,⁷⁷ the lack of in-depth medical research in this subject has contributed to the near universal belief that any amount of performance-enhancing drugs, such as anabolic steroids, is very harmful to athletes' health. As numerous authors have noted, the health concerns associated with the use of other performance-enhancing substances more commonly used today—such as anabolic steroids—are exaggerated.⁷⁸ Some of the most serious side effects usually associated with anabolic steroids are actually due to the use of anabolic steroid precursors or “designer” anabolic steroids—most of which are taken orally and can cause, among other things, liver damage.⁷⁹ Scholars believe that some serious health effects from doping arise from the concurrent intake of many different substances.⁸⁰ Significantly, despite the millions of people known to be using anabolic steroids,⁸¹ there is a notable silence in health reports and the general literature about any reported severe adverse effects or deaths attributed exclusively to steroid use.⁸²

It is difficult to harmonize the idea that prohibition of performance-enhancing drugs in sports stems from a genuine concern for athletes' health

74. *Id.* However, the use of amphetamines as performance-enhancers in sports has decreased; nowadays the primary use for amphetamines is for cognitive-enhancing purposes in academic or work environments not requiring physical exertion. *See generally* SCHWARZ, *supra* note 18.

75. *See* MEHLMAN, *supra* note 44, at 124.

76. *See* Mehlman et al., *supra* note 36, at 31.

77. A recent example of the dangers of abuse of performance-enhancing drugs and a lack of medical supervision, is the case of 26 year-old Bodybuilder Dallas McCarver, who passed away in August 2017. McCarver was originally believed to have died as a result of having choked on food. Christa Sgobba, *26-Year-Old Bodybuilder Dallas McCarver Dies After Reportedly Choking on Food*, MEN'S HEALTH (Aug. 23, 2017), <https://www.menshealth.com/health/dallas-mccarver-bodybuilder-dies>. However, the Coroner's report from Office of the District Medical Examiner in Palm Beach County, Florida revealed the cause of death to be “severe concentric left ventricular hypertrophy with coronary artery atherosclerosis,” caused in part by “chronic use of exogenous steroid and non-steroid hormones.” *Breaking: The Dallas McCarver Autopsy Has Been Released*, GENERATION IRON, <https://generationiron.com/dallas-mccarver-autopsy-released/> (last visited Jan. 15, 2018) (report on file with author).

78. *See* McGrew, *supra* note 36, at 33–34. *See also* Mehlman et al., *supra* note 36, at 15, 23.

79. Michael E. Powers, *The Safety and Efficacy of Anabolic Steroid Precursors: What is the Scientific Evidence?* 37 J. ATHLETIC TRAINING 300 (2002), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC164360/pdf/attr_37_03_0300.pdf.

80. *See* Adrian Wilairat, *Faster, Higher, Stronger? Federal Efforts to Criminalize Anabolic Steroids and Steroid Precursors*, 9 J. HEALTH CARE L. & POL'Y 377, 396 (2005).

81. U.S. DEP'T OF JUSTICE, DRUG ENFORCEMENT ADMIN., A GUIDE FOR UNDERSTANDING STEROIDS AND RELATED SUBSTANCES (Mar. 2004), <https://www.deadiversion.usdoj.gov/pubs/brochures/steroids/professionals/>.

82. Mehlman, Banger and Wright noted the silence in the literature regarding instances of documented harm to athletes due to steroid use. Mehlman et al., *supra* note 36, at 34–35. Over a decade later, the void in the literature remains the same.

when some sports already inherently carry such severe and sometimes deadly health risks. A study conducted on the brains of deceased football players revealed that 99% of the brains examined showed signs of severe trauma.⁸³ In the case of boxing—in which direct blows to the head are an integral aspect of the sport—a study conducted at the Boston University School of Medicine found chronic traumatic encephalopathy (CTE), a serious degenerative brain condition,⁸⁴ in 100% of the boxers analyzed in the study.⁸⁵ A study conducted on the brain of Aaron Hernandez—a professional football player who was sentenced to life in prison for murder and committed suicide while serving his sentence—revealed severe brain damage for a person of his age; Hernandez was twenty-seven.⁸⁶ Dr. Ann McGee, who examined Hernandez's brain, stated that out of the 468 brains her laboratory had examined, Hernandez's brain was the youngest brain showing such a degree of CTE damage, the next one being that of a forty-six year-old person.⁸⁷ The question then is, if the misconceptions and primary justifications behind the prohibition of performance-enhancing substances are not adequately supported by empirical evidence or even common-sense, how did they originate and why have they endured for so long?

III. THE PAST: ORIGINS AND EVOLUTION OF THE ANTI-ENHANCEMENT NARRATIVE

Table A – Timeline of Performance-Enhancing Drugs; Developments and Regulations

Year	Substance/ Event	Jurisdiction/ Location	Regulation/ Effect
1887	Amphetamines first synthesized in laboratory ⁸⁸	Germany ⁸⁹	Amphetamine is a stimulant affecting the nervous system. ⁹⁰
1912	Theobromine and other substances first prohibited	Britain	First prohibition of doping occurs in horse racing. ⁹¹

83. Jesse Mez, et al., *Clinicopathological Evaluation of Chronic Traumatic Encephalopathy in Players of American Football*, 318 JAMA 360–70 (2017).

84. *Chronic Traumatic Encephalopathy: Definition*, MAYO CLINIC, <https://www.mayoclinic.org/diseases-conditions/chronic-traumatic-encephalopathy/basics/definition/con-20113581>.

85. Jeffrey Kluger, *Pacquiao, Mayweather, and the Physics of Getting Punched in the Head*, TIME (May 1, 2015), <http://time.com/3842459/mayweather-pacquiao-brain-injury/>.

86. *Researcher: Aaron Hernandez's Brain Was Severely Impacted by CTE*, ESPN (Nov. 9, 2017), http://www.espn.com/nfl/story/_/id/21352644/researcher-says-aaron-hernandez-brain-was-severely-impacted-cte.

87. *Id.*

88. DRUGS, ALCOHOL AND SPORT: A CRITICAL HISTORY 91 (Paul Dimeo ed., Routledge 2006).

89. *Origin and History*, UNIV. OF ARIZONA: METHOIDE, <http://methoide.fcm.arizona.edu/infocenter/index.cfm?stid=164> (last visited Nov. 24, 2017).

90. See generally David J. Heal et al., *Amphetamine, Past and Present – A Pharmacological and Clinical Perspective*, 27 J. PSYCHOPHARMACOLOGY 479 (2013).

91. See MEHLMAN, *supra* note 44, at 122.

1929-1939	Testosterone first isolated ⁹²	Germany; U.S.	Testosterone is a sex hormone which is androgenic—inducing of male physiological traits—and anabolic—induces the growth of tissue. ⁹³
1938	IOC adopted finding from Warsaw report ⁹⁴	International	Regulated “drugs and artificial stimulants,” ⁹⁵ in professional sports
1956	Human Growth Hormone (hGH) first isolated from cadavers	U.S.	Since the hormone was extracted from the pituitary glands of cadavers, its availability was restricted. ⁹⁶
1958	First synthetic anabolic steroid, Dianabol, produced by Ciba Pharmaceuticals ⁹⁷	U.S.	Dianabol, as other anabolic steroids, has the muscle-building properties of testosterone with less androgenic effects. ⁹⁸
1965	France and Belgium implement general anti-doping laws	France, Belgium	General regulation. For example, the French law prohibited substances which would enhance physical capabilities and which were detrimental to health. ⁹⁹

92. Adolph Butenandt, a German chemist, first isolated osterone, androsterone and testosterone. Independently, American Chemist Edward Alan Doisy isolated osterone in the U.S. Nobelprize.org, *Adolf Butenandt – Biographical*, https://www.nobelprize.org/nobel_prizes/chemistry/laureates/1939/butenandt-bio.html (last visited Sep. 4, 2017).

93. WILLIAM N. TAYLOR, ANABOLIC STEROIDS AND THE ATHLETE 15–16 (2d ed. 2002).

94. MEHLMAN, *supra* note 44, at 122.

95. As Mehlman notes, however, “[t]here was no explanation of how to distinguish a natural from an artificial stimulant and . . . the IOC made no attempt at enforcement.” *Id.*

96. See Vageesh S. Ayyar, *History of Growth Hormone Therapy*, 15 INDIAN J. ENDOCRINOLOGY & METABOLISM S162 (2011).

97. Justin Peters, *The Man Behind the Juice*, SLATE (Feb. 18, 2005), http://www.slate.com/articles/sports/sports_nut/2005/02/the_man_behind_the_juice.html.

98. TAYLOR, *supra* note 93, at 18, 26.

99. THE TOUR DE FRANCE 1903-2003: A CENTURY OF SPORTING STRUCTURES, MEANINGS AND VALUES 237 (Hugh Dauncey & Geoff Hare eds. 2003).

1968	Analgesics and narcotics added to IOC list of banned substances	International	IOC Implemented list of substances identified by Olympic Medical Commission; ¹⁰⁰ applicable only to IOC-regulated athletes. ¹⁰¹
1970-71	Controlled Substances Act enacted; the beginning of the “War on Drugs”	U.S.	Created several categories or “schedules” of substances subject to strict regulation; did not include anabolic steroids. ¹⁰² Nixon administration starts campaign against the use of recreational drugs. ¹⁰³
1985	hGH	U.S.	hGH first synthesized in a laboratory ¹⁰⁴
1985-87	Masking agents added to IOC list of prohibited substances ¹⁰⁵	International – IOC	Applicable only to IOC-regulated athletes
1990	Anabolic Steroid Control Act of 1990	U.S.	Added anabolic steroids to the Controlled Substances Act; applicable to the general population and not just in the professional sports setting. ¹⁰⁶
1999	World Anti-Doping Agency created	International – controlled by the IOC	Created the World Anti-Doping Code; certifies anti-doping laboratories around the world. ¹⁰⁷

100. See MEHLMAN, *supra* note 44, at 125–26.

101. *Id.* at 122–25.

102. 21 U.S.C. § 801 *et seq.* (1970).

103. *Thirty Years of America’s Drug War; a Chronology*, PBS: FRONTLINE (last visited April 4, 2017), <http://www.pbs.org/wgbh/pages/frontline/shows/drugs/cron/>.

104. See Ayyar, *supra* note 96.

105. Athletes taking performance-enhancing drugs will also take substances that interfere with testing results or substances which counteract negative effects in the body evidencing the use of performance-enhancing substances. MEHLMAN, *supra* note 44, at 125.

106. Anabolic Steroids Control Act of 1990, Pub. L. No. 101-647, § 2, 104 Stat. 4789 (1990).

107. See MEHLMAN, *supra* note 44, at 126.

2000	U.S Anti-Doping Agency	U.S.	Enforcement of anti-doping policies in sports and sanctioning doping athletes.
2004	World Anti-Doping Code	International – World Anti-Doping Agency enforced	Canon document which encompasses international anti-doping regulations. ¹⁰⁸
2004	Anabolic Steroids Control Act of 2004	U.S.	Amended the Controlled Substances Act to “clarify the definition of anabolic steroids.” ¹⁰⁹
2014	Anabolic Steroids Control Act of 2014	U.S.	Expanded the definition of anabolic steroid to substances mimicking testosterone. ¹¹⁰

The regulation of performance-enhancing substances outside of sports lies within two territories: drugs¹¹¹ and everything else.¹¹² Performance-enhancing drugs such as anabolic steroids¹¹³ and amphetamines¹¹⁴ fall under the strict regulatory umbrella of the 1970 Controlled Substances Act (the “Controlled Substances Act”).¹¹⁵ The Controlled Substances Act allows for

108. World Anti-Doping Agency, *The Code*, <https://www.wada-ama.org/en/what-we-do/the-code> (last visited Sep. 9, 2017). Although the WADA Code was not uniformly applied until January of 2004, Mehlman notes that its first application was at the 2000 Sydney Olympics. MEHLMAN, *supra* note 44, at 126.

109. Anabolic Steroid Control Act of 2004, Pub. L. 108-358, § 2, 118 Stat. 1661–65 (2004).

110. Designer Anabolic Steroid Control Act of 2014, Pub. L. 113-260, § 2(C)(i), 128 Stat. 2929–33 (2014).

111. The FDA defines “drug” in relevant part as: “a substance intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease; a substance (other than food) intended to affect the structure or any function of the body.” FDA, *Drugs@FDA Glossary of Terms*, <https://www.fda.gov/drugs/informationondrugs/ucm079436.htm>; *see also* 21 U.S.C. § 321 (2016).

112. This realm encompasses nutritional supplements, which are sold freely and directly to consumers. *See* FDA, *What is a Dietary Supplement?* <https://www.fda.gov/aboutfda/transparency/basics/ucm195635.htm>; *see also* 21 U.S.C. § 321; 21 C.F.R. § 111 *et seq.*

113. “Anabolic steroids are synthetic derivatives of testosterone;” testosterone is an androgenic hormone which in large doses magnifies male traits in women, and induces physiological changes in both men and women, including an increase in muscle mass, red blood cells, and bone density. TAYLOR, *supra* note 93, at 15–17.

114. Amphetamines are central nervous system stimulants. L. Avois et al., *Central Nervous System Stimulants and Sport Practice*, 40 BRIT. J. SPORTS MED. I 16 (July 2006). Amphetamines are usually found in drugs prescribed for the treatment of Attention Deficit Hyperactivity Disorder and are used as cognitive enhancers due to their ability to “boost any person’s motivation and focus.” SCHWARZ, *supra* note 18, at 4. As Schwartz states, Amphetamines, “move from medicine to performance-enhancing drugs, steroids for the brain.” *Id.*

115. 21 U.S.C. § 801 *et seq.* (1970).

legal use of these substances to people who have certain health conditions and a physician's prescription.¹¹⁶ The Controlled Substances Act applies to the general population, not just professional athletes.¹¹⁷ However, the origins of the Controlled Substances Act—as applied to the regulation of performance-enhancing substances—traces back to anti-doping policies in sport.¹¹⁸ An examination of Table A, which is a general timeline of developments in the realm of performance-enhancing drugs, reveals that broadly-applicable regulations of performance-enhancing substances have generally followed anti-doping policy in sport. Therefore, to understand the impact of anti-doping sports policy on the anti-enhancement narrative as observed in the general population, it is necessary to dive into its origins and philosophical underpinnings.

A. ANTI-ENHANCEMENT POLICY IN SPORTS: ETHICS, WAR AND POLITICS

“Are all these actions worthy of true athletes? We do not think so.”¹¹⁹ A member of the French National Olympic Committee made this statement in 1933 in response to the doping of athletes, constituting one of the first “anti-doping” sentiments recorded.¹²⁰ Indeed, prior to the rise of the anti-enhancement narrative in sports—which occurred between 1928 and 1933¹²¹—the use of performance-enhancing substances was common.¹²² Performance-enhancing substances were not illegal in or outside the sports context and were largely unregulated.¹²³ In the mid-twentieth century, athletes routinely used amphetamines to increase their speed.¹²⁴ People used methamphetamine as mood-booster and weight-loss aid.¹²⁵ Even president Kennedy routinely received methamphetamine injections; as authors

116. *Anabolic Steroid (Oral Route, Parenteral Route)*, MAYO CLINIC, <http://www.mayoclinic.org/drugs-supplements/anabolic-steroid-oral-route-parenteral-route/description/drg-20069323>; *Dextroamphetamine and Amphetamine (Oral Route)*, MAYO CLINIC, <http://www.mayoclinic.org/drugs-supplements/dextroamphetamine-and-amphetamine-oral-route/description/drg-20071758>. Also, although it is not a scheduled substance under the Controlled Substances Act, the prescription of Human Growth Hormone, for example, is severely restricted to a narrow set of conditions and physicians who prescribe it for other reasons run the risk of being criminally prosecuted. See Ryan Cronin, *Bureaucrats v. Physicians: Have Doctors Been Stripped of Their Power to Determine the Proper Use of Human Growth Hormone in Treating Adult Disease?*, 27 WASH. U. J. L. & POL'Y 191, 200 (2008).

117. 21 U.S.C. § 801 *et seq.* (1970).

118. See Herschthal, *supra* note 36, at 440.

119. Mehlman et al., *supra* note 36, at 21 (explaining that anti-doping ideals in the context of sports are relatively recent); see also Ruud Stokvis, *Moral Entrepreneurship and Doping Cultures in Sport*, 6 AMSTERDAM SCH. SOC. SCI. RES. 1 (Nov. 2003), <https://dare.uva.nl/search?identifier=54f98034-4cb2-40e6-bb38-377ef8c0a468>.

120. *Id.*

121. See MEHLMAN, *supra* note 44, at 122.

122. *Id.*

123. Many performance-enhancing substances would become strictly regulated for the first time in the 1970s through the Controlled Substances Act, 21 U.S.C. § 801 *et seq.* (1970).

124. See, e.g., Mehlman et al., *supra* note 36, at 30–31.

125. Olga Khazan, *When Meth Was an Antidepressant*, ATLANTIC (Nov. 20, 2015), <https://www.theatlantic.com/health/archive/2015/11/when-meth-was-an-antidepressant/416919/>.

Richard Lertzman and William Birnes note, the injections gave the President “a reliable source of energy and a mental high.”¹²⁶

The International Olympic Committee (IOC)—the international organization which oversees professional sports competitions around the world¹²⁷—first began to enact regulations banning the use of performance-enhancing substances in the late 1960s.¹²⁸ But due to the rudimentary doping tests available at the time, the only types of substances in the IOC’s first list of banned substances were analgesics and narcotics.¹²⁹

Early regulatory efforts in professional sports were the result of a combination of factors in the preceding decades, including the belief that East German and Soviet¹³⁰ athletes were using anabolic steroids to boost performance.¹³¹ During the Cold War, the Soviets and the United States used sport as a proxy for national displays of power.¹³² After the Cold War, the U.S. was no longer primarily interested in demonstrating its strength through its athletes.¹³³ At a time in which the need to display power faded, the desire to demonstrate to the world that the U.S. was a beacon of superior moral norms grew stronger.¹³⁴ The U.S. accomplished this by presenting the image before the international community that its athletes won “clean.”¹³⁵ As a result, the role of the U.S. as a major anti-doping police force in the international sports community grew.¹³⁶

The belief that the U.S. had an inherent moral superiority over the Soviet Union and everything it represented was key to the development of a national identity in the collective psyche.¹³⁷ This idea is so engrained in American culture that it is even reflected in film. In the movie *Rocky IV*, an all-American, hard-working boxer by the name of Rocky Balboa faces a cartoonish Soviet rival, Ivan Drago.¹³⁸ The film depicts Drago as having many advantages over Rocky, including cutting-edge sports technology,

126. RICHARD A. LERTZMAN & WILLIAM J. BIRNES, DR. FEELGOOD: THE SHOCKING STORY OF THE DOCTOR WHO MAY HAVE CHANGED HISTORY BY TREATING AND DRUGGING JFK, MARILYN, ELVIS AND OTHER PROMINENT FIGURES 10 (2013).

127. INTERNATIONAL OLYMPIC COMMITTEE, <https://www.olympic.org/the-ioc> (last visited June 11, 2017).

128. Mehlman et al., *supra* note 36, at 23–25.

129. MEHLMAN, *supra* note 44, at 122.

130. One of the issues which ignited the anti-doping discussion was the use of testosterone by Soviet athletes. *Id.* at 50. The concern with the use of steroids amongst athletes from communist nations reached its peak in the 1970s after it became known that the Soviets had implemented state-sponsored doping programs. *Id.* at 47. See generally Dionne L. Koller, *How the United States Government Sacrifices Athletes’ Constitutional Rights in the Pursuit of National Prestige*, BYU L. REV. 1465, 1492–93 (2008).

131. Anabolic steroids “are synthetic derivatives or analogues of testosterone.” TAYLOR, *supra* note 93, at 11. Testosterone is produced naturally by both men and women at different rates, and it is itself classified as an anabolic steroid due to its molecular structure. *Id.* at 12–13. Therefore, testosterone is an androgenic hormone which promotes the development of male characteristics. *Id.* at 15.

132. See generally Koller, *supra* note 130, at 1474.

133. *Id.*

134. *Id.* at 1492.

135. *Id.* at 1494.

136. *Id.* at 1493.

137. See generally GODFREY HODGSON, THE MYTH OF AMERICAN EXCEPTIONALISM 92–94 (2010). See also Stephen M. Walt, *The Myth of American Exceptionalism*, FOREIGN POL’Y (Oct. 11, 2011), <http://foreignpolicy.com/2011/10/11/the-myth-of-american-exceptionalism/>.

138. ROCKY IV (United Artists 1985).

state-of-the-art training facilities and, of course, anabolic steroids. In the end, Rocky defeats Drago. Rocky wins despite having trained with nothing but rudimentary equipment in a cabin in the Siberian tundra. The moral of the story is that the hard-working American prevails, proudly wearing his star-spangled shorts and preaching the importance of “sameness” to a hostile Soviet audience.

The Cold War ended, and the U.S.’s role in the international sports community grew, resulting in the morality-based framework of anti-doping policy in professional sports which endures to this day. The International Olympic Committee’s Code of Ethics (IOC Code of Ethics) focuses on doping as an ethical issue and lists “dignity” as one of its goals. This goal redundantly encompasses “safeguarding the dignity of the individual” and prohibiting the use of performance-enhancing drugs.¹³⁹

“Dignity” as mentioned in the IOC Code of Ethics is a loaded term. The belief that enhancement is contrary to the “dignity” of a person is known as essentialism.¹⁴⁰ This belief is not unique to sports ethics, appearing also in the field of bioethics and used to justify anti-enhancement policies, generally. For example, a 2003 report by The President’s Council on Bioethics¹⁴¹ expresses disapproval of “enhancement” through performance-enhancing substances and other means.¹⁴² According to the Council, enhancement is “dehumanizing” and compromises the “humanity” of people’s performance.¹⁴³ The Council states that performance enhancement mechanisms negate people’s claims to their own performance, and renders their performance not even completely human.¹⁴⁴ The Council further elaborates on this point stating that:

In trying to achieve better bodies through muscle-enhancing agents, pharmacological or genetic, we are not in fact honoring our bodies or cultivating our individual gifts. We are instead, whether we realize it or not, voting with our syringes to have a different body, with different native capacities and powers. We are giving ourselves new and foreign

139. INTERNATIONAL OLYMPIC COMMITTEE, CODE OF ETHICS 12 (2013), http://www.olympic.org/Documents/Commissions_PDFfiles/Ethics/code-ethique-interactif_en_2013.pdf.

140. See DAVID H. DEGROOD, PHILOSOPHIES OF ESSENCE (2d ed. 1976).

141. See *supra* note 55. The President’s Council on Bioethics was created during the Bush Administration. See *Executive Order 13237: Creation of the President’s Council on Bioethics*, GEORGETOWN UNIV., <https://bioethicsarchive.georgetown.edu/pcbe/about/executive.html> (last visited May 22, 2017). However, essentialist bioethics has endured even in more moderate views of enhancement in the policy context. The Council’s counterpart during the Obama Administration—the Presidential Commission for the Study of Bioethical Issues—although adopting an overall moderate approach, still exhibited a conservative outlook as it relates to cognitive enhancement for example, by stating that the priority of research should remain with methods of improving health and treating disease, rather than seeking enhancement. 2 PRESIDENTIAL COMM’N FOR THE STUDY OF BIOETHICAL ISSUES, GRAY MATTERS: TOPICS AT THE INTERSECTION OF NEUROSCIENCE, ETHICS, AND SOCIETY, at 4–5 (Mar. 2015), http://bioethics.gov/sites/default/files/GrayMatter_V2_508.pdf.

142. THE PRESIDENT’S COUNCIL ON BIOETHICS, *supra* note 55, at 131. The Council describes enhancement as “the directed use of biotechnical power to alter, by direct intervention, *not disease processes but the ‘normal’* workings of the human body and psyche, to augment or improve their native capacities and performances.” *Id.* at 13.

143. *Id.*

144. *Id.* at 131.

gifts, not nature's own, and—exaggerating, but in the direction of the truth—treating ourselves rather as if we were battling machines to be perfected or as superior horses bred for the race and bound to do our bidding. These acts of will do not respect either our own individuality or the dignity of our own embodiment—on which, by the way, our will absolutely depends for its very existence.¹⁴⁵ (emphasis added).

Bioethicist and political scientist Francis Fukuyama—who was a member of the Council¹⁴⁶—is a fierce opponent of enhancement and a proponent of essentialism.¹⁴⁷ At its logical core, essentialism is the idea that things have necessary properties from which their existence depends.¹⁴⁸ Fukuyama subscribes to the belief that human beings have an essence, which he calls “Factor X,” and which cannot be attributed to any specific human feature.¹⁴⁹ This “Factor X,” according to Fukuyama, is the source of human dignity.¹⁵⁰ Therefore, Fukuyama believes that “enhancement” of the human form is detrimental to the inherent worth of a person, as it alters the intangible, unqualifiable and unquantifiable essence of humanity.¹⁵¹

Author and proponent of enhancement technologies, James Hughes, identifies this concern with “dignity” as a secular manifestation of religious “bioconservative” ideals.¹⁵² To this point, Hughes states: “Against the demand for technological self-determination the Christian Right has carefully honed the phrase ‘human dignity’ as a stand-in for their less politically palatable theological concepts.”¹⁵³ Authors, including Hughes,¹⁵⁴ have written extensively about the issues plaguing essentialism as exemplified by the Council’s Report, Fukuyama’s theory, and the IOC Code of Ethics. For example, Hughes rejects the theory that human nature has a

145. *Id.* at 148–49.

146. The President’s Council on Bioethics, *Francis Fukuyama, Ph.D.*, GEORGETOWN UNIV., <https://bioethicsarchive.georgetown.edu/pcbe/about/fukuyama.html> (last visited May 21, 2017).

147. See FRANCIS FUKUYAMA, *OUR POSTHUMAN FUTURE: CONSEQUENCES OF THE BIOTECHNOLOGICAL REVOLUTION* 149–77 (2002).

148. Michael Della Rocca sets forth the logical statement of essentialism as, “[f]or example, x not only has property F, but x has F essentially [and therefore] x must have F in order to exist.” Michael Della Rocca, *Essentialists and Essentialism*, 93 J. PHIL. 186, 186 (1996). Essentialism as a school of thought traces to philosophers such as Plato, Aristotle and John Locke. DEGROOD, *supra* note 140, at 1–4, 6–12, 14–30, 54–62; see also John B. Mitchell, *My Father, John Locke, and Assisted Suicide: The Real Constitutional Right*, 3 IND. HEALTH L. REV 45 (2006). The notion that everything has an “essence” is also deeply engrained in people’s psychology, and it is therefore reflected in myriad contexts, including law and policy. Kerry Lynn Macintosh, *Psychological Essentialism and Opposition of Human Embryonic Stem Cell Research*, 18 J. TECH. L. & POL’Y 229, 232–33 (2013). In the law and policy setting, essentialism often arises in areas relating to bioethics and the law. See e.g., Leslie Bender, *Genes, Patents, and Assisted Reproductive Technologies: ARTs, Mistakes, Sex, Race & Law*, 12 COLUM. J. GENDER & L. 1, 40–41 (2003); David DeGrazia, *Moral Status, Human Identity, and Early Embryos: A Critique of the President’s Approach*, 34 J. MED. & ETHICS 49, 50–52 (2006); Kerry Lynn Macintosh, *Chimaeras, Hybrids, and Cybrids: How Essentialism Distorts the Law and Stymies Scientific Research*, 47 ARIZ. ST. L. J. 183 (Spring 2015).

149. HUGHES, *supra* note 37, at 113–15.

150. *Id.*

151. *Id.*

152. *Id.* at 110

153. *Id.* at 110–11.

154. *Id.* at 113–15.

specific “essence” which is somehow also imprecise and undefinable.¹⁵⁵ Other authors have noted the difficulty in drawing a line between therapy and enhancement,¹⁵⁶ as such line is not as clear-cut as the President’s Council on Bioethics considers it to be.¹⁵⁷

As such, the belief in bioethics¹⁵⁸ that enhancement is incompatible with human essence in general¹⁵⁹ goes hand-in-hand with the belief in sports ethics that enhancement is incompatible with the essence of an athlete. Even without explicit reference to words such as “dignity” or “essence,” the underlying philosophy in modern sports ethics is that there is something inherent to the essence of sport that is exclusive of enhancement. For example, another important document in the international governance of professional sports is the World Anti-Doping Agency’s¹⁶⁰ World Anti-

155. See *id.* at 78–79. See also HANNAH ARENDT, *THE HUMAN CONDITION* 8 (1958).

156. See generally Karpin & Mykitiuk, *supra* note 52. Karpin and Mykitiuk criticize the use of a “therapy/enhancement” distinction as a measure to approve or disapprove of certain therapies, explaining that the ideas of what is “normal” and therefore, what constitutes enhancement or therapy in relation to this idea of normalcy are inherently arbitrary and exclusionary of those who do not embody such concept of normalcy: “the concept of enhancement pre-supposes too many certainties about the so-called normal state beyond which it would or should be wrong to journey, while the concept of therapy embraces a standard of health and embodiedness that insists that those who do not meet it should desire to meet it and need to meet it.” *Id.*

157. Despite the criticism that the therapy/enhancement distinction has received, (*see, e.g., supra* note 68) the President’s Council on Bioethics specifically relies on that imprecise line to dictate what is ethically acceptable and what is not: “‘Therapy’ . . . is the use of biotechnological power to treat individuals with known diseases, disabilities, or impairments, in an attempt to restore them to a normal state of health and fitness. ‘Enhancement’ . . . is the directed use of biotechnological power to alter . . . the ‘normal’ workings of the human body and psyche, to augment or improve their native capacities and performances [T]herapy is always ethically fine, enhancement is, at least prima facie, ethically suspect.” THE PRESIDENT’S COUNCIL ON BIOETHICS, *supra* note 55, at 13–14.

158. Bioethics as an academic discipline studies the laws and principles furthering the values of autonomy, justice, and beneficence in the contexts of healthcare and clinical research to protect human subjects. See HHS Protection of Human Subjects, 45 C.F.R. § 46 (2015); Lori Andrews et al., *Virtual Clinical Trials: One Step Forward, Two Steps Back*, 19 J. HEALTH CARE L. & POL’Y 189, 193–94 (2017) (citing NUREMBERG MILITARY TRIBUNALS VOL. II, TRIALS OF WAR CRIMINALS BEFORE THE NUREMBERG MILITARY TRIBUNAL UNDER CONTROL COUNCIL LAW No. 10 181–82 (U.S. Gov. Printing Office, Oct. 1946–Apr. 1949)); see also 45 C.F.R. §§ 46.101(a), 46.102(h), 46.102(j), 46.103(b) (1991); CAL. HEALTH & SAFETY CODE § 24170 (West 1978); AM. MED. ASSOC., AMA CODE OF MEDICAL ETHICS, <https://www.ama-assn.org/sites/ama-assn.org/files/corp/media-browser/principles-of-medical-ethics.pdf>. However, as James Hughes notes, bioethics has become a political weapon and has therefore infiltrated policymaking: “Bioethics is proto-biopolitics being fought out in rarefied circles—academia and think tanks—before it breaks into the popular consciousness and becomes biopolitics proper.” HUGHES, *supra* note 37, at 61.

159. See THE PRESIDENT’S COUNCIL ON BIOETHICS, *supra* note 55, at 113–115.

160. The World Anti-Doping Agency “was established on November 10, 1999 . . . to promote and coordinate the fight against doping in sport internationally. WADA was set up as a foundation under the initiative of the IOC with the support and participation of intergovernmental organizations, governments, public authorities, and other public and private bodies fighting doping in sport.” *Who We Are*, WORLD ANTI-DOPING AGENCY, <https://www.wada-ama.org/en/who-we-are> (last visited June 3, 2017). WADA governs anti-doping efforts in the Olympics and the majority of professional sports organizations including: “the Commonwealth Games, the World Cup, Wimbledon, the French Open, the Australian Open, the U.S. Open, the Davis Cup, the Tour de France, the U.S. Tennis Association, the International Association of Athletics Federations (track-and-field), the International Basketball Federation, the International Gymnastics Federation, the International Hockey Federation, the International Triathlon Union, the International Swimming Federation, the International Table Tennis Federation, the World Taekwondo Federation, the World Bridge Federation and the International Chess Federation.” MEHLMAN, *supra* note 44, at 127.

Doping Code (WADA Code)—an international declaration of anti-doping policy in professional sports.¹⁶¹ The WADA Code explicitly states that “anti-doping programs seek to preserve what is intrinsically valuable about sport . . . often referred to as ‘the spirit of sport.’”¹⁶² This “intrinsic” or “essential” spirit of sport, as defined in the WADA Code encompasses without elaboration: “Ethics, fair play and honesty; Health; Excellence in performance; Character and education; Fun and joy; Teamwork, Dedication and commitment; Respect for rules and laws; Respect for self and other *Participants*; Courage; community and solidarity.”¹⁶³ By way of observation, the health of athletes—which is one of the major justifications for the prohibition of doping¹⁶⁴—comprises only one out of eleven factors listed in the WADA Code’s definition of the “spirit of sport.” The remaining factors are moral or character imperatives such as “dedication,” and “honesty.”¹⁶⁵ The definition of what constitutes the “essence of sport” as a concept is a collection of undefined terms associated with moral norms.

Therefore, when read in its entirety as a collection of tenets comprising the foundations of modern sports ethics, the IOC Code of Ethics and the WADA Code stand for the proposition that the use of performance-enhancing substances jeopardizes the essential worth or “dignity” of an athlete, and that the use of performance-enhancing substances is incompatible with the essence of sport.¹⁶⁶ In other words, enhancement is not “worthy of true athletes.”¹⁶⁷

Having imprecise and undefined moral imperatives as the foundation of modern sports ethics is problematic. Associating “true sport” with non-enhancement and reinforcing the belief that “true athletes” do not dope has been one of the main causes of the spread of the anti-enhancement narrative in broader society. However, it is inaccurate to say that the spread of the anti-enhancement narrative in society is solely the product of modern sports ethics. The other major factor in the spread of the anti-enhancement narrative is the development in the twentieth century of anti-drug laws targeting recreational drug use by the general population.

B. ANTI-ENHANCEMENT DRUG LAW: THE WAR ON DRUGS

The path to the moral demonization of performance-enhancing substances was cemented when anabolic steroids were included in the Controlled Substances Act, which was itself the product of one of the most

161. *The Code*, *supra* note 108. The WADA website states that: “The World Anti-Doping Code (Code) is the core document that harmonizes anti-doping policies, rules and regulations within port organizations and among public authorities around the world.” *Id.*

162. WORLD ANTI-DOPING AGENCY, *supra* note 59, at 14.

163. *Id.*

164. *See supra* notes 71–74 and accompanying text.

165. WORLD ANTI-DOPING AGENCY, *supra* note 59, at 14.

166. As Mehlman notes, the Code makes it clear that safeguarding the essence or “spirit” of sport is sufficient justification for the prohibition of a performance-enhancing substance. *See Mehlman, supra* note 36, at 34.

167. *Id.* at 21 (explaining that anti-doping ideals in the context of sports are relatively recent); *see also Stokvis, supra* note 119.

discredited campaigns of modern times, the “War on Drugs.”¹⁶⁸ First declared by President Richard Nixon in 1971, the War on Drugs was meant to address the rise in the use of recreational drugs,¹⁶⁹ which was strongly associated with the cultural revolution of the 60s.¹⁷⁰

It is believed that when Nixon declared the War on Drugs, the focus of anti-drug efforts was on treatment rather than punishment, but this is not true.¹⁷¹ The Nixon Administration had a clear focus on punishment and undertook a two-pronged approach to the development of its signature anti-drug policy.¹⁷² The first prong was to push for a massive anti-drug law enforcement effort.¹⁷³ During the emerging days of the War on Drugs, key administration officials—following personal religious morality¹⁷⁴—shaped anti-drug policy to reflect the view that the use of drugs was a character flaw.¹⁷⁵ The second prong was, therefore, influencing people to see and treat drug users as moral deviants. An even greater shift of the War on Drugs to a law-enforcement endeavor came in 1982 with President Ronald Reagan,¹⁷⁶ as the War on Drugs became primarily focused on punishment.¹⁷⁷

From its early origins in the Nixon administration, the War on Drugs had a significant effect in shaping the public’s perception that the use of recreational drugs was a moral failure.¹⁷⁸ Author Dan Baum notes how the administration successfully ascribed this moral failure to specific groups of people by associating them with the moral failures of drug use: “‘The incendiary black militant and the welfare mother, the hedonistic hippie and the campus revolutionary.’ *The young, the poor and the black.*”¹⁷⁹ As a result, these groups became the social pariahs of America, people evidencing lack of morals and weakness of character. After all, all that was required of those tempted to use drugs was to be morally strong enough to “Just Say No.”¹⁸⁰

The War on Drugs gave rise to the first comprehensive federal law prohibiting the use of certain drugs: the 1970 Controlled Substances Act.¹⁸¹ The Act created five categories, or “schedules,” in which different substances were classified based on criteria such as their potential medical use and addictive properties.¹⁸² The Controlled Substances Act was the first comprehensive regulation of commonly-abused drugs such as

168. The literature criticizing the “War on Drugs” campaign and accompanying policies is extensive. See e.g., BAUM, *supra* note 39; see also ALEXANDER, *supra* note 39.

169. PBS, *Thirty Years of America’s Drug War: A Chronology*, FRONTLINE, <http://www.pbs.org/wgbh/pages/frontline/shows/drugs/cron/> (last visited Apr. 4, 2017).

170. See BAUM, *supra* note 39, at 7.

171. PBS, *supra* note 169.

172. BAUM, *supra* note 39, at 33–41.

173. *Id.* at 35–91.

174. *Id.* at 20.

175. *Id.* at 10–11.

176. PBS, *supra* note 169.

177. *Id.*

178. BAUM, *supra* note 39, at 40, 150.

179. *Id.* at 21 (citing an article appearing in the magazine *Newsweek* in 1969, reflecting the middle-class’ belief that these groups were at war with the middle class).

180. PBS, *supra* note 169. In 1984, Nancy Reagan became the face of the government’s War on Drugs with her “Just Say No” campaign. *Id.*

181. *Id.*; 21 U.S.C. § 812 (1970).

182. 21 U.S.C. § 812(b) (1970).

methamphetamine, morphine, heroin, and marijuana, otherwise known as recreational drugs.¹⁸³ These drugs have something in common: they are recognized to have addictive properties and therefore, have a potential for abuse.¹⁸⁴

The Controlled Substances Act and the War on Drugs paved the way for strict regulation of performance-enhancing drugs. Anabolic steroids and hGH¹⁸⁵ were first regulated under the Anabolic Steroid Control Act of 1990 (the “Steroids Control Act”).¹⁸⁶ The Steroids Control Act amended the Controlled Substances Act to include anabolic steroids as a schedule III controlled substance.¹⁸⁷ The passing of the Steroids Control Act was the result of decades of high-profile doping scandals in professional sports¹⁸⁸ and only took place after the International Olympic Committee banned the use of anabolic steroids.¹⁸⁹ Prior to 1990, anabolic steroids and hGH were not illegal.¹⁹⁰

The moral justification for the passage of the Steroids Control Act and its origin in sports ethics is evident from its history: congressional hearings on the Act focused on the urgency of solving the issue of “cheating” in professional sports.¹⁹¹ In fact, the Steroids Control Act became law despite opposition on scientific grounds from major health and government organizations such as the Drug Enforcement Administration, the National Institute on Drug Abuse, and the American Medical Association.¹⁹² The American Medical Association explicitly stated that anabolic steroids were not addictive, which is a necessary part of the criteria for regulation under the Controlled Substances Act.¹⁹³ Nevertheless, the Steroids Control Act passed; the Controlled Substances Act now includes anabolic steroids as a schedule III controlled substance,¹⁹⁴ and provides criminal penalties for their use and distribution.¹⁹⁵

The Controlled Substances Act was subsequently amended in 2004 through the Anabolic Steroids Control Act of 2004,¹⁹⁶ and again in 2014

183. *Id.* § 812(c).

184. *See generally id.*

185. *Human Growth Hormone (HGH) Testing*, WORLD ANTI-DOPING AGENCY, <https://www.wada-ama.org/en/questions-answers/human-growth-hormone-hgh-testing>. (last visited May 21, 2017).

186. Anabolic Steroids Control Act of 1990, Pub. L. No. 101-647, § 2, 104 Stat. 4789 (1990).

187. *See id.*

188. *See* GREENWOOD, KALMAN & ANTONIO, *supra* note 41, at 14–16; MEHLMAN, et al., *supra* note 44, at 50. *See also* Herschthal, *supra* note 36, at 440. The author notes: “Canadian sprinter Ben Johnson infamously garnered waves of media publicity after he tested positive for the steroid Stanozolol at the 1988 Seoul Olympics. The notoriety and public outcry that surrounded steroid use at the Games compelled Congress to take action.” *Id.*

189. *Who We Are*, *supra* note 160; *see also* Anabolic Steroids Control Act of 1990 § 2.

190. Anabolic Steroids Control Act of 1990 § 2. The Anabolic Steroids Control Act specifically amended the Controlled Substances Act “to provide criminal penalties for illicit use of anabolic steroids” *Id.*

191. MEHLMAN, *supra* note 44, at 139; Herschthal, *supra* note 36, at 440.

192. Herschthal, *supra* note 36, at 440.

193. *Id.*

194. Anabolic Steroids Control Act of 1990 §§ 2–3.

195. *Id.*

196. Anabolic Steroid Control Act of 2004, Pub. L. 108-358, § 2, 118 Stat. 1661–65 (2004)

through the Designer Anabolic Steroid Control Act of 2014.¹⁹⁷ The stated purposes of the 2004 and 2014 Acts were, respectively, “to clarify the definition of anabolic steroids”¹⁹⁸ and to expand the definition of “anabolic steroid” to any new substances which mimic the muscle-building effects of testosterone.¹⁹⁹ The reality is that both the 2004 and 2014 Acts were the legislature’s reaction to the supplement industry manufacturers’ ability to create substances slightly chemically-different from those originally included in the Steroids Control Act, which exploited the law’s loopholes.²⁰⁰

As Mehlman notes, what he calls the “rabid antidoping sentiment”²⁰¹ towards performance-enhancement is in part due to the simultaneous rise of the War on Drugs and anti-doping policies in sports.²⁰² Mehlman’s observation is correct. Indeed, the architects of the War on Drugs had underlying moral convictions which enabled the anti-drug narrative to take place; they believed that the use of recreational drugs was a moral failure and that it was wrong to look for “root causes” of drug use, which generally involved blaming society for an individual’s own actions.²⁰³ They encouraged the media to exaggerate the effect of drug use and emphasize its link to crime to the youth to seed the social narrative that ensued.²⁰⁴ It is evident, however, that what I call the anti-enhancement narrative far predates the Steroids Control Act and the War on Drugs itself.

Animosity toward the use of performance-enhancing drugs may have influenced the War on Drugs which started during the Nixon administration.²⁰⁵ After all, Nixon had been defeated by an “enhanced” Kennedy who out-performed him during the televised debates due to his heavy use of methamphetamines, which he only discovered after Kennedy’s assassination.²⁰⁶ In their book *Dr. Feelgood*, authors Richard Lertzman and William Birnes directly link part of the underlying philosophy of Nixon’s War on Drugs to Dr. Max Jacobson, the physician who supplied Kennedy

197. Designer Anabolic Steroid Control Act of 2014, Pub. L. 113-260, § 2(C)(i), 128 Stat. 2929–33 (2014).

198. Anabolic Steroid Control Act of 2004 § 2.

199. See Designer Anabolic Steroid Control Act of 2014 § 2(C)(i); *Id.*

200. Jan Felix Joseph & Maria Kristina Parr, *Synthetic Androgens as Designer Supplements*, 13 CURRENT NEUROPHARMACOLOGY, 89, 89 (2015); see also Ford Vox, *Amazon’s Illegal Drug Dealing*, SLATE (May 29, 2014), http://www.slate.com/articles/health_and_science/medical_examiner/2014/05/amazon_illegal_drugs_muscle_relaxants_steroids_prescription_drugs_delivered.html.

201. MEHLMAN, *supra* note 44, at 50.

202. *Id.*

203. BAUM, *supra* note 39, at 7.

204. *Id.* at 31–33.

205. Lertzman and Birnes, in their book, thoroughly discuss the complex interrelation between Kennedy’s use of methamphetamine during his campaign and presidency, his assassination, the resulting actions by the Nixon administration, the eventual investigation into Dr. Jacobson’s practice, the Controlled Substances Act of 1970 and finally, the War on Drugs. See LERTZMAN & BIRNES, *supra* note 126, at 20, 21, 133, 148 and 161.

206. At the time of the famous televised debate of September 26, 1960, Kennedy was under the influence of a heavy dosage of methamphetamines which Lertzman and Birnes opine enabled him to perform exceedingly well despite his debilitating back pain. LERTZMAN & BIRNES, *Id.*, at 20, 133. According to the authors, Kennedy turned to heavy use of methamphetamines due to his back pain and severe exhaustion, which took a toll on his personality and his ability to keep up with his commitments during his presidential campaign and presidency. *Id.* at 8–24.

and other celebrities at the time—including Marilyn Monroe and Frank Sinatra²⁰⁷—with methamphetamine injections at their whim.²⁰⁸

Regardless of Nixon’s motivation, the effect of the underlying philosophy of the War on Drugs and the resulting 1970 Controlled Substances Act was to make people believe that the use of drugs was morally wrong. When the Controlled Substances Act was amended to include anabolic steroids through the Steroids Control Act, the connection between amorality and performance-enhancement became direct and no longer confined to sports. At this point, the use of performance-enhancing drugs was not just cheating, but also a severe moral failure rising to the level of a crime worthy of imprisonment.²⁰⁹

However, today’s anti-enhancement narrative is more than the natural progression of values arising from two sides of the same anti-drug coin. The regulatory scheme fell short of fulfilling its purpose—preventing the general public and athletes from using performance-enhancing drugs²¹⁰—much in the same way the War on Drugs failed to keep people from using recreational drugs.²¹¹ The shortcomings of the law and policy, as well as the impact of the dual contradicting societal attitudes arising from this failure—the illegality and immorality ascribed to the use of performance-enhancing drugs and the simultaneous encouragement for their use—can only be fully appreciated contextually.

IV. THE PRESENT: THE FAILURES AND EFFECTS OF THE ANTI-ENHANCEMENT NARRATIVE

A. IN CONTEXT: THE FAILURE OF ANTI-PERFORMANCE ENHANCEMENT LAW AND POLICY IN SPORT

People continue to use drugs at alarming rates and the shortcomings of anti-drug laws and virtual failure of the War on Drugs are, therefore, well-known in the context of recreational drugs.²¹² Nevertheless, while it might be common knowledge for some people that professional athletes dope, it might be surprising for the majority of people to learn just how pervasive and widespread the practice truly is.²¹³ Exercise physiology scholar and fitness

207. *Id.* at 112–14.

208. To this fact, the authors state: “The [Dr. Max] Jacobson story turns out to be a story of how one man dispensing powerful methamphetamines not only changed the course of US presidential history, but also wound up creating what amounted to nothing less than a subculture of celebrity addicts. As a result, Jacobson ultimately became an instrument for the media in their pursuit of Richard Nixon, *even while his actions helped convince President Nixon to launch the War on Drugs.*” *Id.* at 164 (emphasis added).

209. Under the Controlled Substances Act, unlawful possession of a controlled substance “may be sentenced to a term of imprisonment of not more than 1 year, and shall be fined a minimum of \$1,000 or both[.]” 21 U.S.C. 844(a).

210. *See infra* notes 212, 338–60 and accompanying text. *See generally* BAUM, *supra* note 39.

211. *See generally* BAUM, *supra* note 39.

212. *See generally* ALEXANDER, *supra* note 39.

213. *See infra* notes 214–52 and accompanying text.

athlete Jim Stoppani,²¹⁴ believes it is likely that many professional athletes in all kinds of sports use performance-enhancing substances.²¹⁵ Throughout history, doping scandals have roiled all sorts of professional sports including baseball,²¹⁶ football,²¹⁷ soccer,²¹⁸ tennis,²¹⁹ swimming,²²⁰ cycling,²²¹ horse racing,²²² and even chess.²²³ Investigators have exposed that, in the inner circles of professional sports, it is common knowledge how to cheat the doping tests administered by WADA.²²⁴ Don Catlin, the founder of the highly respected WADA-approved UCLA Olympic laboratory,²²⁵ stated for a documentary that he tested Lance Armstrong approximately fifty times, and Armstrong never once tested positive for doping.²²⁶ When asked about whether he believed that Armstrong was the only athlete doping, Catlin responded without hesitation: “They’re all doping. Every single one of ‘em.”²²⁷ Recent examples of the anti-doping system’s failure are the 2016 Rio Olympic Games in which doping was a major issue despite decades of anti-doping policy.²²⁸ The situation was so severe that the entire Russian Olympic track and field team was banned from the Games due to widespread

214. Jim Stoppani earned his doctorate in exercise physiology from the University of Connecticut and is a research fellow at the Yale University School of Medicine. *Jim Stoppani: Background*, BODYBUILDING.COM, <https://www.bodybuilding.com/author/jim-stoppani-phd>; *Jim Stoppani*, JIMSTOPPANI.COM, <https://www.jimstoppani.com/>.

215. GENERATION IRON (Vladar Co. 2013).

216. The use of performance-enhancing substances in professional baseball is so infamous that there is a period of time in the sport known as “the steroids era.” *The Steroids Era*, ESPN (Dec. 5, 2012) http://www.espn.com/mlb/topics/_page/the-steroids-era; see also Editorial Board, *Baseball’s Doping Cheats—Hall of Fame, or Infamy?* CHI. TRIB. (Jan. 12, 2017), <http://www.chicagotribune.com/news/opinion/editorials/ct-baseball-hall-of-fame-doping-cheats-edit-20170113-story.html>.

217. George Vecsey, *Why Does the NFL Get a Free Pass on Doping?* N.Y. TIMES (Jan. 27, 2008) <http://www.nytimes.com/2008/01/27/sports/27iht-nfl.1.9522468.html>.

218. Christ Thompson, *Report: FIFA is Investigating the Entire Russian World Cup Team for Doping*, DEADSPIN (July 25, 2017), <http://deadspin.com/report-fifa-is-investigating-the-entire-russian-world-1796401600>.

219. Clarey & Tierny, *supra* note 7.

220. MEHLMAN, *supra* note 44, at 50.

221. John Reville, *UCI Vacates Armstrong’s Tour de France Wins*, WALL ST. J. (Oct. 26, 2012), <https://www.wsj.com/articles/SB10001424052970203922804578080742064696944?mg=id-wsj>.

222. MEHLMAN, *supra* note 44, at 122–23.

223. *Id.* at 128.

224. See generally ICARUS (Alex Productions 2017).

225. “The UCLA Olympic analytical Laboratory is the world’s largest World Anti-Doping Agency (WADA)-accredited sports drug testing facility and one of the leading research institutions in the field of athletic doping.” *UCLA Pathology & Laboratory Medicine: Olympic Lab*, UCLA HEALTH, <http://pathology.ucla.edu/olympic-lab> (last visited Sep. 9, 2017).

226. ICARUS, *supra* note 224.

227. *Id.*

228. See Ben Rumsby, *Rio 2016 Olympics: Anti-Doping Branded ‘Worst’ in Games History*, TELEGRAPH (Aug. 17, 2016), <http://www.telegraph.co.uk/olympics/2016/08/17/rio-2016-olympics-anti-doping-branded-worst-in-games-history/>. The possible reason why more athletes do not test positive for doping includes the lack of organized, systematic testing procedures at major sporting events such as the Olympic Games. *Id.* To this issue, a former anti-doping agent at UK Sport noted, in an interview: “We almost get to the situation *were we’re lucky to catch anybody*.” *Id.* (emphasis added). The issue of doping was so severe in the Rio Olympics that WADA recommended banning Russian athletes from the Games after it issued a report which revealed a “state-sponsored doping program during the 2014 Sochi Winter Games.” See Bishara, *supra* note 3.

doping.²²⁹ The utter failure of the IOC's anti-doping policy and the widespread prevalence of doping is evident when Russian officials openly admit to a state-sponsored doping program²³⁰ for their Olympic athletes.²³¹ Ironically, one of the reasons for the rise of anti-doping policies in sports was the concern of widespread doping by the Soviet and East German Olympic teams,²³² which arose around the 1950s²³³—yet here we are over half a century later!

Despite the widespread and pervasive use of performance-enhancing drugs in all sports, it is certainly possible to become a professional athlete without the use of performance-enhancing substances. For example, it is undoubtedly possible to become a professional soccer or basketball player without using anabolic steroids—how successful this hypothetical athlete becomes is a different issue. The sport of bodybuilding, however, stands on its own due to its deep and controversial ties to performance-enhancing substances. Despite the fact that many professional bodybuilders do not admit to doping, it is virtually impossible to become a professional bodybuilder without the use of performance-enhancing substances. Therefore, the relationship between performance-enhancing substances and bodybuilding yields valuable insights into the realities of performance-enhancing drug use and general society.

B. THE ANTI-ENHANCEMENT NARRATIVE AND SPORT; BODYBUILDING

“There is no such thing as the ‘perfect body’ . . . But I’m gonna chase it as hard as I can.”²³⁴ These are the words of seven-time Mr. Olympia champion,²³⁵ Phil “The Gift”²³⁶ Heath, while explaining his motivation for pursuing a sport which does not enjoy the mainstream popular status of sports such as baseball or football.²³⁷ Bodybuilding²³⁸ is a unique

229. Owen Gibson, *Russian Athletics: IAAF Upholds Ban Before Rio Olympics*, GUARDIAN (June 17, 2017), <https://www.theguardian.com/sport/2016/jun/17/russia-rio-olympics-ban-doping-iaaf-sebastian-coe>.

230. See ICARUS, *supra* note 224 (explaining the state sponsored Russian doping program).

231. Rebecca R. Ruiz, *Russians No Longer Dispute Olympic Doping Operation*, N. Y. TIMES (Dec. 27, 2016), https://www.nytimes.com/2016/12/27/sports/olympics/russia-doping.html?_r=0.

232. See *supra* note 130, at 1492.

233. *Id.*

234. GENERATION IRON, *supra* note 215.

235. See generally MR. OLYMPIA, <http://mrolympia.com/2018/> (last visited Oct. 11, 2018).

236. Heath earned this nickname due to being “genetically bequeathed with good bodybuilding genes: narrow joints and long attachments for proportion and big muscle bellies for bulge.” Branch, *supra* note 2. Heath first won the Mr. Olympia competition in 2011 and defended his title through the 2017 Mr. Olympia. Monica Andrade, *Watch the Emotional Moment When This Bodybuilder Won His 7th Mr. Olympia Title*, MEN’S HEALTH (Sep. 18, 2017), <https://www.menshealth.com/fitness/mr-olympia-phil-heath-arnold-schwarzenegger>.

237. GENERATION IRON, *supra* note 215.

238. *Our Disciplines: Bodybuilding*, INT’L. FED’N. OF BODYBUILDING AND FITNESS [hereinafter IFBB], <http://www.ifbb.com/our-disciplines> (last visited Mar. 1, 2015). For more information on the different categories of the sport, The International Federation of Bodybuilding and Fitness (IFBB) lists the official “bodybuilding” categories as: Bodybuilding, Classic Bodybuilding, Women Fitness, Men Fitness, Women Bodyfitness, Men’s Physique (and as of 2015, Women’s Physique); see also *IFBB Rules for Bodybuilding and Fitness*, IFBB, <http://ifbb.com/wp-content/uploads/RULES/IFBB-General-Rules->

combination of sport and art²³⁹ often misunderstood outside of its community of athletes and fans. While outsiders see people with freakishly large, “disgusting”²⁴⁰ bodies walking on a stage, insiders see years of grueling work and dedication, endless dietary restrictions, and muscle-tearing training routines all leading to an ephemeral moment at the competition stage.

What both outsiders and insiders see, however, is what makes this sport unlike any other. While doping incidents occur in almost all sports,²⁴¹ performance-enhancing drugs are immediately associated with the word *bodybuilding*.²⁴² As noted previously, one of the justifications for anti-doping policy is that it gives the user an unfair advantage.²⁴³ In professional bodybuilding, however, *not* taking performance-enhancing drugs places a bodybuilder at a severe disadvantage in relation to his or her competitors.²⁴⁴

To understand the complex role of performance-enhancing drugs in bodybuilding, it is necessary to understand its mechanics. The goal of bodybuilding is not for the athlete to lift more weight than an opponent, or to run or swim faster than an opponent. The goal of bodybuilding is for athletes to increase their muscle mass as much as possible, while retaining proportionality and symmetry.²⁴⁵ The International Federation of Bodybuilding and Fitness (IFBB)—the regulatory body in charge of regulating professional bodybuilding competitions²⁴⁶—describes the process through which bodybuilders achieve their impressive physiques:

Athletes train to develop all bodyparts [sic] and muscles to maximum size but in balance and harmony. There should be no “weak points” or underdeveloped muscles. Moreover, [athletes] should follow a special pre-competition training cycle, to decrease the bodyfat [sic] level as low as possible and remove the underskin [sic] water to show the quality of the muscles: density, separation and definition. [T]he physique... should be proportionally built. It means broad shoulders and narrow waist as well as adequately long legs and shorter upper body.²⁴⁷

2018.pdf; *Main Events*, MR. OLYMPIA, <http://mrolympia.com/2018/mr-olympia> (last visited Oct. 11, 2018). [The main categories of the Mr. Olympia competition are: Mr. Olympia, Fitness Olympia, Figure Olympia, Bikini Olympia, 212 Showdown, Women’s Physique, Men’s Physique.]

239. See GENERATION IRON, *supra* note 215.

240. See, e.g., Albert Wolfgang, *Bodybuilding is Disgusting*, EVOLUTIONARY, <http://www.evolutionary.org/bodybuilding-is-disgusting/> (last visited Mar. 19, 2015).

241. See *supra* notes 144–56 and accompanying text.

242. See generally GENERATION IRON, *supra* note 215.

243. See *The Code*, *supra* note 108.

244. In addition to the multiple statements by professional bodybuilders supporting this proposition, it is well-known in the community of bodybuilding enthusiasts that it is virtually impossible to compete in the professional realm of bodybuilding without the use of steroids and other performance-enhancing drugs. See George Spellwin, *Jay Cutler Reveals Pro Bodybuilding Steroid Secrets*, ELITEFITNESS, <https://www.elitefitness.com/articles/jay-cutler-pro-bodybuilding/> (last visited June 4, 2017).

245. See IFBB, *supra* note 238.

246. *Id.*

247. *Id.*

Although this has never been the subject of rigorous clinical trials,²⁴⁸ it is common knowledge in the bodybuilding community that the high muscle mass and low body fat exhibited by bodybuilders is due to the use of performance-enhancing substances.²⁴⁹ Nevertheless, despite the widespread use of performance-enhancing drugs in bodybuilding, the IFBB officially adopted the WADA code and thus officially prohibits doping.²⁵⁰

Professional bodybuilding is as competitive as any other professional sport.²⁵¹ An athlete attempting to make the leap from amateur to professional will depend on gaining sponsors to support a lifestyle which requires a significant economic investment.²⁵² The sport is also not very lucrative; only the winners of the most prestigious professional competitions receive significant cash prizes.²⁵³ However it is nearly impossible to maintain professional bodybuilder status and obtain sponsorships without the use of anabolic steroids and other performance-enhancing substances.²⁵⁴

248. Mehlman, et al., *supra* note 36, at 19. In the 60s and 70s the first studies examining anabolic steroids' potential for building muscle yielded conflicting results. *Id.* However, anecdotal accounts provided significant evidence that the use of anabolic steroids resulted in markedly increased muscle mass when used in sports such as weight lifting. *Id.*

249. See *supra* notes 261–74.

250. “The IFBB Is A Signatory To The World Anti-Doping Agency (WADA) Code.” IFBB, *supra* note 238, <http://www.ifbb.com/anti-doping-rules/>.

251. See Matt Danielsson, *So You Want to Be A Professional Bodybuilder?*, BODYBUILDING.COM (June 16, 2014), <https://www.bodybuilding.com/fun/matt30.htm>.

252. Phil Heath explains that protein foods alone for a professional bodybuilder can cost an average of \$200 per week—in his personal situation from \$60 to \$90 per day—and supplements about \$500 per month. Generation Iron, *Phil Heath Reveals the True Cost of a Pro Bodybuilding Diet*, YOUTUBE (Oct. 26, 2015), <https://www.youtube.com/watch?v=8uozImtxLdE>. Heath estimates that without sponsorships, he would have to spend approximately \$20,000 per year in food and supplements alone. *Id.* This cost is higher when taking into consideration the price of the performance-enhancing drugs some bodybuilders take to get ready for competition; as to this, a 2001 New York Times article quoted former IFBB executive, Wayne DeMilia, saying: “When my guys tell you it costs more than \$25,000 to get ready for a big contest, you think they’re talking about pasta? Human growth hormone costs about \$1,000 a day.” Robert Lipsyte, *Bodybuilding Insider’s Straight Talk on Drugs*, N. Y. TIMES (May 13, 2001), <http://www.nytimes.com/2001/05/13/sports/bodybuilding-insider-s-straight-talk-on-drugs.html>.

253. The Winner of the Mr. Olympia competition in 2017 received a cash prize of \$250,000. *Mr. Olympia Prize Money Hits Record High at \$1MM*, MUSCLE AND FITNESS MAG. <http://www.muscleanfitness.com/athletes-celebrities/news/mr-olympia-prize-money-hits-record-high-1mm>. (last visited July 2, 2017). The prizes athletes who do not place first and those in other categories are significantly more modest. For example, while runner up still walks away with a prize of \$150,000, the sixth place finisher only earns \$35,000 and the tenth place finisher walks away with \$16,000. Chris Roling, *Mr. Olympia 2016 Results: Prize Money Payouts for Winner and Top Contestants*, BLEACHERREPORT.COM (Sep. 18, 2016), <http://bleacherreport.com/articles/2664365-mr-olympia-2016-results-prize-money-payouts-for-winner-and-top-contestants>. (last visited July 2, 2017).

254. It only takes a cursory review of social media pages and reading community commentaries to understand that fans are well-aware of bodybuilders’ use of performance-enhancing drugs, even when bodybuilders deny it. The Facebook page of the bodybuilding magazine Muscle and Fitness posted an article referencing bodybuilder Mike O’Hearn—who claims that he does not use steroids—with the headline “The Titan of the Fitness World Says He’s All Natural.” One response to the headline left by a Facebook user reads: “yeah and Madonna is still virgin.” Another one reads: “Sorry gents at his age he juices hgh and test for SURE. You can’t scientifically can’t [sic] retain that much muscle at that age without ‘test boost’. Also who cares if he juices he’s successful.” See Facebook.com, *Muscle and Fitness: The Titan of the Fitness World Says He’s All Natural*, (July 23, 2017), <https://www.facebook.com/MuscleandFitnessMag/> (last visited July 2, 2017) (on file with Author).

Nevertheless, bodybuilders avoid giving a direct response when publicly confronted with the issue of doping, as it is considered a “taboo” topic in the sport.²⁵⁵ This is not surprising, given the fact that the use of anabolic steroids and other substances in bodybuilding is not only illegal,²⁵⁶ but against IFBB and WADA policy.²⁵⁷ Moreover, as necessary as performance-enhancing substances may be to become a professional bodybuilder, if a bodybuilder gets caught doping, he or she may also lose valuable sponsorships and titles which are crucial for a successful bodybuilding career.²⁵⁸ In other words, these athletes live in a perpetual catch-22 world.

Although it is unlikely that any current professional bodybuilder would openly admit to the use of performance-enhancing substances, several former champions of the prestigious Mr. Olympia competition²⁵⁹—the “Super Bowl of Bodybuilding”²⁶⁰—have openly admitted to doping. For example, Arnold Schwarzenegger—Mr. Olympia champion from 1970 to 1975 and 1980 admitted using steroids to compete.²⁶¹ He stated that he used them approximately eight weeks before competition because “it was something that everybody had to do in order to get an equal chance.”²⁶² Another Mr. Olympia champion, Dorian Yates, who held the Mr. Olympia title from 1992 to 1997—after anabolic steroids were included in the Controlled Substances Act²⁶³—admitted to his use of performance-enhancing substances, saying that at that time he used “the same [drugs] as everybody else.”²⁶⁴

The ongoing relationship between performance enhancing drugs and bodybuilding is not in question. The IFBB has been trying for decades to receive full accreditation as an Olympic sport.²⁶⁵ However, it is rumored that

255. See GENERATION IRON, *supra* note 215.

256. See *supra* notes 194–95, 250, 161 and accompanying text.

257. See IFBB, *supra* note 238.

258. This is also true in other sports. See Simon Hart, *Lance Armstrong Dropped by Sponsors Nike Following ‘Insurmountable Evidence’ in USADA Report that he Doped*, TELEGRAPH (Oct. 17, 2012), <http://www.telegraph.co.uk/sport/othersports/cycling/9614878/Lance-Armstrong-dropped-by-sponsors-Nike-following-insurmountable-evidence-in-USADA-report-that-he-doped.html>; See also Rebecca R. Ruiz, *Olympic History Rewritten: New Doping Tests Topple the Podium*, N. Y. TIMES (Nov. 21, 2016), <https://www.nytimes.com/2016/11/21/sports/olympics/olympics-doping-medals-stripped.html>.

259. *Joe Weider’s Olympia*, MR. OLYMPIA, <http://mrolympia.com/2018/mr-olympia>, (last visited May 20, 2018).

260. See GENERATION IRON, *supra* note 215.

261. Joanne Padgett, *Arnold Schwarzenegger Admits Steroids Use*, YOUTUBE, https://www.youtube.com/watch?v=Fp9Z_KGkxFo (last visited Mar. 15, 2016).

262. *Id.*

263. The Anabolic Steroids Control Act was passed in 1990. See Anabolic Steroids Control Act of 1990, Pub. L. No. 101-647, § 2, 104 Stat. 4789 (1990).

264. Alexander Khaykin, *Dorian’s Seminar in Gynamite Gym, III*, YOUTUBE, <https://www.youtube.com/watch?v=7PY1VnOUdOU> (last visited Mar. 15, 2015); Alexander Khaykin, *Dorian’s Seminar in Gynamite Gym, II*, YOUTUBE, https://www.youtube.com/watch?v=S4Nh3HGLCwY&feature=player_detailpage#t=477s (last visited Mar. 15, 2015). Yates describes the specific substances he used and their amounts. *Id.* He states that at the time at which he weighed 308 pounds, he took 1000 milligrams of testosterone and 50 milligrams of Dianabol—an anabolic steroid—for five weeks, he decreased the dosage gradually, took a break from using the substances for three weeks and began the cycle again. *Id.* He also stated that he took “8 units of growth hormone a day.” *Id.*

265. Chris Baker, *They’re Pumped Up for Shot at Olympics: Bodybuilding: After 44 Years of Lobbying, Enthusiasts Might Finally Get a Vote by the IOC*, L.A. TIMES (July 14, 1990), http://articles.latimes.com/1990-07-14/sports/sp-115_1_olympic-committees.

this has not happened despite the IFBB's anti-doping policy and adoption of the WADA Code²⁶⁶ precisely because of the sport's reputation as it relates to its athletes' use of performance-enhancing substances.²⁶⁷ Bodybuilding's relationship to performance-enhancing substances is well-documented in the literature.²⁶⁸ In fact, the sport was born²⁶⁹ and has evolved to its present form alongside these substances.²⁷⁰ Author Charles Yesalis describes the beginning of the relationship between steroids and bodybuilding in the early 1950s:

According to several interview reports experimental use of the new testosterone preparations began among West Coast bodybuilders in the early 1950s (Wright, 1978). Also suggestive of anabolic steroid use are physique photos showing highly significant changes over relatively short periods in the muscle mass of established elite bodybuilders. Since then, bodybuilding has been and continues to be strongly and consistently linked to steroids use, as has the sport's most well-known participant, Arnold Schwarzenegger. The elite bodybuilding community has maintained its position at the 'cutting edge' of experimentation with performance-enhancing drugs. By the early 1980s and beyond, the use of human growth hormone (hGH) was well established on that community's drug menu.²⁷¹

To further underscore the use of performance-enhancing substances in bodybuilding, it is worth noting that there are bodybuilding organizations and competitions which explicitly market themselves as "natural" bodybuilding competitions.²⁷² One of them, the International Natural

266. *Anti-Doping Rules*, INT'L FED'N OF BODYBUILDING AND FITNESS, <http://www.ifbb.com/anti-doping-rules/> (last visited May 21, 2017).

267. The IFBB has been trying to achieve official Olympic recognition for bodybuilding as a sport for decades. See Baker, *supra* note 265. "Anita Defranz, an IOC member from Los Angeles, doubts that bodybuilding will be accepted [as an Olympic sport] 'as you might imagine, (getting Olympic recognition) is a rather long and difficult task... [also] For example, some sports have drug abuse problems and this might be one sport that would fit into that category.'" *Id.* The constant efforts by the IFBB have so far earned it the recognition of the Panamerican Olympic Organization. *Breaking News: The IFBB Has Been Recognized by the Panamerican Olympic Organization*, EVOLUTION OF BODYBUILDING (Nov. 3, 2015), <https://www.evolutionofbodybuilding.net/breaking-news-the-ifbb-has-been-recognized-by-the-pan-american-olympic-organization/> (last visited June 6, 2017).

268. Even books dedicated to the discussion of anabolic steroids in general often make reference to bodybuilding explicitly to explain their effects on the human body. See, e.g., TAYLOR, *supra* note 93 at 15. Explaining the androgenic effects of testosterone on women, Taylor states: "In exceptionally large doses, testosterone does produce male characteristics in women. This can be seen in women bodybuilders." *Id.*

269. Mr. Olympia champion Dorian Yates explains that the pervasiveness of anabolic steroid use in bodybuilding has been part of the sport since its very inception; Yates explains that Larry Scott—who became the first Mr. Olympia champion in 1965—"is on record saying that he used steroids for that." London Reel, *Dorian Yates – Steroids Use*, YOUTUBE (Jan. 7, 2014), <https://www.youtube.com/watch?v=m2PzkGKvdcE> (last visited Mar. 17, 2018).

270. Charles E. Yesalis & Michael S. Bahrkle, *History of Doping In Sport*, 24 INT. SPORT STUD. 42, 49–50 (2002).

271. *Id.*

272. See *History: Amateur Bodybuilding Association*, INTERNATIONAL NATURAL BODYBUILDING ASSOCIATION, <https://naturalbodybuilding.com/history/> (last visited Apr. 21, 2015).

Bodybuilding Association,²⁷³ goes as far as exclaiming on its website that it is “the only organization that really tests and shows the failed athletes!”²⁷⁴

The bodybuilding example illustrates several reasons why it is wrong to use unsound philosophical and moral justifications to support anti-enhancement law and policy. For example, sports organizations, including the IFBB,²⁷⁵ decry the use of performance-enhancing drugs as against human dignity, the qualities of a true athlete and the spirit of sport.²⁷⁶ Some commentators even believe that bodybuilding is not a sport at all. However, if enhancement were truly incompatible with sport as a concept and as an institution—in other words, against the *essence* of sport—there would have been no performance-enhancement in sports prior to the official prohibition of doping by the IOC. In fact, under this definition of sport, the Ancient Olympics would not have been a sports event at all.²⁷⁷ Organized sport traces its roots to the Ancient Olympic Games,²⁷⁸ which are considered the birth of sport as we know it today.²⁷⁹ The Ancient Olympics were a tribute to the highest ideals of sportsmanship and honor.²⁸⁰ It was a serious transgression to cheat because it brought dishonor to the athlete and to the god Zeus to whom the Games were dedicated.²⁸¹ Notably, however, the use of performance-enhancing substances was widespread in ancient sport, including the ancient Olympics²⁸² and it was not considered cheating.²⁸³ The belief that doping is against the nature of sport goes against the fact that the use of performance-enhancing drugs in sport has been pervasive throughout human history. As Mehlman notes, “[I]t is only in the last fifty years or so that the notion that drug use is incompatible with sports has become fashionable.”²⁸⁴

Bodybuilding also illustrates a particularly disturbing issue arising from the current regulatory scheme of performance-enhancing drugs. The

273. *Id.*

274. NATURALBODYBUILDING.COM, <http://www.naturalbodybuilding.com> (last visited Apr. 21, 2015) (on file with author). The INBA even had a “hall of shame” in which it showed images of athletes who were banned for life due to testing positive for prohibited substances. *Hall of Shame*, NATURALBODYBUILDING.COM, <https://naturalbodybuilding.com/hall-of-shame/> (last visited Apr. 21, 2015) (on file with Author).

275. See *Anti-Doping Rules*, *supra* note 266.

276. See *supra* notes 181 to 167 and accompanying text.

277. See Yesalis & Bahrkle, *supra* note 270, at 42-43.

278. The Ancient Olympic Games took place between 776 B.C. and 395 A.D. in the ancient Greek city of Olympia. JUDITH SWADDLING, *THE ANCIENT OLYMPIC GAMES* 7 (3d ed. 1999) (1984).

279. The Ancient Olympics took place every four years in ancient Olympia between 117 BC and AD 393; they were later restarted in 1896 as the modern Olympic Games. JOHN HORNE, *UNDERSTANDING THE OLYMPICS* 50, 67, 75 (2012).

280. In fact, athletes who cheated were shunned and their transgression recorded as a warning to others of the consequences. Yesalis & Bahrkle, *supra* note 270, at 42.

281. See SWADDLING, *supra* note 278, at 10.

282. Mehlman states that “Greek athletes in the third century B.C. are reported to have taken mushrooms to enhance performance. Philostratos describes how Olympic athletes ate bread laced with the juice of opium poppies. Pliny the Younger . . . mentions runners who swallow a decoction made from hippuris, which may be related to ephedrine.” MEHLMAN, *supra* note 44, at 121 (citing Panayiotis J. Papagelopoulos, Andreas F. Mavrogenis & Panayotis N. Soucacos, *Doping in Ancient and Modern Olympic Games*, 27 *ORTHOPEDICS* 1226–31 (2004)).

283. Yesalis & Bahrke, *supra* note 270.

284. Mehlman, *supra* note 36, at 41.

current framework allows for those in positions of power to publicly denounce the use of performance-enhancing substances, while simultaneously fostering environments and policies which promote their use. This allows them to benefit from their hypocritical stance.²⁸⁵ For example, although the IFBB officially prohibits the use of performance-enhancing drugs,²⁸⁶ it is understood that the organization would not profit as much from athletes with an average physique—a physique developed without performance-enhancing drugs.²⁸⁷ As such, there is scant incentive for those in positions of power in the organization to enact policies with a meaningful impact in stopping athletes from doping.²⁸⁸ An athlete who reaches the mythical “Olympian” status and makes sports history with the use of performance-enhancing substances has everything to lose if he or she is caught doping. A sports organization, on the other hand, has very little to lose if it simply washes its hands when an athlete is caught doping. It need only point to its anti-doping policies and denounce the cheater. By then, the sports organization has already reaped the immense financial benefits the disgraced athlete brought them and can simply move on to the next athlete.

Another issue evident from the bodybuilding case study is the common misconception that drugs make the athlete. In addition to the psychological issues that arise naturally from hyper-competitive environments,²⁸⁹ athletes

285. This moral hypocrisy was identified by philosopher Reinhold Niebuhr as prevalent in groups in positions of privilege: “The moral attitudes of dominant and privileged groups are characterized by universal self-deception and hypocrisy. The unconscious and conscious identification of their special interests with general interests and universal values . . . is equally obvious in the attitude of classes. The reason why privileged classes are more hypocritical than underprivileged ones is that special privilege can be defended in terms of the rational ideal of equal justice only, by proving that it contributes something to the good of the whole. Since inequalities of privilege are greater than could possibly be defended rationally, the task of inventing specious proofs for the theory that universal values spring from, and that general interests are served by, the special privileges which they hold.” REINHOLD NIEBUHR, *MORAL MAN AND IMMORAL SOCIETY: A STUDY IN ETHICS AND POLITICS* 117 (1934).

286. See IFBB, *supra* note 238.

287. The same is true for other sports such as football. In observing the apparent tolerance for doping in football, George Vescey notes that “football has a great appeal because of the violence—with the commentator John Madden chortling ‘biff-bam-pow’ as 300-pound, or 135-kilogram, human projectiles crash into each other. Sane people stay indoors and marvel at the great spectacle from frozen Green Bay. We also make the assumption that players must need massive doses of painkillers, stimulants and bodybuilding chemicals to risk their necks to entertain us. I don’t suppose there is one football coach in America—from junior high school up—who can really afford to ask how his players grew so big so young. Don’t ask don’t tell.” *Id.*

288. Just as in other sports, athletes use anabolic steroids weeks or months before they are tested; by the time the test comes, the athletes will likely test negative. See TAYLOR, *supra* note 71, at 63. Taylor explains that during the congressional hearings on steroids in the late 80s, a player who testified before the Judiciary Committee explained that this is the technique which allowed football players who were doping avoid getting caught. *Id.* Presumably, if testing were truly random in professional Bodybuilding, athletes may test positive more often. Jay Cutler: *No Longer Disqualified!*, BODYBUILDING.COM (Nov. 2001), <http://www.bodybuilding.com/fun/arc10-2001.html> (last visited Mar. 1, 2015) (on file with Author). The lack of incentive to truly enforce anti-doping policies is evident in the case of Mr. Olympia champion, Jay Cutler, who was stripped of his second-place title in 2001 because he tested positive for a banned diuretic. *Id.* Once Cutler sought to pursue legal action, the IFBB suddenly nullified the test results because, according to them “the world-renowned laboratory employed by the IFBB [was] no longer designated as an official accredited lab by the International Olympic Committee.” *Id.*

289. See Simon M. Rice et al., *The Mental Health of Elite Athletes: A Narrative Systematic Review*, 46 *SPORTS MED.* 1333 (2016).

also have to endure knowing that people believe that their achievements are meritless due to their alleged use of performance-enhancing substances. In the words of professional bodybuilder Victor Martinez: “[People outside the bodybuilding community] don’t know that we eat seven, eight, nine thousand calories a day. They don’t know that we’re in the gym two, three times a day, six days a week. Right away they want to just diminish your work by going to the one little thing and brush it off. They’re saying . . . ‘it’s because they are taking steroids.’”²⁹⁰

Anabolic steroids in the bodybuilding context simply increase the capacity for muscle growth.²⁹¹ However, the external stimuli required for muscle growth at the professional bodybuilding level is significant and involves among other things, exercising with heavy weights and meticulous workout programs for several hours and several times per day, eating very strict diets,²⁹² and practicing posing routines which are extremely taxing on the bodybuilder’s body.²⁹³ Moreover, as competitions get closer, bodybuilders’ diets become stricter to the point in which water intake is severely restricted to a dangerous level.²⁹⁴ In light of the grueling regimen that bodybuilders endure, it is clear that the use of anabolic steroids alone would not enable any person to look like a professional bodybuilder. As professional bodybuilder Ben Pakulski bluntly states, just by using steroids “you couldn’t do what I do.”²⁹⁵

Another example exposing the fallacy of this misconception is found outside of sports. Some of the most brilliant people in history were known to use drugs while they did their groundbreaking work; Francis Crick was reportedly under the influence of LSD when he and James Watson discovered the DNA double helix.²⁹⁶ Moreover, the routine use of cocaine by Sigmund Freud, the father of psychoanalysis, is believed to have influenced his work.²⁹⁷ Yet, it would be surprising to find many people claiming that

290. GENERATION IRON, *supra* note 215.

291. *Id.*

292. *Id.*

293. *Id.*

294. See *How Can You Cut Water Weight the Last Week Before a Contest?*, BODYBUILDING.COM (Aug. 9, 2018), <https://www.bodybuilding.com/content/how-can-you-cut-water-weight-the-last-week-before-a-contest.html> (last visited Feb. 27, 2009). This practice known as “water cutting” takes bodybuilders to severe levels of dehydration to reduce the layer of water between skin and muscle; needless to say, this practice is particularly dangerous for bodybuilders. See e.g., *Shawn Rhoden Will Not Be Competing at the Arnold Classic 2018*, GENERATION IRON: FITNESS NETWORK (Feb. 19, 2018), <https://generationiron.com/shawn-rhoden-announces-arnold-classic-dehydration-illness/> (last visited Mar. 17, 2018). In 2018, Shawn Rhoden—a top bodybuilder and contender for the Arnold Classic title and the 2018 Mr. Olympia champion—withdraw days away from the competition due to a combination of factors, including “extreme dehydration” which coupled with the flu made him rush to the hospital. *Id.* See also Adam Wells, *Mr. Olympia 2018 Results: Shawn Rhoden Wins Event’s Top Prize* (Sep. 16, 2018), <https://bleacherreport.com/articles/2795943-mr-olympia-2018-results-shawn-rhoden-wins-events-top-prize>.

295. GENERATION IRON, *supra* note 215.

296. See generally MICHAEL BROOKS, *FREE RADICALS: THE SECRET ANARCHY OF SCIENCE* (The Overlook Press 2013) (2011); Nicholas Wade, *A Peak into the Mind Behind the Genetic Code*, N. Y. TIMES (July 11, 2006), <http://www.nytimes.com/2006/07/11/science/11book.html>.

297. Scott Oliver, *A Brief History of Freud’s Love Affair with Cocaine*, VICE (June 23, 2017), https://www.vice.com/en_us/article/payngv/a-brief-history-of-freuds-love-affair-with-cocaine. See

Crick and Freud's work was the result of their drug use. It would also be surprising to find many people claiming that anyone could do what Crick and Freud did merely through the use of drugs.

This widespread misconception, however, is one of the most damaging effects of the anti-enhancement narrative. Athletes such as Martinez are routinely forced to defend the product of their work as not being the result of cheating, but rather, the result of a combination of factors which enable naturally talented athletes to reach their full potential.²⁹⁸ The issue, however, is not the belief that “drugs make the super athlete” in and of itself—in fact, to those vaguely familiar with sports in general, the falsity of this statement may appear obvious. Rather, the issue which arose from the history and underlying justifications for anti-doping law and policy at its innermost core is the belief that doping negates the fruits of the athletes' efforts—despite the fact that the drugs alone will not enable an average athlete to excel at the elite level. This belief implicitly strips all of the value from athletes' accomplishments and ignores all the other qualities elite and accomplished athletes possess—such as hard work, perseverance, grit and natural genetic superiority—without which athletes would not reach the proverbial Mount Olympus of athletics. This is fundamentally unfair to athletes and severely detrimental to their psychological and social well-being. Further, the arbitrary nature of anti-doping policy makes the internal struggle which athletes in general have to endure even more nerve-racking. For example, Maria Sharapova had her entire career and achievements questioned after she tested positive for a substance which had been banned only a few months before she tested positive for it.²⁹⁹

Moreover, elite, superstar-level athletes who take performance-enhancing drugs are already uniquely talented—much in the same way people such as Crick and Freud were in their respective disciplines—even without the use of drugs. One such example is that of baseball player Barry Bonds. Despite being a famous and greatly talented athlete, Bonds nonetheless turned to steroids.³⁰⁰ He realized that his competitors were using steroids; as such, he started using steroids, not because he was not already talented or to be “competitive,” but merely to crush what he perceived as “inferior” competition.³⁰¹ Again, Bonds' example shows that it is unlikely that a person with average capabilities—whether it be average genetics, motivation, or work ethic—will ever become competitive at an elite level just by using performance enhancing drugs.

generally HOWARD MARKEL, *AN ANATOMY OF ADDICTION: SIGMUND FREUD, WILLIAM HALSTED, AND THE MIRACLE DRUG, COCAINE* (Vintage 2012) (2011).

298. GENERATION IRON, *supra* note 215. Jim Stoppani explains: “[A]nabolic steroids don't make what professional bodybuilders do easier. It simply allows them to take it to that extreme level.” *Id.*

299. See Clarey & Tierney, *supra* note 7; Paul Newman, *Maria Sharapova: Meldonium Story Doesn't Add Up as Complete Incompetence Leads to Two-Year Ban*, INDEPENDENT (June 9, 2016), <http://www.independent.co.uk/sport/tennis/maria-sharapova-two-year-drug-ban-meldonium-story-doesnt-add-up-a7071881.html>.

300. Michiko Kakutani, *Barry Bonds and Baseball's Steroids Scandal*, N.Y. TIMES (Mar. 23, 2006), <http://www.nytimes.com/2006/03/23/books/barry-bonds-and-baseballs-steroids-scandal.html>.

301. *Id.*

Amateur cyclist, actor, and producer Bryan Fogel found this out the hard way.³⁰² In 2014, Fogel placed 14th in the *Haute Route*,³⁰³ one of the most prestigious amateur bicycle races in the world.³⁰⁴ He set out to compete in the race again the following year, this time while taking performance-enhancing substances.³⁰⁵ Although Fogel's intent in doping to compete was to expose the WADA doping testing system as a failure, he nonetheless expected to significantly improve his performance during the race.³⁰⁶ In his second try, after months of professional training and a meticulously-planned doping regime, Fogel finished 27th—thirteen places lower than during his first, doping-free attempt.³⁰⁷ His reflections at the end of his journey are insightful. Regarding those cyclists who finished in the top spots of the *Haute Route*, Fogel reflected: "I feel that I'm really stronger this year . . . but I'm not beating 'em. They're in a different [league]."³⁰⁸ As to the effect of doping on his chances at competing with those at the top, Fogel concluded: "I could have been 21 years old and taken all [the performance-enhancing drugs] in the world, and I was still not going to be a Tour de France champion. *It doesn't matter.*"³⁰⁹

Opponents of performance-enhancing substances would say that the issues facing athletes as it relates to doping are precisely why such substances need to be banned and anti-doping policies need to be strictly enforced. They presume that it is in the athletes' best interests to ensure that performance-enhancing substances are effectively banned to preserve the athlete's honor, to prevent those at the top from becoming "unreachable," and to preserve the integrity of the sport in the eyes of the public. This perspective, however, is entirely circular and ignores the reality of human history and nature. The reality is that no matter how many restrictions, laws, and regulations there are regarding the use of performance-enhancing substances, everyday people and professional athletes have sought enhancement since antiquity and will continue to do so.³¹⁰ Moreover, in light of the real and widespread use of steroids, this argument continues to present sports in a false light before the eyes of the public, which in turn continues to harm athletes.

The question then becomes whether the underlying moral and ethical justifications for anti-drug law and policy do more harm than good—regardless of society's desire to continue to regulate the use of drugs—in light of a changing society. Bodybuilding offers important insights as juxtaposed to the current situation facing American society. Maxwell Mehlman noted almost a decade ago that enhancement could become a necessity in the face of an increasingly competitive economic

302. See generally ICARUS, *supra* note 234.

303. See Netflix Documentarian Cheats Cycling Plus Writer Out of 298th place in Bike Race, CYCLING PLUS, <https://www.cyclingplus.com/articles/netflix-documentarian-cheats-cycling-plus-writer-out-of-298th-place-in-bike-race/>.

304. ICARUS, *supra* note 234.

305. See generally *Id.*

306. *Id.*

307. *Id.*

308. *Id.*

309. *Id.* (emphasis added).

310. See *supra* notes 270, 282.

environment.³¹¹ In light of the recent trends showing a disappearing middle class³¹² and rising competition in the job market,³¹³ Mehlman's observation may be the reality; enhancement may no longer be an option to some.³¹⁴ The question that arises from this observation is: what role will the deeply-flawed anti-drug laws and policies of today play in a society which is increasingly forced to turn towards enhancement?

C. THE ANTI-ENHANCEMENT NARRATIVE AND SOCIETY

Contemporary American society is made from the same recipe which makes professional sports a perfect niche for the widespread use of performance-enhancing substances: a hyper-competitive environment, high stakes, and a small number of opportunities to succeed.³¹⁵ Fortunately, the lessons learned from the bodybuilding world are not confined to it or even to the realm of professional sports. Considering the lessons learned from bodybuilding and the history of anti-drug law in American society in conjunction, a dire picture emerges.

At the same time Nixon declared the War on Drugs something else was happening. The American economy had seen growth in wages from the end of World War II, but that growth stopped in 1970.³¹⁶ Thereafter, the wages of those in the top twenty percent of the population—those in jobs requiring a high level of skill³¹⁷—continued to rise, while the remaining 80 percent of the population—those in jobs requiring lower skill levels—stagnated.³¹⁸ As author Peter Temin states, “[T]he low-wage sector . . . was born in 1971 as President Nixon replaced Johnson's War on Poverty with a new War on Drugs.”³¹⁹ The War on Drugs became a tool for repressing the social and economic welfare of poor minorities, most of whom were African American.³²⁰ The War on Drugs became a method of social control.³²¹

This economic trend has continued to today and the current economic scenario is bleak.³²² A Pew Research Center report from 2016 found that “from 2000 to 2014 the share of adults living in middle-income households fell in 203 of the 229 U.S. metropolitan areas” analyzed in the report.³²³ The reasons for the shrinking of the middle class include growing financial inequality and the disappearance of manufacturing jobs.³²⁴ Additionally, the rise of automation technologies has expanded the jobs at the ends of the socio-economic spectrum, those requiring a low level of skill—such as

311. MEHLMAN, *supra* note 44, at 50.

312. *See* TEMIN, *supra* note 9.

313. *See supra* notes 9–14 and accompanying text.

314. MEHLMAN, *supra* note 44, at 50.

315. *See supra* notes 228–38 and accompanying text.

316. TEMIN, *supra* note 9, at 4.

317. Temin calls this top 20% of the population the “FTE Sector” because of “the roles of finance, technology and electronics in this part of the economy.” *Id.* at 8–9.

318. *Id.*

319. *Id.* at 27.

320. *Id.* at 28–29.

321. *Id.* at 37–38.

322. *See* Pew Research Center, *supra* note 11; *see also* ECONOMIST, *supra* note 12.

323. *See* Pew Research Center, *supra* note 11.

324. *Id.*

janitorial work, for which pay is low—and those requiring a high level of skill—such as jobs in senior management, for which pay is high.³²⁵ This has resulted in a significant decline in what were traditionally middle-class jobs.³²⁶

Therefore, securing a sustainable economic position in America today requires availing oneself of every possible advantage; hard work alone is no longer a safe road to success.³²⁷ The great portion of society caught in this situation—especially those who come from a disadvantaged background³²⁸—may seek to take advantage of anything they can, including performance-enhancing substances. The other option for these people is to commit themselves to hard work alone and hope that they do not become part of the harrowing statistics.³²⁹ Those that take the latter option are caught in an impossible situation: achieve what is super-humanly possible through merely human means. On one hand, society tells them that the use of performance-enhancing substances is wrong.³³⁰ On the other hand, those in power—school administrators, bosses, or coaches—constantly raise the bar for individual performance, pushing them to use performance-enhancing substances to climb to an increasingly narrow top.³³¹

The hypocrisy evidenced by those in positions of power in sports is also present in general society. This hypocrisy is notorious at all societal scales, down to the family unit. It is understood that succeeding in the current economic landscape greatly depends on education.³³² Therefore, although likely originating from good intentions, it is undisputed that many of today's parents push their children to an unhealthy limit in order to give them an edge in a world of growing inequality and increasing competition.³³³ Author Ryan Avent eloquently describes how this scenario has unfolded:

The falling acceptance rates and the rising stakes [have] lent a new urgency to the college admissions process. And the more wrenching and decisive those years immediately before matriculation seemed to

325. THE ECONOMIST, *supra* note 12.

326. *Id.*

327. *See supra* notes 10–17 and accompanying text.

328. *See infra* notes 364–72 and accompanying text.

329. *See* ECONOMIST, *supra* note 12; Pew Research Center, *supra* note 11.

330. The idea that the use of performance-enhancing substances is “cheating” is pervasive not only in sports, but also in other competitive realms such as academia. *See* MEHLMAN, *supra* note 44, at 60 (explaining the common belief that the use of steroids in sports is considered cheating); *see also* SCHWARZ, *supra* note 18, at 167 (explaining the stance taken by universities in addressing the illicit use of drugs such as Adderall to improve academic performance by comparing it to the use of steroids in sports).

331. And rising economic inequality is making the top narrow indeed. A study by Emmanuel Saez and Gabriel Zucman found that “the top 0.1% of families now own roughly the same share of wealth as the bottom 90%.” Angela Monaghan, *U.S. Wealth Inequality – Top 0.1% Worth as Much as the Bottom 90%*, GUARDIAN (Nov. 13, 2014), <https://www.theguardian.com/business/2014/nov/13/us-wealth-inequality-top-01-worth-as-much-as-the-bottom-90>. *See generally* Emmanuel Saez & Gabriel Zucman, *Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data* (Nat’l. Bureau of Econ. Research NBER Working Paper Series, Working Paper No. 20265, 2014), <http://gabriel-zucman.eu/files/SaezZucman2014.pdf>.

332. TEMIN, *supra* note 9, at 41.

333. Ryan Avent, *High-Pressure Parenting*, ECONOMIST (Feb./Mar. 2017), <https://www.1843magazine.com/features/highpressure-parenting>.

become, the earlier and more aggressively parents and children prepared their case for the admissions officers. Adolescent years began to fill up with activities including tutoring and extra-curricular engagements, from varsity sports and producing school newspapers to debating, quiz bowls and enough charitable activity to shame a nun. By the age of 17, children [are] expected to have lived a full and complete life, developed their whole selves and undergone one or more personal epiphanies.³³⁴

Recognizing the increasing competitive environment and dwindling opportunities, parents now more than ever feel a continually increasing pressure to push their children to succeed.

This “push” may be through the use of performance-enhancing substances.³³⁵ The ever-higher standards to which parents hold their children,³³⁶ in turn, forces those children—and sometimes the parents themselves³³⁷—to seek performance-enhancing substances such as Adderall—an amphetamine salt combination drug used to treat ADHD—as a cognitive performance enhancer.³³⁸ Children and young adults use drugs such as Adderall to cope with the pressure of a challenging academic or work environment³³⁹ even if they do not have a medical condition requiring their use.³⁴⁰ Parents who turn to drugs for their children may rationalize their own behavior by telling themselves that their children are not enhanced but instead, that their children were “inferior” and that through the use of drugs, they have become “normal.”³⁴¹ As author Alan Schwarz states, drugs such as Adderall have long been known to be more than “just for an ADHD child. It was for his mother, too . . . to provide her parental satisfaction of a job well done.”³⁴²

Another disturbing example of the hypocritical societal attitude towards the use of performance-enhancing drugs is in the context of higher education. The use of drugs intended for the treatment of ADHD, such as Adderall and Ritalin,³⁴³ for cognitive enhancement in universities is the elephant in the

334. *Id.*

335. SCHWARZ, *supra* note 18, at 5, 84–85, 137.

336. Avent, *supra* note 333.

337. SCHWARZ, *supra* note 18, at 84–93.

338. *Attention-Deficit/Hyperactivity Disorder (ADHD) in Children*, MAYO CLINIC, <http://www.mayoclinic.org/diseases-conditions/adhd/diagnosis-treatment/treatment/txc-20196197> (last visited June 4, 2016).

339. SCHWARZ, *supra* note 18, at 5.

340. *Id.* at 5, 84–85, 137.

341. *Id.* 124. Schwarz notes that the advertisement campaigns surrounding medications such as Adderall and Ritalin reinforced this view. *Id.* A pamphlet distributed to parents by their children’s school read: “Parents should be aware that these medicines do not ‘drug’ or ‘alter’ the brain of the child. They make the child ‘normal.’” *Id.*

342. In his book, Schwarz traces the bold advertising campaigns for ADHD drugs such as Adderall, and how they often portrayed the drugs as more than mere treatments for ADHD. One such ad from 2002 read: “‘Thanks to ADDERALL XR, David’s mom is learning a whole new language.’ That language included phrases like, ‘I’m Proud of You,’[and] ‘Good job on your homework!’” *Id.* at 120–21.

343. See *Adderall*, PHYSICIAN’S DESK REFERENCE, <http://www.pdr.net/drug-summary/Adderall-amphetamine-aspartate-monohydrate-amphetamine-sulfate-dextroamphetamine-saccharate-dextroamphetamine-sulfate-1048> (last visited June 4, 2017); *Ritalin*, PHYSICIAN’S DESK REFERENCE,

ivory tower. This situation is facilitated by overly-trusting doctors³⁴⁴ and school administrators who willingly turn a blind eye to the situation.³⁴⁵ As author Alan Schwartz notes, “[M]any doctors are absurdly trusting when diagnosing college students who . . . can feign ADHD symptoms to get a stimulant prescription with remarkable ease.”³⁴⁶ Students are led down this path by a combination of pressure, increasing competition, and the realization that they actually may be at a disadvantage if they do not take the drugs because many of their classmates do.³⁴⁷ Despite the fact that the illicit use of stimulants by students in colleges, graduate schools, and other institutions of higher learning is well-known, it is unlikely that schools will be conducting drug tests anytime in the near future.

The trend becomes more notorious as the academic environment becomes more competitive.³⁴⁸ Medical schools³⁴⁹ and law schools³⁵⁰ are known for the rampant use of stimulants by students.³⁵¹ Regarding Adderall, a commentator notes: “It’s a law student’s steroid In the cutthroat environment of legal education, where a handful of exams can determine their fate, students use it as performance enhancer in hopes of gaining a competitive edge, especially when they think other students are taking it too.”³⁵² The schools’ reactions to the phenomenon vary from the perfunctory condemnation of “cheating”³⁵³ to blatantly ignoring the problem and pretending that it does not exist.³⁵⁴ These reactions are meaningless and only further the problem, considering the fact that these institutions foster hyper-competitive environments³⁵⁵ in an already hyper-competitive and harsh economic scenario.³⁵⁶ They do so, as sports organizations do, while reaping whatever benefits come from improved student performance.

<http://www.pdr.net/drug-summary/Ritalin-LA-methylphenidate-hydrochloride-1003.3225> (last visited June 4, 2017).

344. SCHWARZ, *supra* note 18, at 164–65.

345. Leigh Jones, *Adderall in Law Schools: A Dirty Little Secret*, NAT’L. L. J. (Nov. 3, 2016), <http://www.nationallawjournal.com/home/>.

346. SCHWARZ, *supra* note 18, at 164–65.

347. *Id.* at 162.

348. *Id.* at 226. Schwarz notes: “Dozens of studies since the 1990s have estimated that about 8 to 35 percent of undergraduates take stimulant pills illicitly to try to improve their grades; a reasonable estimate among high-pressure colleges is probably 15 to 20 percent.” *Id.*

349. *Id.* at 212.

350. Jones, *supra* note 345.

351. *Id.*

352. *Id.*

353. SCHWARZ, *supra* note 18, at 167.

354. Jones, *supra* note 345. Jones explains that while the use of drugs to boost performance in the law school setting is well-documented, some schools simply chose to either state that their school is “a drug-free zone where there is zero tolerance for any illegal drug activity” or simply refuse to comment. *Id.* Jones further states that, in response to a request for comment to his article, “a Stanford spokeswoman emailed a statement that said the school . . . was ‘not aware of any students [there] with this issue.’” *Id.*

355. *Id.* See also SCHWARZ, *supra* note 18, at 226. Such as in the work setting, schools have very little incentive to crack down on the use of substances such as Adderall amongst the student population. *Id.*

356. In addition to the rising competition and inequality the United States is experiencing generally, employment opportunities for law school graduates dropped dramatically after the 2008 Great Recession. As of 2017, the situation has not improved significantly. See Jordan Weissman, *Is the Lost Generation of Law School Graduates Still Lost?* SLATE (Apr. 30, 2015), http://www.slate.com/blogs/moneybox/2015/04/30/job_market_for_law_school_grads_what_happened_to_the_lost_generation_of.html; Andrew

Employers—just as school administrators—have virtually no incentive to discourage high-achieving employees from using drugs as cognitive enhancers.³⁵⁷ As an executive put it: “I certainly wouldn’t know that a person is misusing [performance-enhancing drugs] for quote-unquote job enhancement. That wouldn’t be on my radar screen if they’re doing a good job.”³⁵⁸ It is unsurprising that successful, sharp, and productive employees are not in supervisors’ chopping blocks. What may be surprising, however, is how prevalent the practice is in demanding work environments.³⁵⁹ These workers are out there,³⁶⁰ being rewarded for their work, while simultaneously being told that what they do is against work policy.³⁶¹ As Mehlman notes, “[T]he objections to enhancements . . . may seem to wither in the face of marketplace realities and employer demands for growing productivity. Businesses that now test employees to make sure they do not use drugs may soon test them to make sure that they do.”³⁶² Mehlman’s observation, although accurate, would be consistent with a non-hypocritical approach to reality which those in power do not appear willing to embrace.³⁶³

Author Peter Temin in his book *The Vanishing Middle Class*, notes that it is harder for those coming from a disadvantaged background to move up in the socio-economic ladder due to a combination of factors.³⁶⁴ Temin explains that higher education is the pathway to reaching a secure economic position in today’s society,³⁶⁵ but that those from disadvantaged backgrounds

Soregel, *Hiring Outlook Bleak for New Law Grads*, U.S. NEWS (Aug. 18, 2016), <https://www.usnews.com/news/articles/2016-08-18/hiring-outlook-bleak-for-new-law-grads>.

357. SCHWARZ, *supra* note 18, at 226; *see also*, MEHLMAN, *supra* note 44, at 121.

358. SCHWARZ, *supra* note 18, at 226.

359. The issue is so pervasive that there are articles specifically addressing it. *See, e.g.*, Todd Essig, *Managing the Risks of Taking Adderall to Enhance Work Performance*, FORBES (Dec. 6, 2013), <https://www.forbes.com/sites/toddesig/2013/12/06/managing-the-risks-of-taking-adderall-to-enhance-work-performance/#3ff9bcf67eff>.

360. *See, e.g.*, Kate Miller, *The Last All-Nighter*, N. Y. TIMES: OPINIONATOR (Mar. 4, 2013), https://opinionator.blogs.nytimes.com/2013/03/04/the-last-all-nighter/?_r=1.

361. Many workplaces have a “drug free work” policy. *See The NSDUH Report*, SAMHSA, <https://www.samhsa.gov/data/sites/default/files/NSDUH-SR169-WorkUsePandPs-2014/NSDUH-SR169-WorkUsePandPs-2014.htm>. And although drug testing in workplaces has decreased, many employers still test employees for the use of drugs, (including amphetamine salts, the chemical component of Adderall). Lydia DePillis, *Companies Drug Test a Lot Less Than They Used To – Because It Doesn’t Really Work*, WASH. POST (Mar. 10, 2015), https://www.washingtonpost.com/news/work/wp/2015/03/10/companies-drug-test-a-lot-less-than-they-used-to-because-it-doesnt-really-work/?utm_term=.abace7e936d0; *see also Workplace Drug Testing*, DATIA <http://www.datia.org/datia-resources/27-credentialing/cpc-and-cpct/931-workplace-drug-testing.html#q6>.

362. MEHLMAN, *supra* note 44, at 50.

363. Mehlman also discusses the difference between outside pressure, which depending on the circumstances, may become coercion and self-imposed pressure to turn to performance-enhancing substances. *Id.* at 121. Although Mehlman espouses the view that voluntariness is, inherently, a significant factor when people make decisions in situations of high pressure, he recognizes that the line between coercion and mere pressure is one of degree. *Id.* at 116. Moreover, he recognizes that coercion by pressure and direct threats are indistinguishable psychologically by the individual caught in the situation. *Id.* at 118.

364. *See* TEMIN, *supra* note 9, at 40–46.

365. This is unsurprising, considering the fact that “fifty years ago, college graduates and high-school dropouts were similarly likely to work . . . Today a high-school graduate who has never gone to college is four times more likely to drop out of the labor force than he was in 1964.” Derek Thompson,

are significantly less likely to graduate from college than those from privileged backgrounds: “Only one-third of college students from the bottom quarter of households graduate, while two-thirds of students from the top quarter do.”³⁶⁶ Temin also explains that even those from disadvantaged backgrounds who graduate from college still face a steep climb to economic security due to the lack of social connections which can enable those from privileged backgrounds to obtain high-paying jobs more easily.³⁶⁷

Although the social control resulting from the War on Drugs resulted primarily in the disproportionate incarceration of black men,³⁶⁸ the War on Drugs may also constitute a method of social control in the realm of performance-enhancing drugs.³⁶⁹ In this scenario, enhancement may help someone who has not had an advantaged background—a stable childhood and family, and a good education, for example—to be able to reach a level near that of someone from a privileged background. Yet, there is no knowing whether people from disadvantaged backgrounds take performance-enhancing drugs at a higher rate than those from a privileged background. If the opposite is true, the logical conclusion is that the anti-enhancement narrative has evolved into a twenty-first century mechanism of social control to keep those at the bottom of the socio-economic ladder from competing for a place higher up.

Some pediatricians are taking a stance as a response to the lack of resources and proper education in low-income communities. These physicians are openly prescribing medications such as Adderall to low-income children lagging academically, specifically for enhancement purposes.³⁷⁰ One such pediatrician said, “I don’t have a lot of choice We’ve decided as a society that it’s too expensive to modify the kid’s environment. So we have to modify the kid.”³⁷¹ This particular physician sees what he does as fostering social justice, as “evening out the scales a little bit.”³⁷²

In the context of performance in academics, high-income students may use drugs to boost their grades, which through talent, resources, and luck—or a combination thereof—may already be good. As such, these students are using drugs to aim for a place at the very top.³⁷³ For low-income students from disadvantaged backgrounds, performance-enhancing drugs may be used merely for a chance to overcome their environment and lack of resources.³⁷⁴ Therefore, just as the use of performance-enhancing drugs will not make an average person into a sports champion—such as Lance

The Missing Men, ATLANTIC (June 27, 2016), https://www.theatlantic.com/business/archive/2016/06/the-missing-men/488858/?utm_source=atlib.

366. See generally TEMIN, *supra* note 9.

367. *Id.* at 42.

368. *Id.*

369. *Id.* at 37–38.

370. Alan Schwarz, *Attention Disorder or Not, Pills to Help in School*, N. Y. TIMES (Oct. 9, 2012), <http://www.nytimes.com/2012/10/09/health/attention-disorder-or-not-children-prescribed-pills-to-help-in-school.html>.

371. *Id.*

372. *Id.*

373. *Id.*

374. *Id.*

Armstrong³⁷⁵ or Barry Bonds³⁷⁶—drugs also will not make a person with average capabilities a Francis Crick or a Sigmund Freud.

In light of this, the concerns about “fairness” usually cited in support of the anti-enhancement narrative fall under their own weight. Those at the top level of sports are not threatened by the enhanced, otherwise average athlete; those at the top level of academics are also not threatened by the enhanced, otherwise average scholar.

What started mainly as purported concern for “fairness” in sports has evolved through the decades into a toxic social double morality, which simultaneously shuns and promotes the use of performance-enhancing drugs. The socially disadvantaged that buy into the idea that it is morally wrong to use drugs and refuse to take them will inevitably become victims of the new form of social control derived from the anti-enhancement narrative. A narrative born from decades of circular philosophical reasoning, false premises, and poisonous anti-drug policy.

V. THE FUTURE: THERE IS NO EASY WAY OUT

The beginning of this Article set forth a quote by the 2017 Mr. Olympia champion, Phil Heath. A report by the New York Times on Heath’s daily routine states: “People sometimes walk up and touch him, as if unsure if he is a man or a machine. What they do not realize is that beneath the stony exterior and self-assuredness is a squishy sense of anxiety and vulnerability.”³⁷⁷ This assessment of Heath is equally applicable to a model student internally feeling the pressure of increasing competition and dwindling opportunities.³⁷⁸ The example of bodybuilding illustrates that those who succeed through the use of performance-enhancing substances are subject to the added burden of having to defend their achievements from attacks by those who do not understand that performance-enhancing drugs alone will not make someone a Mr. Olympia, a Lance Armstrong, a John F. Kennedy, or a magna cum laude graduate from an Ivy League school. The truth is that drugs do not provide an overwhelming advantage, certainly not nearly enough to make a champion out of a person who does not already have significant natural talents. Despite this reality, the enhanced are forced to keep their journey to themselves as if it were a dirty secret. They are not free to speak their reality to the world, which is that their achievements are a combination of nature and nurture, which can and has, for a large portion of human history,³⁷⁹ been inclusive of enhancement.

375. See William Fotheringham, *Timeline: Lance Armstrong’s Journey From Deity to Disgrace*, GUARDIAN (Mar. 8, 2015), <https://www.theguardian.com/sport/2015/mar/09/lance-armstrong-cycling-doping-scandal>.

376. See Kakutani, *supra* note 300.

377. Branch, *supra* note 2.

378. For example, Ph.D students are at a high risk of developing a mental illness. Elisabeth Pain, *Ph.D. Students Face Significant Mental Health Challenges*, SCIENCE (Apr. 4, 2017), <http://www.sciencemag.org/careers/2017/04/phd-students-face-significant-mental-health-challenges>.

379. Some of the earliest recorded uses of performance-enhancing substances in sport date back to the third century B.C. MEHLMAN, *supra* note 44, at 121, 131.

A great number of scholars have voiced their support for changing the current regulatory scheme governing performance-enhancing substances.³⁸⁰ Athletes and sports science scholars have stated that athletes should be allowed to use performance-enhancing substances under a physician's supervision.³⁸¹ Although it is clear that a change in the regulatory scheme would be in the best interest of athletes and the public, getting there is not simple. Such a discussion is beyond the scope of this Article, but it would largely involve the repeal of the Anabolic Steroids Control Act and its progeny, and leaving regulation of performance-enhancing drugs to the individual professional sports organizations who would have to either: (1) accept the use of performance-enhancing drugs, or (2) continue to prohibit their use while enacting meaningful policies to ensure that no athletes are using them. Policy changes would also have to allow physicians to prescribe cognitive-enhancers for non-therapeutic purposes. Therefore, schools and workplaces would be forced to make the same choice as sports organizations: either (1) to allow students and workers to use drugs for enhancement or (2) enact meaningful policies to crack down on their use. Unfortunately, it is unlikely that any changes will take place in the near future.

Nevertheless, if meaningful change is to come, it will need to arise primarily from a change in the anti-enhancement narrative at the public level. An example of the power of changing public perception to impact policy is the increasingly accepting social attitude towards the recreational use of drugs such as marijuana, which has led to its legalization in several states.³⁸² These changing attitudes have also opened the door to studying the medical applications of marijuana,³⁸³ as well as other drugs previously known only as recreational drugs such as LSD³⁸⁴ and psychedelic mushrooms.³⁸⁵ These changes in policy and social attitudes would have been unimaginable a few decades ago. Now, the change is being driven by everyday people and is opening the door to meaningful policy changes beneficial to society.

Until the public understands that the anti-enhancement narrative is nothing more than an artificial product of decades of failed law and policy which serves no practical purpose, there will be no change. Hoping that the problem will go away—that people will suddenly stop seeking enhancement—is the intellectual equivalent of adopting the ostrich posture.

380. See GENERATION IRON, *supra* note 215; Herschthal, *supra* note 36; McGrew, *supra* note 36.

381. See GENERATION IRON, *supra* note 215.

382. As of July 2017, Colorado, Washington, Alaska, Oregon, California, Maine, Massachusetts, Nevada and the District of Columbia had legalized the use of recreational Marijuana. Melia Robinson, *You Can Now Buy Legal Marijuana in Nevada*, BUS. INSIDER (July 1, 2017), <http://www.businessinsider.com/recreational-marijuana-sales-nevada-2017-6>. On January 2018, Vermont became the latest state legalizing recreational marijuana. *Vermont Gov. Phil Scott Signs Bill Legalizing Marijuana With 'Mixed Emotions.'* CBS NEWS (Jan. 22, 2018), <https://www.cbsnews.com/news/marijuana-legalization-vermont-governor-phil-scott/>.

383. Olga Oskman, *New Medical Marijuana Research Could Greenlight More Uses in Treatment*, GUARDIAN (Dec. 10, 2016), <https://www.theguardian.com/lifeandstyle/2016/dec/10/medical-marijuana-research-new-treatments>.

384. Benedict Carey, *LSD, Reconsidered for Therapy*, N. Y. TIMES (Mar. 3, 2014), <https://www.nytimes.com/2014/03/04/health/lsd-reconsidered-for-therapy.html>.

385. Jan Hoffman, *A Dose of Hallucinogen From a 'Magic Mushroom,' and Then Lasting Peace*, N. Y. TIMES (Dec. 1, 2016), <https://www.nytimes.com/2016/12/01/health/hallucinogenic-mushrooms-psylocybin-cancer-anxiety-depression.html>.

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Attaining Olympus

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The first step is to take the head out of the hole, acknowledge the problems arising from a changing economic environment and an outdated regulatory scheme, and understand that it is unlikely that the failed solutions of the past will magically begin to work now, or in the future. The second step—which this Article aims to facilitate—is to give a voice to those who cannot speak due to decades of harmful and arbitrary anti-enhancement dogma.

