

RAISING THE BAR: WHY THE ANABOLIC STEROID CONTROL ACTS SHOULD BE REPEALED AND REPLACED

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In 1990, against the advice of the American Medical Association, the Food and Drug Administration, the Drug Enforcement Administration, and the National Institute on Drug Abuse, Congress passed the Anabolic Steroid Control Act (ASCA) with the aim of putting an end to “cheating” in sports.¹ Far from eliminating “cheating,” use of anabolic-androgenic steroids (AAS) and performance-enhancing drugs (PED) has proliferated since the ASCA became law.² Previously, about 50 percent of steroid users obtained the drugs through medical professionals, thereby ensuring the quality of the drugs administered.³ As a consequence of prohibition, “virtually all current abusers obtain the substance from the black market.”⁴ Congress’s actions have detrimentally affected the health and well-being of people who, for recreational or professional purposes, make the choice to use these drugs but are left lacking legitimate options. Because this law and its successor, the Anabolic

¹ Rick Collins, *Changing the Game: The Congressional Response to Sports Doping via the Anabolic Steroid Control Act*, 40 NEW ENG. L. REV. 753, 754-55 (2006).

² Caitlin Liu, *Anabolic Steroid Use Grows, Legal or Not*, N.Y. TIMES (Aug. 3, 1996), <http://www.nytimes.com/1996/08/03/business-anabolic-steroid-use-grows-legal-or-not.html>.

³ *Id.*

⁴ *Id.* It is interesting to note in Liu’s article that the line between “use” and “abuse” is not drawn with regard to purpose or quantity, but to legality.

Steroid Control Act of 2004, have failed to meet their stated ends, they ought to be replaced with better legislation.

Unfortunately, informed public discussion of AAS and PED is hindered by widespread myths. "Meathead" stereotypes abound, and the small, isolated culture of physique and strength development has not sufficiently countered their common perception as grunting giants with little concern for more worldly pursuits.⁵ Conversely, AAS and PED remain taboo topics to society at large, and as athlete after athlete makes headlines for failing drug tests or confessing to use, many tend to regard that individual as a cheater.⁶

Meanwhile, the medical community has continued to effectively debunk many myths regarding anabolic steroids, including the absence of evidence for "roid rage" and the extent of physical risk involved.⁷ Steroids do carry risk, but when administered properly, "androgens are safe."⁸ Indeed, it is well accepted that these compounds have significant medical applications, and in addition to treating millions of men suffering from low testosterone, are used to treat some forms of anemia, some breast cancers, osteoporosis, endometriosis, and hereditary angiodema.⁹ However, research too often focuses exclusively on extreme AAS abuse and does not sufficiently denote the correlation between danger and dose.¹⁰ Andreas Büttner and Detlef Thieme, in *Side Effects of Anabolic-Androgenic Steroids: Pathological Findings and Structure-Activity Relationships*, provide a comprehensive list of the possible adverse

⁵ BODYBUILDING: STEREOTYPES, <http://bodybuildingrtvf.tumblr.com/Stereotypes> (last visited Aug. 17, 2014).

⁶ *Performance Enhancing Behaviour*, BBC, http://www.bbc.co.uk/ethics/sport/debate/drawingline_1.shtml (last visited Nov. 18, 2013) (comparing public regard for degrees of body modification in sports).

⁷ E.g., R. Tricker et al., *The Effects of Supraphysiological Doses of Testosterone on Angry Behavior in Healthy Eugonadal Men—A Clinical Research Center Study*, 81 J. CLIN. ENDOCRINOL. METAB. 3754-58 (1996); Jay R. Hoffman & Nicholas A. Ratamess, *Medical Issues Associated with Anabolic Steroid Use: Are They Exaggerated?*, 5 J. SPORTS SCIENCE AND MED. 182-93 (2006).

⁸ Carrie J. Bagatell, *Androgens in Men – Uses and Abuses*, 334 NEW ENG. J. MED. 707-15 (1996) (describing the dangers of androgen deficiency in men as well as the dangers of abuse).

⁹ David W. Brooks, *STERIODS: JUST THE FACTS*, <http://dwb.unl.edu/teacher/nsf/c10/c10links/www.tcada.state.tx.us/research/facts/steroids.html> (last visited Nov. 23, 2013).

¹⁰ Hoffman, *supra* note 7, at 183.

effects of abusing anabolic steroids.¹¹ Lest errant conclusions be drawn, Büttner and Thieme also note that studies of these pathological effects contain several major methodological problems precluding general applicability.¹² These problems primarily include “exorbitant dosages,” lack of reliable data from self-reporting, and difficulty identifying precise causation chains regarding more severe side effects.¹³ It is readily apparent that extreme use can be a cause of many of the purported medical risks. Taken in the aggregate, however, these studies dispel many popular notions as to the intrinsic risks. For these reasons, only a small fraction of the purported risks of anabolic-androgenic steroids can be confirmed in lesser doses. A 1996 study of the effects of supraphysiologic doses of testosterone in forty-three normal men reached landmark conclusions about the safety of steroid use.¹⁴ The subjects were given either 600 milligrams of testosterone enanthate or a placebo for ten weeks.¹⁵ This was the highest amount administered in any study of athletic performance at that time.¹⁶ “Stunn[ing] many in the medical community,” there was an absence of any systemic side effects associated with the androgenic steroids.¹⁷ Bhasin’s team carefully limited the breadth of this study: it did not discount the “potentially serious adverse effects” of other steroids, of a potential synergistic

¹¹ Andreas Büttner and Detlef Thieme, *Side Effects of Anabolic-Androgenic Steroids: Pathological Findings and Structure-Activity Relationships*, 195 HANDBOOK OF EXPERIMENTAL PHARMACOLOGY 459, 464-65(2010) (listing cardiovascular, endocrine/reproductive, male-specific, female-specific, liver, injection-related, psychic/behavioral, kidney, skin, gastrointestinal, musculoskeletal, and other possible side effects).

¹² *Id.* at 460.

¹³ *Id.*

¹⁴ See generally Shalender Bhasin, et al., *The Effects of Supraphysiologic Doses of Testosterone on Muscle Size and Strength in Normal Men*, 335 NEW ENGLAND J. MED. 1, 1 (1996).

¹⁵ *Id.* at 2. Six hundred milligrams is six times a typical dose for testosterone replacement therapy (TRT), thus qualifying as “supraphysiologic,” and is a realistic intake for a recreational steroid user. It remains a small fraction of the quantity consumed by professional bodybuilders and athletes who later suffered from the aforementioned afflictions.

¹⁶ Rick Collins, *Testimony to the United States Sentencing Commission*, UNITED STATES SENTENCING COMM’N, (Apr. 12, 2005), http://www.ussc.gov/Legislative_and_Public_Affairs/Public_Hearings_and_Meetings/20050412-13/Collins.pdf.

¹⁷ Shalender Bhasin et al., *supra* note 6.

effect when taking exogenous testosterone in conjunction with other drugs, or of continued administration for an extended period.¹⁸ A consensus has emerged, however, that many of the side effects associated with anabolic steroid abuse are reversible upon cessation.¹⁹

As a Schedule III controlled substance, anabolic steroids are legally available only by prescription.²⁰ However, relevant laws ensure that elective use is not a valid reason for a qualified professional to provide a prescription.²¹ When compared to the medical and other risks involved in activities permitted by law, this analysis raises the question of why American law at both the federal and state level effectively bans physicians from writing prescriptions for recreational or professional AAS and PED use.²² If past use patterns hold true today, many of these individuals would take advantage of the opportunity to use safer materials than provided by the black market. Therefore, Congress's concern in passing the ASCAs could not have been public health and safety.

ACT I

Historical context sheds more light on the true purpose of the ASCAs. In 1988, Canadian sprinter Ben Johnson tested positive for stanozolol, raising alarm in the United States over the legitimacy of his victory at the Olympic Games in Seoul, South Korea.²³ Concern for "cheating" in sports moved Congress to amend the Controlled Substances Act, including anabolic-androgenic steroids and other performance-enhancing drugs as Schedule III controlled substances.²⁴ To meet Schedule III standards, a substance must have "a potential for abuse less than the drugs or other substances in schedules I and II

¹⁸ *Id.* at 6-7.

¹⁹ Hoffman, *supra* note 7, at 183.

²⁰ 21 U.S.C. § 829(b).

²¹ *See* 21 U.S.C. § 853(b)(1)(a)-(b).

²² 21 U.S.C. § 802(56)(C) (2008); *see, e.g.*, TEX. HEALTH & SAFETY CODE §481.071 (1998); CAL. HEALTH & SAFETY CODE §11153.5(c)(1988); N.Y. C.L.S. PUB. HEALTH § 3331(1) (2010).

²³ Collins, *supra* note 1.

²⁴ *Id.* at 754-55.

[and] a currently accepted medical use in treatment in the United States.”²⁵ Schedule III classification is only appropriate if abuse of the substance “may lead to moderate or low physical dependence or high psychological dependence.”²⁶ However, joining the Food and Drug Administration, Drug Enforcement Administration, and National Institute on Drug Abuse in opposition to the Anabolic Steroids Control Act of 1990 was the American Medical Association, noting that abuse of AAS does not lead to dependence.²⁷

The 1990 law criminalized possession without a prescription for a precise list of twenty-seven anabolic steroids.²⁸ Insufficiencies in the 1990 law, however, allowed for the possession of unlisted steroidal compounds.²⁹ Another consequence of the ASCAs has been the emergence of products referred to as “prohormones.” A prohormone is a precursor to an anabolic-androgenic steroid; once consumed, enzymes in the body metabolize it into the target AAS compound.³⁰ Most side effects of these anabolic precursors mirror those of traditional steroids.³¹

One looming health risk is more pressing than with injected drugs, though: hepatotoxicity is a major concern because most prohormones are consumed orally.³² This oral consumption makes necessary the use of a methylated chemical coating so that the drug survives digestion; unfortunately, metabolism of these additives is highly taxing on the liver.³³ Prohormones became a hot topic in the late 1990s, when baseball slugger Mark McGwire, who portended to openly use androstenedione, shattered the single-season home run

²⁵ 21 U.S.C. § 812(b) (2000).

²⁶ *Id.*

²⁷ Collins, *supra* note 1, at 754.

²⁸ See 21 U.S.C. § 844 (2000) (creating a criminal penalty for possession of an enumerated anabolic steroid); 21 U.S.C. § 812(b) (2000).

²⁹ Collins, *supra* note 1, at 755.

³⁰ *What are prohormones?*, <http://www.prohormones.info> (last visited Aug. 17, 2014).

³¹ WILLIAM LLEWELLYN, *WILLIAM LLEWELLYN'S ANABOLICS* (10th ed. 2010).

³² *Id.*

³³ *Prohormones – A Comprehensive Guide to Prohormones – Updated*, PREDATOR NUTRITION, <http://www.predatornutrition.com/en/content/prohormones-a-comprehensive-guide-to-prohormones-updated/> (last visited Aug. 17, 2014).

record.³⁴ Androstenedione and derivative prohormones based on its chemical makeup quickly became a staple in professional sports.³⁵ Despite effecting results similar to injected anabolic-androgenic steroids, androstenedione and other prohormones remained immune from the purview of the 1990 Act.³⁶

Enumerated prohormones have been classified as Schedule III drugs since 2004, and the federal government has continued to add compounds to the list of controlled substances since passing the 2004 legislation.³⁷ Under the Act, the Attorney General has the authority to add any substance to the purview of regulation upon finding “that such drug or other substance has a potential for abuse.”³⁸ Notwithstanding health concerns intrinsic to prohormones that are problematic in their own right, federal disregard for the medical community thus far in this area bodes poorly for the accuracy of such findings.

Countering federal policing, new designer drugs are constantly developed by tweaking the ingredients of banned prohormones into new, perhaps more dangerous compounds exempt from Schedule III regulation.³⁹ This allows the supplement industry to keep pace with new additions to Schedule III, a constant conflict with no victor.⁴⁰ Given these facts, it is both obvious and perplexing that those prohormones yet to be banned are readily available in local and online supplement stores.⁴¹

³⁴ George Dohrmann, *Is This Dr. Evil?*, SPORTS ILLUSTRATED VAULT (Oct. 9, 2006), <http://sportsillustrated.cnn.com/vault/article/magazine/MAG1104278/2/index.htm>; see also Jose Canseco, *Juiced: Wild Times, Rampant 'Roids, Smash Hits, and How Baseball Got Big*, 199-204 (2005).

³⁵ Dohrmann, *supra* note 34.

³⁶ H.R. 4658, 101st Cong. (2d Sess. 1990).

³⁷ See, e.g., *Prohormones Come Under FDA Scanner*, FINANCIAL CONTENT (Sept. 7, 2012), <http://markets.financialcontent.com/stocks/news/read/22205605>.

³⁸ 21 U.S.C. §811(a)(1)(A).

³⁹ Larry K. Houck, *Designer Anabolic Steroid Control Act of 2012 Introduced; Would Bulk Up Federal Anabolic Steroid Controls* (July 26, 2012), http://www.fdalawblog.net/fda_law_blog_hyman_phelps/2012/07/designer-anabolic-steroid-control-act-of-2012-introduced-would-bulk-up-federal-anabolic-steroid-cont.html

⁴⁰ *Id.* (explaining the expansion of previous legislation to include substances created with the purpose of replicating the effects of other anabolic steroids).

⁴¹ See, e.g., Natasha Singer, *Supplements for Athletes Draw Alert From F.D.A.*, N.Y. TIMES (July 28,

ACT II

In response to these weaknesses, Congress passed the Anabolic Steroid Control Act of 2004, which greatly expanded the list of Schedule III substances to include additional conventional steroids as well as prohormones.⁴² The 2004 law also allowed the Attorney General to add to Schedule III any substance “chemically and pharmacologically related to testosterone.”⁴³ In contrast, the 1990 law set as a prerequisite to Schedule III classification a finding that the substance had “anabolic properties.”⁴⁴ This expansion explicitly excluded “estrogens, progestins, corticosteroids, and dehydroepiandrosterone.”⁴⁵

ACT III

A third law has been proposed but has yet to be passed. The first iteration, the Designer Anabolic Steroid Control Act of 2012, aimed to amend the definition of “anabolic steroid” to include any substance that “either promotes muscle growth; or otherwise causes a pharmacological effect similar to that of testosterone.”⁴⁶ This statute is absurd; any reasonably sound interpretation of the phrase “promotes muscle growth” would demand the federal prohibition of food.

The currently pending iteration, the Designer Anabolic Steroid Control Act of 2014, focuses instead on compounds “derived from” or “substantially similar to” previously listed substances, if it is either manufactured or marketed as promoting muscle growth or producing a pharmacological effect similar to that of testosterone.⁴⁷ This would function as a sort of *ejusdem generis* catchall, circumventing the need to label each particular steroidal compound

2009) (“The F.D.A. has authority to act only after it has received reports of serious health problems associated with products already on sale and it is able to prove a serious health hazard”).

⁴² Collins, *supra* note 1 at 757.

⁴³ *Id.* at 758.

⁴⁴ *Id.* at 757-58.

⁴⁵ 21 U.S.C. § 802 (2006).

⁴⁶ Designer Anabolic Steroid Control Act of 2012, S.3431, 112th Cong. (2012).

⁴⁷ Designer Anabolic Steroid Control Act of 2014, H.R. 2012, 113th Cong. (2014).

before it can be taken off the market. In turn, regulatory officials would be able to more quickly crack down on steroids designed with the purpose of evading the reach of previous legislation. Federal efforts to prohibit AAS and PED have disregarded scientific consensus and have proven futile in the surety of enforcement. However, as long as the current regulatory scheme initiated by the 1990 Act remains in place, this version of DAsCA could effectively close several loopholes that enable developers to peddle products without oversight or regulation.

Possession of a Schedule III controlled substance is a criminal offense punishable by up to a year of imprisonment and a fine of \$1,000.⁴⁸ If the offender has a prior drug conviction, that sum is increased.⁴⁹ Unlawful distribution or possession with intent to distribute is punishable by up to five years imprisonment, a sum that is doubled if the offender has a prior drug conviction.⁵⁰ Thorough capture of all offenders of these statutes would have resulted in the conviction of over one million Americans.⁵¹ Other substances with this punitive treatment include methamphetamine (except in its liquid form), barbituric acid, which is the parent compound of barbiturate drugs, and codeine.⁵²

In his testimony to the United States Sentencing Commission, Collins analyzed the baffling logic of AAS and PED criminalization and sentencing.⁵³ The Schedule III classification not only contradicted the professional input of the nation's top law enforcement and medical organizations, it also reflected and vitalized a fundamentally flawed perception of steroids users.⁵⁴ The majority of steroid users are

⁴⁸ 21 U.S.C. § 844 (2000).

⁴⁹ 21 U.S.C. § 841(b)(1)(D) (2000).

⁵⁰ Collins, *supra* note 1, at 755 (citing 21 U.S.C. § 841(b)(1)(D) (2000)).

⁵¹ *Steroid Abuse in Today's Society*, DRUG ENFORCEMENT ADMINISTRATION OFFICE OF DIVERSION CONTROL (March 2004), <http://www.deadiversion.usdoj.gov/pubs/brochures/steroids/professionals/>.

⁵² 21 U.S.C. § 812(C) (2000).

⁵³ See generally Collins, *supra* note 16.

⁵⁴ *Id.* at 4; John Burge, *Legalize and Regulate: A Prescription for Reforming Anabolic Steroid Legislation*, 15 LOY. L.A. ENT. L.J. 33, 42 (1994) (citing Legislation to Amend the Controlled Substances Act (Anabolic Steroids)); Hearings on H.R. 3216 Before the Subcomm. on Crime of the House of Representatives Comm. on the Judiciary, 100th Cong., 2d Sess. 99, at 74 (1988) [hereinafter Hearings on H.R. 3216] (testimony of Dr. Gloria Troendle, Deputy

neither sports stars nor “hapless teenager[s] [that] emulate [them].”⁵⁵ Instead, “the overwhelming majority [of defendants Collins has represented] are gainfully employed, health conscious adult males, between 25 and 45 years of age, using hormones not for athletic performance but to improve their appearance.”⁵⁶ Steroids users exhibit almost no traits in common with typical users of other controlled substances.⁵⁷ AAS and PED “are quite dissimilar to recreational drugs” and “are not taken for an immediate effect, but rather in carefully measured amounts over time to gradual effect.”⁵⁸ The most common motivations, then, are “identical” to those goals prompting an individual to undergo other, permitted cosmetic procedures.⁵⁹ Undoubtedly, acquisition and use of steroids for such non-medical purposes may give rise to negative judgment by the general public; equally clear, though, is that “cheating” in sports does not drive most AAS and PED use.⁶⁰

Cogent justification for the relevant federal sentencing requirements seems to reflect a fundamental lack of understanding of how these substances are used. First, Collins points to a tendency of police and prosecution teams to equate possession for personal use as carrying an “intent to sell” because steroids require a constant duration of use.⁶¹ Without question, interpersonal deals are a regular means of transferring possession of AAS and PED from buyer to seller. However, current laws codify quantities well below that consumed in an ordinary cycle as sufficient for a charge of drug trafficking.⁶² This only increases the existing disproportionality

Director, Division of Metabolic and Endocrine Drug Products, Food and Drug Administration).

⁵⁵ Collins, *supra* note 16, at 2.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ Richard D. Collins, *Feature: Drugs and the Body Beautiful--A Guide to Defending Anabolic Steroid Cases*, 26 CHAMPION 12 (Mar. 2002).

⁵⁹ Collins, *supra* note 16, at 2.

⁶⁰ *Id.* at 3.

⁶¹ *Id.* at 4-5.

⁶² *Id.* at 5; *see, e.g.*, N.M. Stat. Ann. § 30-31-41 (1987) (including possession with intent to distribute as a fourth degree felony offense); N.M. Stat. Ann. § 31-18-15 (1987) (setting eighteen months imprisonment as the “basic sentence” to which additional time may be added or deducted).

between the targeted activity and the licensed punishment. Second, modern transport methods protect dealers of controlled substances, who often sell via the Internet while remaining beyond the jurisdiction of American courts.⁶³ Rather than focusing on actual dealers, its application instead legislates against amateurs, bodybuilders, and "gym rats."⁶⁴

Unfortunately, prohibition of anabolic-androgenic steroids and performance-enhancing drugs has created side effects exceeding those of the drugs, including an explosion in the black market for steroids of unknown purity.⁶⁵ This black market consists of "any available androgens, including veterinary, illegally manufactured, stolen and counterfeit steroids."⁶⁶ According to Gary Wadler, a New York doctor and consultant to the White House on drugs and sports, "[i]t was the law of unintended consequences . . . Back then, no one thought we were taking a step backward by making it a Controlled Substance. But in reality that's exactly what happened."⁶⁷

As might be expected, the unknown quality of these substances is dangerous, and individuals who have made the decision to "hop on" must deal with low purity of black market steroids themselves. A bottle may be diluted with an impotent substance, thereby increasing the dealer's profits at the expense of the user. Some steroids may also be diluted or even substituted with other, cheaper steroids, making precise assessment of one's intake of the target steroid neigh impossible.⁶⁸ In contrast with those medical problems that can be associated with general AAS use, this threat is exclusive to the black market. Of course, not all illicit dealers disregard quality control, and

⁶³ Collins, *supra* note 16, at 4.

⁶⁴ *Id.* at 5.

⁶⁵ See Mayo Clinic, *Performance-Enhancing Drugs: Know the Risks*, HEALTHY LIFESTYLE FITNESS (last visited Nov. 18, 2013) <http://www.mayoclinic.com/health/performance-enhancing-drugs/HQ01105> ("[M]ore effective law enforcement in the United States has pushed much of the illegal steroid industry into the black market").

⁶⁶ David J. Handelsman, *Testosterone: Use, Misuse and Abuse*, 185 MED. J. AUST. 436, 438 (Oct. 2006).

⁶⁷ Tom Farrey, *Yesterday's drug makes comeback*, ESPN (Dec. 12, 1999), <http://espn.go.com/gen/s/2000/1207/929174.html>.

⁶⁸ Peter Alfano, *Drugs That May Build Bulk Pull Weight on Black Market*, N.Y. TIMES, (Nov. 18, 1988), <http://www.nytimes.com/1988/11/18/sports/drugs-that-may-build-bulk-pull-weight-on-black-market.html?pagewanted=all&src=pm>.

developing a reputation as an honest entrepreneur in an illegal trade is a valuable endeavor.⁶⁹ Sales of illegally procured pharmaceutical-grade steroids countering the deluge of underground products are flourishing as lifters become aware of the risks of bunk gear.⁷⁰ These sources, though, remain susceptible to the propensity of law enforcement to catch international smuggling and other voluminous transactions.⁷¹

The Anabolic Steroid Control Acts have not merely allowed the rise of a black market, a problem common to banned substances.⁷² As previously noted, they have propagated faulty information about anabolic-androgenic steroids and those who use them.⁷³ They have utterly failed to accomplish their objective of stopping “cheating” in sports.⁷⁴ Finally, stemming both from prohibition and from propaganda, they have inducted an environment more threatening to the health and safety of the people. These are not lone failures—each is intertwined in a single web of bad policy.

Regarding the failure to stop “cheating,” it must be noted that it is nearly impossible to assess the prevalence of use. For example, “[college football’s] near-zero rate of positive steroids tests isn’t an accurate gauge among college athletes. Random tests provide weak deterrence and, by design, fail to catch every player using steroids.”⁷⁵ This weakness carries over outside of the college context, and AAS and PED use rates among professional football players is believed by

⁶⁹ See Maryke Penman, *Steroid Dealer Dishes Facts on Industry*, NORTH SHORE TIMES, (May 9, 2013, 8:40 AM), <http://www.stuff.co.nz/auckland/local-news/north-shore-times/9128585/Steroid-dealer-dishes-facts-on-industry>.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² J. Savulescu et al., *Why We Should Allow Performance Enhancing Drugs in Sport*, 38 BRIT. J. SPORTS MED. 666, 669 (Dec. 2004).

⁷³ See, e.g., Gary S. Ferenchick, *Validity of Self-Report in Identifying Anabolic Steroid Use Among Weightlifters*, 11 J. GEN. INTERNAL MED. 554 (Sept. 1996). There is a particular stigma against females interested in weight training, which can be an effective preventative tool against myriad health problems. Harvey R. Freeman, *Social Perception of Bodybuilders*, 10 J. SPORT & EXERCISE PHYSIOLOGY 281 (1988).

⁷⁴ Paul J. Goldstein, *Anabolic Steroids: An Ethnographic Approach*, 102 ANABOLIC STEROID ABUSE 74, 75 (1990).

⁷⁵ Associated Press, *Steroids Loom Large Over Programs*, ESPN: THE WORLD WIDE LEADER IN SPORTS (Dec. 20, 2012), http://espn.go.com/college-football/story/_/id/8765531/steroids-loom-major-college-football-report-says.

some experts to be over 90%.⁷⁶ The failures of current drug testing may not be fixable. Some drugs, such as human growth hormone, “evade detection because the drug cannot be distinguished from naturally-produced growth hormone during ordinary drug testing”; others clear the body so quickly that unless an athlete is tested within days of use, he or she will pass.⁷⁷ Insulin, a drug noted for its extremely anabolic effects when stacked with growth hormone, cannot be traced at all.⁷⁸ Unlike most AAS and PED, insulin carries an intrinsic risk of acute overdose and stands apart from other, safer substances.⁷⁹ Furthermore, self-reporting is likely to yield disproportionately low use rates due to the fear of social stigma and potential disqualification from competition in sport.⁸⁰

Removing anabolic steroids from Schedule III would clearly rectify any future harm to the general public, but it would not address the attitudes that helped spark public support for the ban in the first place. Publicity of AAS and PED in sports has not always received sufficient attention to trigger public discussion, without which change is unlikely. For example, in 2008, a report in the San Diego Union-Tribune listed over 185 National Football League (NFL) players who had partaken in performance-enhancing drugs over the previous 30 years.⁸¹ Rather than sparking a firestorm of criticism directed toward the athletes and organizations, this “Mitchell report

⁷⁶ Burge, *supra* note 53 (citing Goldstein, *supra* note 3, at 75).

⁷⁷ Curtis A. Kin, *Coming Soon to the “Genetic Supermarket” Near You*, 48 STAN. L. REV. 1573, 1586 (1996).

⁷⁸ Jessica Ebert, *How to Catch an Insulin-Doping Athlete*, ROYAL SOCIETY OF CHEMISTRY, (Mar. 8, 2007), <http://www.rsc.org/chemistryworld/News/2007/March/08030701.asp> (assessing initial progress in drug testing to detect long-acting insulin). However, Lantus, the long-acting insulin studied, is not as frequently abused for its anabolic effects as short-acting Humalog, short-acting Humulin R, or intermediate-acting Humulin N.; Rick Rockwell, *Insulin for Bodybuilders*, LIVESTRONG.COM, (Aug. 16, 2013), <http://www.livestrong.com/article/506888-insulin-for-bodybuilders/>; Andy Coghlan, *Athletes May Be Increasingly Abusing Insulin*, NEWSIDENTIST, (Aug. 8, 2001), <http://www.newscientist.com/article/dn1129-athletes-may-be-increasingly-abusing-insulin.html#.VHHjoIvF98H>.

⁷⁹ Rockwell, *supra* note 77 (listing development of diabetes mellitus, long-term organ damage, coma, and death as dangers of insulin abuse).

⁸⁰ See, e.g., Ferenchick, *supra* note 72, at 554.

⁸¹ Brent Schrottenboer, *A Detailed History*, SAN DIEGO UNION-TRIBUNE, (Sept. 21, 2008), <http://www.utsandiego.com/sports/20080921-9999-1s21list.html>.

of pro football” received little coverage.⁸² Neither law enforcement nor the NFL has seemed terribly interested in meting out punishments rivaling those of Major League Baseball or, for that matter, the criminal sanctions imposed on the general public for steroid offenses.⁸³

Of course, replacing government policy does not affect the autonomy of sporting organizations to attempt to prohibit use. Savulescu provides two arguments as to why it may be more rational to completely permit performance-enhancing drugs in sports, given the sheer impossibility of absolute prohibition.⁸⁴ First, and more convincingly, the failure to accurately and consistently catch athletes who use performance-enhancing substances is a real barrier to “fairness.” Without reliable detection methods, use rates are likely to remain extremely high in physically demanding sports.⁸⁵ Second, the genetic lottery itself blesses some individuals with greater performance thresholds in a given activity.⁸⁶ Savulescu claims that allowing steroids would “promote equality”; however, the genetically gifted would have access to the same drugs, and it is not clear whether those individuals would experience proportional gains.⁸⁷ Although the permissibility of AAS and PED in sport may not ensure equity among competitors, admission of nearly universal use would eliminate claims of “cheating.”

Sporting organizations may not follow Congressional policy even if AAS and PED possession and use was decriminalized, but like the repeal of other prohibitions in the past, the lack of legal risk would allow for a more open and honest conversation in the public sphere, perhaps allowing truth to overtake myth and misconception.

⁸² Allen Barra, *A Scandal Takes a Timeout*, WALL STREET JOURNAL, (Oct. 4, 2008), <http://online.wsj.com/news/articles/SB122306903415103333>.

⁸³ Compare *id.* (noting “there have been no suspensions, few newspaper headlines, and no threats of congressional hearings”), with Chris Smith, *Alex Rodriguez Suspended Through 2014, Still Belongs In The Hall of Fame*, FORBES, (Aug. 5, 2013), <http://www.forbes.com/sites/chris-smith/2013/08/05/alex-rodriguez-to-be-suspended-still-belongs-in-the-hall-of-fame/> (“Alex Rodriguez has been issued a suspension through the 2014 season for a total 211 games”); 21 U.S.C. § 841(b)(E)(i) (2000).

⁸⁴ See generally Savulescu, *supra* note 72.

⁸⁵ *Id.* at 666.

⁸⁶ *Id.* at 667.

⁸⁷ *Id.* at 668.

Whether Major League Baseball, the National Football League, or other sporting organizations act to allow AAS and PED use or continue, likely in vain, to attempt to stop their proliferation is beyond the scope of legal discussion.

While criminalization is a permissible means of achieving an end that the government is empowered to seek, the ASCAs have not been adequate in protecting the health and safety of the public. Deeming possession of steroids a federal crime punishes individuals not for the harm they might cause to others, as with other prohibited narcotics, but for a personal endeavor, "however misguided."⁸⁸

Considering the effects of these laws in the aggregate, it is readily apparent that they have caused more harm than good to the health and safety of the public without successfully bringing about the intent of the legislative body. These laws have created an environment in which an individual wishing to recreationally use AAS cannot acquire the safest and most effective substances under professional supervision. Instead, under current law, the only options for an individual aspiring to physical development beyond natural limitations are: (1) to consume even more toxic substances; or (2) to risk criminal liability for acquisition of substances of unknown purity and quality. This is a logically gratuitous whipsaw. The federal and state governments should sunset the current ASCA provisions and their state level counterparts.⁸⁹

Any proposed regulatory system put in place will only prove effective if it directly benefits potential users. If governmental interference remains a sufficient deterrent to make the black market a more attractive option, then the goals of reform will not be fully met.⁹⁰ In spite of this flaw, the possibility of safer use for those who seek it is a benefit not to be ignored.

⁸⁸ Collins, *supra* note 16.

⁸⁹ E.g., TEX. HEALTH & SAFETY CODE ANN. §481.071 (permitting possession of anabolic-androgenic steroids "for a valid medical purpose" and excluding from the definition of valid medical purposes "body building, muscle enhancement, or increasing muscle bulk or strength"); CAL. HEALTH & SAFETY CODE §11153.5(c); N.Y. C.L.S. PUB. HEALTH §3331(1) (providing that may be prescribed for or dispensed or administered to an addict or habitual user).

⁹⁰ Jacob Sullum, *Will Colorado's Pot Taxes Preserve The Black Market?*, FORBES, (Oct. 10, 2013), <http://www.forbes.com/sites/jacobsullum/2013/10/10/will-colorados-pot-taxes-preserve-the-black-market/>.

Simply repealing the Anabolic Steroid Control Acts is not the answer, however. Without regulation to protect consumers, the market will soon flood with potentially dangerous and perhaps impotent products. Only by leaving Congressional regulation of these substances intact will betterment of public health and safety be achieved. In this respect, additional considerations demand unique attention. For example, experts agree that minors are categorically exposed to greater harm when using AAS.⁹¹ This caveat must be addressed so that individuals too young for a prescription do not rekindle a demand for black market drugs. Current governmental intervention is limited to scare tactics about side effects that do not exist and conflation of addiction with the choice to continue using the substance(s) in spite of side effects.⁹² A better policy choice would be to provide scientifically verified information instead of advocating categorical abstinence on grounds that are not backed by empirical research.

In this respect, an analogous consideration is the limitation of alcohol to individuals of at least 21 years. Honest assessment of the successes and failures in the implementation of the National Minimum Drinking Age Act (NMDAA) might provide lawmakers with means of ensuring that AAS and PED do not fall into the hands of minors despite adoption of a more open law. For example, alcohol abuse by college students is infamous and, in part, a consequence of the drinking age of 21. About half of college student drinkers, themselves composing roughly four out of five students, “engage in heavy episodic consumption.”⁹³ This dilemma has persisted in the

⁹¹ Lisa Fish et al., *Anabolic Steroids and Young Adults*, 8 J. CLINICAL ENDOCRINOLOGY & METABOLISM 89 (Aug. 2004), <http://jcem.endojournals.org/content/89/8/0.1.full.pdf+html>.

⁹² See Tricker, *supra* note 7 (noting crippling methodological error in previous studies reaching other conclusions); see generally Hoffman, *supra* note 7; Drug Enforcement Administration Office of Diversion Control, *Steroid Abuse by School Age Children*, <http://www.dea.gov/diversion/pubs/brochures/steroids/children/> (defining addiction as “continuing to take steroids in spite of physical problems, negative effects on social relations, or nervousness and irritability”); but compare Oxford Dictionaries, Definition of “addicted” in English, http://www.oxforddictionaries.com/us/definition/american_english/addicted?q=addicted (defining addicted as “physically and mentally dependent on a particular substance, and unable to stop taking it without incurring adverse effects”).

⁹³ David Skorton & Glenn Altschuler, *A Sober Assessment of High-Risk Drinking on College Campuses*, FORBES (Dec. 17, 2012),

face of a system with much in common with British AAS and PED regulation. Thus, while reform of the ASCAs would not create a new risk of minors accessing anabolic-androgenic steroids and similar drugs, its alleviation of the existing problem would likely be limited to general diminishing supply. One possible remedy for the remainder could be to enlist the support of youth sports programs in dispensing information that realistically addresses the concerns of young athletes. Stronger policing of programs that allow their players to use AAS and PED before they are physically mature enough could develop a carrot-and-stick approach. Despite the challenge of actually catching offenders, an intentionally blind eye toward minors is unacceptable.

Additionally, price is a concern. Illicit AAS are not very costly at present. The introduction of externalities between seller and buyer will likely increase costs, thereby leading some to search for less expensive goods on the black market. If there is no mechanism to ensure that illicit steroids are a less attractive option than their legitimate counterparts, any new policy will only be partially effective. Nevertheless, the purpose of any reform would be to provide a legal and safe option, not to ensure that this be the only option. Therefore, ensuring sufficiently low prices to preclude any possible black market is not a necessary element of a replacement law.

Comparative analysis yields a viable alternative. In the United Kingdom, steroids are legally available, but possession is conditioned on a prescription from a doctor, who may adequately inform individuals of the proper protocols and risks of use.⁹⁴ The primary difference would therefore be a provision editing the ASCA to ensure that AAS and PED may be prescribed for elective purposes.

In the United Kingdom, the applicable law is the 1971 Misuse of Drugs Act.⁹⁵ Anabolic-androgenic steroid compounds are labeled

<http://www.forbes.com/sites/collegeprose/2012/12/17/a-sober-assessment-of-high-risk-drinking-on-college-campuses/>; see generally National Institute on Alcohol Abuse and Alcoholism, *College Drinking*, NIH, <http://www.niaaa.nih.gov/alcohol-health/special-populations-co-occurring-disorders/college-drinking>.

⁹⁴ See generally DrugScope, *What Are The UK Drug Laws?*, (July 2013), <http://www.drugscope.org.uk/resources/faqs/faqpages/what-are-the-uk-drug-laws>.

⁹⁵ See Misuse of Drugs Act, 1971, c. 38 (Eng.).

Class C drugs under the Misuse of Drugs Act.⁹⁶ Like its American counterpart, the British law broadly prohibits possession or distribution of AAS.⁹⁷ Only an authorized “doctor, dentist, veterinary practitioner or veterinary surgeon, acting in his capacity as such” may “prescribe, administer, manufacture, compound or supply a controlled drug.”⁹⁸ “It remains illegal to supply, manufacture or possess with intent to supply,” or import steroids without appropriate license.⁹⁹ The significant difference, then, is that the Misuse of Drugs Act does not require an enumerated medical purpose for possession; by implication, recreational use is permitted.¹⁰⁰

Instead, a series of regulations provide the means by which an individual may legally acquire and use AAS and PED.¹⁰¹ In the United Kingdom, anabolic steroids are considered Schedule 4 substances, and fall within Part 2 of that schedule.¹⁰² Under those regulations, anabolic steroids “can be legally possessed in medicinal form without a prescription but are illegal to supply to other people.”¹⁰³ By this logic, the end user, often the primary target of prosecution in the United States, only breaks the law upon a finding that their *mens rea* included an intent to supply and not mere personal use. The black market dealer remains subject to criminal sanction, leaving behind authorized medical professionals as the only legitimate sources.¹⁰⁴

Under the Misuse of Drugs Act, the maximum penalty for possession of anabolic steroids without a valid prescription is 2 years

⁹⁶ *Id.* at sch.2.

⁹⁷ *Id.* at § 5.

⁹⁸ *Id.* at § 7(3)(a).

⁹⁹ *Steroid Law, STEROIDS AND IMAGE ENHANCING DRUGS* (2014), http://www.siedsinfo.co.uk/steroid_law.html.

¹⁰⁰ See *Consideration of the Anabolic Steroids*, ADVISORY COUNCIL ON THE MISUSE OF DRUGS, 12 (Sept. 2010), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/144122/anabolic-steroids.pdf.

¹⁰¹ *Id.*

¹⁰² DrugScope, *supra* note 92 at 4.

¹⁰³ *Id.*

¹⁰⁴ *Id.*

imprisonment plus a fine.¹⁰⁵ For those convicted of illegally supplying anabolic steroids to others, the maximum sentence is 14 years imprisonment plus a fine.¹⁰⁶ However, due to the complicated nature of their legal status, possession offenses are typically waived if the drug is in the form of a medicinal product.¹⁰⁷ From these facts, it is readily apparent that the British regulatory scheme is less concerned with criminalization of possession and imprisonment of recreational users than with quality assurance and elimination of a black market that may pose harm to the people. This is a markedly different, and more beneficent, priority than the American focus on criminalization.

If the United States were to utilize the British system as a basis, it would rapidly ameliorate the harms caused by the Anabolic Steroid Control Acts. Medical risks not intrinsic to the drugs could be all but eliminated, and those remaining could be monitored by a competent physician and adjusted for immediately. With a legitimate option available, black markets would exist in a deeply mitigated capacity, making policing proportionally easier and more effective. Prohormones would probably not be administered frequently, if ever, due to their diminished efficacy and greater risk. While federal action to keep prohormones off the market has not been terribly successful, it is likely that the existence of a legally sanctioned alternative would deter many from using them, thereby eliminating demand.

Blocking the importation of black market drugs would likely be more challenging in the United States than in Great Britain. An isolated island, Great Britain does not share a 1,954-mile border with the Mexico, which, as previously noted, is the source of a large quantity of underground AAS and PED.¹⁰⁸

One consideration an American version of the Misuse of Drugs Act may not address is that which inspired the first ASCA. With decriminalization would come a relinquishment of federal authority in the sporting world, and those organizations would be left with their own autonomy to regulate AAS and PED use. Other

¹⁰⁵ See Misuse of Drugs Act, 1971, c. 38§ 28(3), (Eng.).

¹⁰⁶ *Id.* at § 28(2)(b).

¹⁰⁷ DrugScope, *supra* note 92 at 2.

¹⁰⁸ Farrey, *supra* note 66.

constitutional options before Congress to intervene are beyond the scope of simple decriminalization, but recognition of every consequence and the probability thereof would do much to preclude buyer's remorse. Just as knee-jerk policy against steroid usage quickly showcased the side effects of blanket prohibition, the full implications of any alternative should be explored and refined to craft an optimal law. However, a cogent attempt to remedy the mistakes of the Anabolic Steroid Control Acts might start with the British Misuse of Drug Act as a template.

Good law is a tool by which society expresses its collective norms and mores. Unfortunately, universally negative attention has exposed the public to but one aspect of the broader issue. Medical consensus regarding the lack of a dependence component in anabolic-androgenic steroids failed to preclude the passage of the ASCA. With valid information drowning in a sea of legitimate concern poorly placed, one necessary step to reform is for the quiet voices of science to be amplified. Individuals versed in the matter must directly and confidently contradict the patently false statements put forth by the government and media. The social stigma of AAS and PED use is a significant obstacle, but only by the will of the people and the concurrence of their representatives will change come to fruition.

Steroid myths abound, among them side effects with particular social stigma.¹⁰⁹ While a cursory glance at medical literature quickly resolves such misconceptions, a more fundamental issue persists.¹¹⁰ AAS and PED users, both recreational and professional, confront not only criminal liability, but also severe personal criticism for their decision to use steroids. Such criticism reflects the perception that steroid use in sports is somehow cheating and that the millions of recreational users are somehow "others," not merely individuals with personal goals. Undoubtedly, there is a "polarization between steroid

¹⁰⁹ *Anabolic Steroids*, DRUG ENFORCEMENT ADMINISTRATION OFFICE OF DIVERSION CONTROL (Aug. 2013), http://www.deadiversion.usdoj.gov/drug_chem_info/anabolic.pdf (listing "aggression" and "feelings of hostility" as side effects of anabolic steroid use); See *DrugFacts: Anabolic Steroids*, NATIONAL INSTITUTE ON DRUG ABUSE, (July 2012), <http://www.drugabuse.gov/publications/drugfacts/anabolic-steroids> (listing "testicular atrophy" as a side effect of anabolic steroid use).

¹¹⁰ R. Tricker et al., *supra* note 7 (finding that "roid rage" does not exist, at least with regard to compounds crafted for human consumption, including testosterone); Hoffman & Ratamess, *supra* note 7 (noting that steroid-induced testicular atrophy is reversible upon cessation).

users and non-users," especially regarding the health risks and the legitimacy of such body modification.¹¹¹ While a "hearts and minds" approach is beyond the scope of legal consideration, a paradigm shift in public awareness of both these substances and those who partake in them is an appropriate step toward more cogent policy.

It is for the foregoing reasons the current regulation of anabolic-androgenic steroids not only has failed to achieve its stated goals but also has introduced new threats to the health and well-being of the people. Repeal of the Anabolic Steroid Control Acts and implementation of a system analogous to that of the United Kingdom, with some minor adjustments, would do much to repair the damage wrought by the ASCAs, as well as better ensure the health and safety of the people as they make choices for themselves.

¹¹¹ Sam Wright et al., *Motivations for Anabolic Steroid use Among Bodybuilders*, 5 J. HEALTH PSYCHOL. 556 (July 2000).