

Ergogenic Aids and the Limits of Human Performance in Sport: Ethical Issues, Aesthetic Considerations

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Introduction

The role of performance-enhancing drugs has been one of the most intriguing and volatile issues in philosophy of sport in the last 30 years. There have been a large number of philosophers (myself included) who have entered into this debate, and though there has been progress, nothing has been firmly settled philosophically.

With the volume of papers on performance-enhancing drugs, it is strange that the larger issues of performance-enhancement (ergogenicity) and performance-enhancing aids (ergogenic aids) have been mostly ignored. Perhaps the thinking is that competitive sport, if anything, is about performance enhancement and to invite philosophical speculation on something so obvious is plethoric or, at least, unworthy of attention. Yet since so much of competitive sport today is about winning, our investment in performance enhancement is immense. When, if ever, is the cost too great?

The issue of performance enhancement in sport is of particular interest to me, as I have been involved for 24 years in lifting weights¹—most of these years as a competitive powerlifter. Powerlifting—which tests for strength in the squat, bench press, and deadlift—is a sport where performance enhancement in training and in contest is quickly noticed and easily measured, and ergogenic aids have been with the sport since its infancy. Early powerlifters used tight denim jeans and body wrappings of all sorts to enable them to improve leverage and lift more weight, and anabolic drugs have been around since powerlifting began.

When the first drug-free powerlifting federation, the American Drug-Free Powerlifting Association, was formed some 20 years ago, there came on the market, as if in compensation for the loss of performance enhancement through the disuse of anabolic drugs, an abundance of performance-enhancing equipment that remains a large part of the sport today. Currently there are squatting suits and knee wraps that together add over 100 pounds to one's squat, single- and double-denim shirts that do almost the same for the bench press, tight-fitting suits for ergogenicity in the deadlift, wrist wraps to stabilize one's wrists while lifting, and thick leather belts for additional performance enhancement in all three lifts. It is questionable,

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however, whether this "catalogue" of equipment has done anything to promote an interest in powerlifting by athletes or spectators. Rather I assert confidently that it has done more to keep people away from the sport. One instance will suffice for illustration. Before the squat, lifters often need three other people to help them into their squatting suits. Knee wraps are then applied so tight that they often temporarily cut off blood flow. Now readied to lift, lifters are so tightly wrapped in relatively inelastic materials that they can scarcely walk to the squatting platform. Muscles are almost completely covered by performance-enhancing fabric. It is almost the same scenario for the bench press and the deadlift. Equipment, it is safe to say, is doing a noticeable portion of the lifting in powerlifting, instead of lifters.

In contrast to powerlifters, most Olympic lifters² approach their platform with nothing more than a non-ergogenic wrestling singlet and chalked hands. Muscles bulge out and strain under the massive weights, and it is plain for all to see that the lifters themselves thrust the iron overhead, instead of equipment. Thus, there is to my eye a simplicity and elegance to Olympic lifting that has never really been a part of powerlifting, and the reason has to do with the abundance of performance-enhancing aids in powerlifting that are not a part of Olympic lifting.

In this paper, I wish to turn attention both to ethical and aesthetic dimensions of performance enhancement in sport—specifically, the much overlooked issue of performance-enhancing aids. First, can the use of certain performance-enhancing aids in sport be unethical? Second, are there aesthetic considerations that suggest limits on our use of ergogenic aids for performance enhancement? Though I answer both of these questions affirmatively, I consider none of the conclusions that I draw in this work to be definitively established. I merely introduce certain arguments as a basis for further, more enlightened philosophical discussion. Also, it is important to realize that my comments throughout are chiefly directed toward formal athletic competitions such as Olympic competitions, world-championship events, and professional sport.

1. What Are Ergogenic Aids?

Ergogenic aids are substances, techniques, or materials that are work-engendering or performance-enhancing. According to Melvin Williams, there are five kinds of ergogenic aids: pharmacological, mechanical, psychological, physiological, and nutritional (15: p. 124). Athletes, especially at the highest levels of competition, are amply aware of pharmacological ergogenic aids such as anabolic steroids, HGH, and amphetamines. Mechanical ergogenics are those concerning materials and physical techniques used to enhance performance. Let me use baseball to illustrate. On the material side, batters often use lighter, streamlined bats to increase bat speed, while fielders often have gloves tailored to their respective position on the diamond. On the physical side, some batters employ certain techniques to improve bat contact, while pitchers might add a new pitch, such as a slider or slurve, to their arsenal to improve effectiveness. Psychological ergogenic aids—like visualization, motivational speeches, and arousal techniques—are mental techniques that have proven effective in enhancing performance. Fourth, physiological ergogenic aids are those that directly improve physiological performance. Altitude running by distance runners acclimates their body to work hard in oxygen-depleted conditions, thereby enhancing performance in normal conditions. Also, keeping a low percentage of body fat gives athletes a physiological edge in that

greater muscle mass in almost all sports facilitates improved performance. Last, nutritional ergogenics are dietary aids such as protein or carbohydrate supplementation, vitamins and minerals, caffeine, and baking soda. Even water, which has no calories, can be considered a nutritional ergogenic in that on hot days those who replace fluids with regularity have a decided performance advantage over those who do not. In short, failure to replace water always translates into impaired execution.

This final example suggests that it would be profitable to distinguish between direct and indirect ergogenic aids. Direct ergogenic aids are those that, if used correctly, award a particular athlete some noticeable improvement in performance. Indirect ergogenic aids are those whose use either prevents diminution of performance over time (e.g., regular fluid replacement on a hot day) or leads to victory or improved placement due to a diminution of performance in competitors (e.g., trash talking).

Now there is little doubt that ergogenic aids are to some extent a necessary part of competitive sport. The issue I now explore is whether there ever are ethical reasons for disallowing certain ergogenic aids from competitive sport.

2. Ergogenic Aids and Unnaturalness

Perhaps the most intuitive objection to certain ergogenic aids such as anabolic steroids and HGH is that they are unnatural. Expressed baldly, the argument runs thus: We are morally obliged to ban unnatural aids from competitive sport, since unnatural aids have no place in sport.

Let me compare two elite 100-meter sprinters: twin sisters Amy Jo and Jaimie Jo. Both athletes believe they can be world-class, and each considers using HGH in order to take things to the next level. Being well-informed and concerned about possible health risks, Jaimie Jo opts to refrain from taking HGH. Amy Jo, however, decides to take HGH, increases her lean muscle mass some 8%, and experiences an improvement in her sprinting that places her among the world's best. Jaimie Jo is somewhat envious, but she remains steadfast in her refusal to take HGH because, she maintains, her training is "clean," while her sister is doing something unnatural.

There is an obvious problem with Jaimie Jo's reasoning. HGH (Human Growth Hormone) is a substance that is manufactured in each person's body.³ So, how can it be unnatural? Jaimie Jo might concede this, however, but add that what is unnatural is that Amy Jo, through injecting additional HGH into her body, is *adding to* the HGH her body naturally produces by itself. Yet the same argument can be used against those who supplement their diet with vitamins, minerals, or protein. This too would seem unnatural, but few people would object to these kinds of supplements.

It seems unfair in that, by taking the drug, in general Amy Jo, with the same amount of work, has developed greater muscle mass than Jaimie Jo. But what if Jaimie Jo enhances her performance equally as well (without HGH) through the use of caffeine, antioxidants, amino acids, baking soda, active recovery techniques, sound coaching, and psychological techniques? Are any of these natural?

The problem of course centers on just what we mean by "natural." Attempts to distinguish between natural and unnatural usually assume that it is completely understood what these terms mean as regards sport, when it seems the opposite is

true. The primary sense of natural, "of or belonging to nature," helps nowise as regards sport. Presumably, what we really mean is something like "having its source or origin in and not outside of an athlete." Roger Gardner writes:

[O]ne might want to argue that the psychologist, biomechanist, diet, and so on are simply bringing out the best in the athlete, and the athlete (qua human) is still ultimately responsible for the performance and any gained advantage. The resulting capability is not external to the athlete . . . but inherent within the athlete. The enhancement allowed for through the scientist or diet simply permits the athlete to overcome some "undesired inhibitor" to better performance . . . and thereby reach his or her full potential. Yet, it would seem that the same argument could be made with respect to the use of substances such as amphetamines or steroids . . . If the limiting condition is to be humanness, then the objectionable enhancement must be shown to be nonhuman. (6: p. 304)

Moreover, if we buy into this sense of natural, we do away with very many ergogenic aids that no one finds morally objectionable.

It is correct to say that there is nothing natural about most ergogenic aids for athletes. As I have mentioned, in powerlifting, there are denim benching shirts, denim squatting suits, thick leather lifting belts, knee wraps, wrist wraps, and chalk. These are just the *mechanical* ergogenic aids that fall under the standard rubric of advances in sportive technology.

The picture is much the same with most other sports. Manufacturers lead the way by offering advances in ergogenic technology that offer professionals as well as non-professionals more efficient ways of doing more with the same or even less effort. This of course is part of the lure of professional sport. As athletes push the limits of athletic excellence, ergogenic aids become increasingly sophisticated to enable them to push further. In this age of technological advance, the line between natural and unnatural that may have been easier to draw some 50 or more years ago, now seems arbitrary and unavailing. One thing seems certain: There is very little about sport at the highest levels of competition that is natural (12: p. 173).

3. *Ergogenic Aids and Unfairness*

Next, I turn to the topic of unfairness. The issue here is whether certain ergogenic aids should be banned because they offer some athletes an unfair advantage over others.

It might be argued that certain ergogenic aids are unfair because some athletes have privileged access to these, while others do not. Access to the best coaches is an example. Access to world-class facilities is another.

We must keep in mind here that it is not the ergogenic aids that are at issue, but the access to them, and a large part of accessibility concerns money. A wealthy athlete will have access to the latest and best-designed equipment, coaching, psychological counseling, nutritional supplements, and other such ergogenic aids. How then does an equally ambitious, poorer athlete compete? She cannot.

Imagine a group of people in a large, closed community who have all their immediate needs met and who have a vast array of societal goods, one of which is sport. Suppose further that there are a great number of sports from which to choose in this community, and anyone who should choose one sport would be privy to all

of the ergogenic aids that all other athletes in that sport would have available to them. Certainly here the playing field would be perfectly leveled, and those who came out on top would be deserving of their status. In such a scenario, it seems that genetic constitution, psychic habituation, and innate drive would determine the best athletes in most competitions. The squabbling about this or that being unfair would disappear. In almost each and every case, we would know who the best athlete is.

Such scenarios, however tantalizing to imagine, are manifestly divorced from reality. Unfairness is a fact of life. Countries, driven by different ideologies, have different interests and values. Third-world nations, often with limited resources, have little concern for sport when civil strife, drought, unemployment, and hunger plague their peoples. For countries where clean water and air are luxuries, sport is mostly absent. In addition, climate or resources can limit one's options. For instance, a young man who lives in Egypt may find it frustrating to have a passion for skiing to which he cannot give vent. Nonetheless, part of the beauty of sport is that some persons or teams can overcome certain seeming disadvantages and still prevail through sheer determination, cleverness, and pluck.

At any rate, as Roger Gardner has pointed out, it is not so much advantage to which we object, but the manner in which an advantage is gained (6: p. 296). Consider, for instance, a knuckle-ball pitcher named Huges. Huges throws a knuckle ball by hurling the ball with as little rotation as possible. With very little rotation, the asymmetric stitching on the ball is greatly impacted by the ambient air flow. The drag on a thrown ball, which is smooth on the side where there is no stitching and rough on the side with stitching, is obviously uneven (greater drag on the smooth side, lesser drag on the stitched side). Such uneven drag makes the pitch very difficult to control and often next to impossible to hit. Knucklers are a part of baseball and there is certainly no controversy surrounding this. Now let us imagine that another pitcher, Luges, can get the effect of a knuckleball by hurling a baseball that has been scuffed up in a certain uniform manner. We would certainly be outraged at Luges' actions—perhaps even morally outraged. There is, after all, a rule that guards against scuffing up the surface of a baseball. Yet Gardner would maintain that our moral outrage over such scuff-knucklers must be justified by reference to a moral principle that is being transgressed. Presumably, from the perspective of fairness, outrage would disappear were all pitchers allowed to throw scuff-knucklers (6: pp. 296-298). I return to this example later. Thus, fairness cannot be the issue.

4. Ergogenic Aids and Harm

What of the issue of harm? Can we object to certain ergogenic aids if they are proven or even suspected of being harmful?

Over the years, W. Miller Brown has repeatedly argued that harm is a personal, not a public, issue.⁴ Risk is a part of sport and a part of life, he maintains. For example, in "Practices and Prudence," he writes:

Where it was possible to consider the goods to be achieved by sports practices as agent-independent, little headway seemed possible even in a society where it could be assumed that the basic goods of life were distributed in a just manner. The problem is that although risk appraisal is a statistical mat-

ter, risk taking is a personal one. Risk taking is not agent-independent, but, rather, relative to the overall circumstances and goals of individuals. (3: p. 246)

Some sports are riskier than other sports, and often it is this risk factor that makes one sport more appealing than another to a competitor. In "As American As Gatorade and Apple Pie: Performance Drugs and Sports," Brown adds:

In many sports, the activities of the sports themselves are far more dangerous than the use of any of the performance drugs that have even a bare chance of being effective. Deaths and injuries due to the use of performance drugs are rare But deaths and serious injuries due to the sports themselves number in the hundreds in sports like football, boxing, mountain climbing, hockey, cycling, and skiing. (4: p. 146)

Against Brown, I assert that harm is not exclusive to individuals (and thus not just a matter of personal choice), but it extends to sport itself. Sport is a social institution that not only reflects social values but also contributes to social and moral degeneration or betterment. When the risks involved in certain sports are so great for the individuals in them that competition is no longer a test of excellence, sport is reduced to risk-laden spectacle, without regard for the well-being of its individual competitors. What drives mavens of risk-laden competitions is the question, "Will this athlete or team escape unharmed?" instead of "How well will this athlete or team perform?" Societies that embrace such a notion of sport injuriously theatricalize sport at the expense of excellence. When this occurs, sport qua social institution is harmed, and sport itself becomes a vehicle for moral and social degeneration.⁵ Thus, ergogenic aids that promote risk at the expense of excellence should be no part of sport, and competitions that unduly weigh risk at the expense of excellence should not be socially sanctioned.

There is also a case for harm done interpersonally. In a recent publication (9), I argue that the most compelling argument against the use of pharmacological ergogenic aids like steroids or HGH is harm due to coercion. At the highest levels of sport, the slightest advantage can make the difference between placing first or tenth. Performance-enhancing drugs make for a substantial difference in performance. Athletes, like Jaimie Jo, who are drug-free and near the world's best have a weighty decision to make: Do I take performance-enhancing drugs and see whether I can be among the very best and risk my health, or do I refrain from taking them for reasons of health and give up on my dream to be among the best? For such elite athletes, the dilemma is very real. It is not only a "tough choice" that such athletes have to make; there are coercive elements afloat. The lure of being the best is great, but great too is the worry about the long-term effect of anabolic drugs on the body. The claim that the choice for such athletes is completely free is gratuitous.⁶

What holds for pharmacological ergogenic aids holds also for other ergogenic aids. This I call the principle of harm.

Principle of Harm (PH): If there is reasonable suspicion to think that some ergogenic aid is harmful to athletes or sport, then it should be banned for the good of athletes and sport.

This is not merely a qualitative principle. It applies to quantities of ergogenic aids also. Many supplements have significant ergogenic capacities when taken in large

amounts that can prove harmful to an athlete's body over time. For instance, research shows that increased protein intake improves muscle mass and strength. In one study, world-class Bulgarian weightlifters increased protein intake to over 300 grams per person, and there was a corresponding 5% increase in body mass and 6% increase in strength. Many athletes have a daily protein intake of over 200 grams. Studies show that protein that is not utilized is converted, in part, to ammonia, which is highly toxic. When more ammonia is generated than can be excreted, the kidneys become overloaded and the blood is literally poisoned (5: p. 153).

Also, many athletes use rigorous plyometric techniques to improve explosive-muscle firing in many sports. Weightlifters sometimes jump down from the top of a high platform, such as a staircase, and catch themselves below in a squatting position to improve ballistic strength out of that position. Such plyometric techniques are very dangerous to the tendons and ligaments—especially those around the knee. Is this sufficient harm to warrant a ban on such training techniques?

These examples, however, seem troubling. They illustrate a profound difficulty in instantiating PH. Do we want agencies, such as the International Olympic Committee, to regulate protein intake and training techniques of athletes in addition to all of the things they already monitor? How much political power should we allow such governing agencies to have? When does governance become intrusive and paternalistic?

If you buy into PH, and I do, this difficulty is not easily solved. Mill, perhaps the greatest champion of anti-paternalism, anticipated such tension and attempted a rebuff in his monumental work *On Liberty*. He states, "Each is the proper guardian of his own health, whether bodily or mental and spiritual. Mankind are greater gainers by suffering each other to live as seems good to themselves than by compelling each to live as seems good to the rest" (13: p. 72). Clearly, Mill acknowledges that we each must suffer a little "for the sake of the greater good of human freedom" (13: p. 149). In other words, there must be some degree of harm that each is willing to accept for humans to flourish through freedom. So, though risk-taking is *not* just a personal matter, *some* degree of risk taking is important in diverse democratic societies. The question now becomes this: Just when is the harm to athletes and sport so pronounced that PH should be invoked?

There is no easy answer to this question. I can only fall back upon a slightly modified version of the solution I offer in a recent publication of pharmacological ergogenic aids. This is a slightly stronger version of PH. Let me call it PHs.

Principle of Harm (strong): If there is reasonable suspicion to think that some ergogenic aid is harmful to athletes or sport and that this aid unduly weighs performance enhancement over concern for athletes, then it should be banned for the good of athletes and sport.

There is one final concern in this section: psychological tactics (e.g., trash talking, visualization, and psychological counseling) that enhance performance (directly or indirectly). Many tend to think that use of any types of psychological tactics is merely a means of gaining an upper hand by extra effort through cleverness. To some extent, this is correct. It takes extra work and some cleverness to employ any kind of psychological tactic. The question is: Does one draw a line and, if so, where? In what follows, I show that a line must be drawn for some

psychological tactics that enhance performance due to the harm they cause sport.

Visualization and psychological counseling seem unproblematic, but I suspect that opinion is divided when it comes to things like trash talking or taunting an opponent. Trash talking and taunting, having come into vogue with the great boxer Mohammed Ali, are indirect ergogenic aids that are common in professional sport today. The NFL, for example, has a policy against taunting, but none against trash talking.⁷

To deal with the issue of psychological tactics in sport, I fall back upon my notion of *Aretism*: sport as a social institution that integrates athletes with themselves, others, and sport itself (7, 8). As such, sport is a cooperative quest for excellence with a focus on engagement or process, not outcome. I articulate these sentiments in the following principle:

Principle of Aretic Respect (PAR): All sportive activities ought to be conducted principally with an eye to respect for self, others, and sport itself.

In keeping with my views on Aretism, psychological tools should only be employed when they are within the context of the rules of a particular sport *and* are not dehumanizing. Thus, trying to improve one's performance by throwing off an opponent is wrong. Likewise, any blatant disrespect for self, other, or sport itself is strictly unacceptable. Consequently, any attempt to gain the upper hand through unsettling an opponent harms sport and, thus, is unethical.

5. Ergogenic Aids and Skill

Let me now return to where I left off at the end of section three. Here I maintain, in agreement with Gardner, that it is not so much the notion of fairness or unfairness that is the issue with certain ergogenic aids, but rather the manner in which the advantage is gained. Let us go back to the examples of the knuckler and scuff-knuckler. Whereas a knuckle-ball, being tremendously difficult to throw and control, takes considerable practice to master, the scuff-knuckler can presumably give any competent pitcher an advantage without expenditure of skill. In short, scuff-knucklers, like spitballs, would be found objectionable because there is no perceptible enhancement of skill in their utilization.

So it seems we go some ways toward limiting ergogenicity with the following principle:

Principle of Enhancement of Skill (PES): When an ergogenic aid can be shown not to enhance athletes' skills, then it should be banned.

There are two things to notice about this principle. First, it is important to realize what does not follow from PES. It does not follow that ergogenic aids that *do* enhance skills without harm *must* be utilized. This is up to individual athletes, the governing body of a particular sport, or larger units that govern many sports like the NCAA or the IOC. Second, it is hard to tease out just what "to enhance athletes' skills" amounts to, for one could reasonably argue that throwing a scuff-knuckler takes skill too, though not as much as throwing a knuckleball. This objection notwithstanding, PES still seems beneficial.

Yet what of cases such as ergogenic swimsuits for competitive swimmers? Does a better suit enhance skill? It certainly does not seem so, yet there does not seem to be a good reason for banning it either. Swimmers who use such suits wind

up improving their times with no harm done to themselves and, seemingly, no harm done to sport. So there is reason to settle for a different version of PES, which I call PES*:

Principle of Enhancement of Skill (PES*):* When an ergogenic aid can be shown to enhance athletes' skills without significant harm to athletes, its use should be encouraged.

This version encourages use of those aids that do enhance athletes' skills, while it does not shut the door on ergogenic aids, like ergogenic swimsuits or even scuff-knucklers, that provide little or no enhancement of skill. What things do shut the door on some of these aids, I maintain, are aesthetic considerations. I turn to these now.

6. Aesthetics and Ergogenicity

It is unquestionable that some amount of ergogenicity is required in sport. Certain ergogenic aids, like visualization or distraction-control techniques, are manifestly laudable. Other ergogenic aids, such as use of HGH or anabolic steroids or throwing a spitball, seem morally objectionable. Still other ergogenic aids, like golf clubs that forgive bad swings or swimsuits that improve speed without enhancing skill, invite rigorous debate. Just where do we draw a line?

If my notion of Aretism is correct—that sport is a measure of excellence at three nested levels of integration—then there is more to say than that drawing a line is a fairly arbitrary procedure.

What I consider to be the most compelling argument for imposing limits on ergogenic aids is based on aesthetic, not ethical, considerations. Sport, played with due consideration for aretic ideals, has an ineliminable aesthetic component. It is this regard for the aesthetic that comes into play importantly in deciding the issue of ergogenicity.

Aesthetic Principle (AP): All ergogenic aids that detract from the aesthetic dimension of the athletic experience more than they enhance performance of athletes should be banned.

It might even be plausible that the aesthetic dimension of sport comes into play just insofar as PES* is optimized. This seems to be what David Best argues in "The Aesthetic and Sport," and this is a view that I find very attractive.⁸

For Best the aesthetic is more a way of perceiving an object or action than an objective feature of it. Yet aesthetic judgments are not inescapably subjective, for they happen only against a background of objective features and can be evaluated only by reference to them (2: pp. 117-119). For instance, the powerful surge and technical mastery of Edwin Moses in so many of his races, as he negotiated hurdle after hurdle and seemed almost effortlessly to streak to the finish line, were aesthetic. With Moses, efficiency of form, conceptual mastery of the task, and fluidity of motion were plain for all to judge.

The aesthetic, as a concept, is non-purposive and any object or event can admit of aesthetic evaluation, though some objects or events more readily admit of this than others. Evaluating the aesthetic element of some thing or action, however, cannot be a matter of perceiving it as a means toward some end. For example, to view a painting at all as a potential investment is to cease to see it as aesthetic.

Likewise to view Sheryl Swoopes gliding around two defenders on her way to a beautiful lay-up as nothing more than a two-point play is a failure of aesthetic perception. Yet to see Swoopes' move as nothing more than an aesthetic event is a failure of sportive understanding. This is so because in art, means equals end and the aesthetic is everything, while these are not the case with sport. No sport—not even ones such as rhythmic gymnastics or diving, where the aesthetic has a prominent part—is completely aesthetic (2: pp. 111-112).

Where there is no separation of means and end, every action in some aesthetic object or event is critical in its assessment. Therefore, the aesthetic in art or in sport is a sort of economy of effort. Critical assessment of the aesthetic, then, involves perceptual analysis of any deviation from this economical path. For example, too much of an upward bounce in a marathoner's stride is a deviation from the aesthetic.

Going back to AP, condonation or implementation of ergogenic aids must be done with an eye toward the aesthetic dimension in sport. As I suggest early in this paper, the aesthetic component in powerlifting, with the implementation of so many mechanical aids, has been severely defiled. With powerlifters' bodies being covered by so much inelastic material, it becomes difficult to see muscles (and people) move iron. Consequently, the sport has suffered.⁹ In contrast, Olympic lifting is beautiful much in part due to the elegance and simplicity it has because such mechanical aids are not allowed.

Of course, one can argue that there is nothing about the nature of sport that necessarily invites aesthetic considerations. Certainly, I do not disagree with this. My argument in this section (as well as in other publications) has been normative. Sport, as a social institution and normatively understood, is a quest for excellence, through integration, with social implications. Aretically apprehended, the aesthetic is and must be a part of sport. Thus, contests that fail to cultivate any aesthetic dimension, like tough-man brawling, have no claim to sport and should not be socially sanctioned.

7. Concluding Remarks

In this writing, I hope to have covered some ground on the problem of the imposition of limits to ergogenicity in sport. In the first four sections, I consider the ethical dimension through arguments from unnaturalness, unfairness, harm, and skill. My conclusions are as follows. First, there seems little profit in distinguishing between ergogenic aids that are natural and unnatural, since it is tremendously difficult to cash out this distinction clearly. Second, following Gardner, there seems to be little to gain by claiming certain ergogenic aids are morally objectionable because they are unfair, since it seems impossible to give a principled justification of this unfairness, and there are often ways of remedying whatever it is we consider to be unfair. Third, I have argued that harm does come into play with some types of ergogenic aids, and this can help decide fairly straightforwardly whether certain ergogenic aids should be banned or tolerated. Fourth, using a modified version of the principle of enhancement of skill, I argue that all ergogenic aids that enhance skill should be promoted. Last, turning to the aesthetic dimension, I maintain, in keeping with my aretic views of sport as excellence and integration, that employment of ergogenic aids must be tempered by aesthetic considerations. These aesthetic considerations, in turn, compliment the promotion of ergogenic aids that enhance skill.

Overall, the principles I have articulated ought not to be thought of as fool-proof guides for deciding if and when certain ergogenic aids should be accepted or banned from formal athletic competitions. My aim here has been chiefly to bring to light the larger issue of performance enhancement that seems to have been lost in all discussion of performance-enhancing drugs. Additionally, I hope to have established a platform for future substantive discussion on this much-neglected topic.

Bibliography

1. Adair, R.K. *The Physics of Baseball*. New York: Harper & Row, 1990.
2. Best, D. "The Aesthetic and Sport." In: *Philosophy of Sport: Critical Readings, Crucial Issues*, Holowchak, M.A. (Ed.). Upper Saddle River, NJ: Prentice-Hall, 2001, pp. 109-126.
3. Brown, W.M. "Practices and Prudence." *Journal of the Philosophy of Sport* xvii:71-84, 1990.
4. Brown, W.M. "As American As Gatorade and Apple Pie: Performance Drugs and Sports." In: *Ethics in Sport*, Morgan, W.J., Meier, K.V., and Schneider, A.J. (Eds.). Champaign, IL: Human Kinetics, 2001, pp. 142-168.
5. Colgan, M. *Optimum Sports Nutrition: Your Competitive Edge*. New York: Advanced Research Press, 1993.
6. Gardner, R. "On Performance-Enhancing Substances and the Unfair Advantage Argument." *Journal of the Philosophy of Sport* xvi:59-73, 1989.
7. Hoberman, J. "Listening to Steroids." In: *Ethics in Sport*, Morgan, W.J., Meier, K.V., and Schneider, A.J. (Eds.). Champaign, IL: Human Kinetics, 2001, pp. 107-118.
8. Holowchak, M. *Philosophy of Sport: Critical Readings, Crucial Issues*. Upper Saddle River, NJ: Prentice-Hall, 2001.
9. Holowchak, M. "Aretism and Pharmacological Ergogenic Aids: Taking a Shot at the Use of Steroids." *Journal of the Philosophy of Sport* xxvii:35-50, 2000.
10. Holowchak, M. "Moral Liberalism and the Atrophy of Sport: Autonomy, Desire, and Social Irresponsibility." *Contemporary Philosophy* xxii(1-2):30-37, 2000.
11. Holowchak, M. "The Ethics of Ergogenics." *Powerlifting USA* 18(8):26-27, 1995.
12. Lavin, M. "Sports and Drugs: Are the Current Bans Justified?" In: *Ethics in Sport*, Morgan, W.J., Meier, K.V., and Schneider, A.J. (Eds.). Champaign, IL: Human Kinetics, 2001, pp. 169-80.
13. Mill, J.S. *On Liberty*. New York: Penguin Books, 1985.
14. Simon, R.L. "Good Competition and Drug-Enhanced Performance." In: *Ethics in Sport*, Morgan, W.J., Meier, K.V., and Schneider, A.J. (Eds.). Champaign, IL: Human Kinetics, 2001, pp. 119-129.
15. Williams, M. "The Use of Nutritional Ergogenics Aids in Sports: Is It an Ethical Issue?" *International Journal of Sport Nutrition* 4:120-131, 1994.

Notes

¹Sports centered on lifting weights have paved the way for more scientific approaches to performance enhancement. Bodybuilders and strength athletes were pioneers in their use of anabolic steroids as well as in their insistence upon attention to diet to improve bodily shape, strength, and power.

²The two lifts of Olympic lifting are the snatch and the clean and jerk.

³Called somatotropin, which is secreted by the anterior pituitary gland.

⁴Brown and I debated the issue of performance-enhancing drugs at Ohio University on January 19, 2001.

⁵Much like the *ludi* of Roman times or the tough-man brawling of today.

⁶Especially when one considers that the playing field is leveled by simply maintaining the current ban on such anabolic drugs in formal athletic competitions.

⁷Shannon Sharpe, for instance, is one of the NFL's most celebrated trash talkers and one of its all-time best tight ends.

⁸Though it is not without certain defects.

⁹For instance, powerlifting contests were often televised in the 1980s, but they are not televised today. I believe the reason for this is the sport's use of mechanical ergogenic aids. It is commonplace for those who attend powerlifting contests—people who have had no prior exposure to the sport—to express confusion about the need of all such equipment.

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