

Chapter 2: Ethics

2.1 – Overview

While there are relatively few applied ethical issues that have clear conclusions for all ethicists and philosophers, sport appears to have made its conclusions about performance enhancement without first coming to terms with the complexity of the issue. (Miah, 2005 p. 56)

Over the past century or so, there has been increasing public pressure on elite athletes not only to be the “best on the day” but also to be the best there ever was. The origin of this obsession with record-breaking can be traced back to the ideal of systematic progress associated with classic liberalism. Since its origin, the idea has lost favour in most areas, as the negative consequences of such a process are realised. Elite sport is an area in which perpetual progress is still demanded; negative consequences, although not difficult to predict, are usually ignored.

In this chapter, some of the potential ethical consequences of elite sport in its modern form are investigated. Elite sport comprises much more than just competing athletes. Different possible methods for continuing performance enhancement are investigated, in an attempt to identify ethical possibilities so as to satisfy the desire for improvement without resorting to damaging practices such as doping.

It is suggested that an ethical basis for elite sport should be determined by ensuring, first that basic moral standards applicable to all human activity are met, and second that the most important purposes of sport are maintained, rather than expecting athletes to live up to a moral ideal that is not expected of others. The sustainability of perpetual sporting progress is questioned, however, and it is suggested that the only long-term viable state is for people to become satisfied with static sporting standards, as is the case with team sports.

2.2 – *What do we want from sport?*

In order to determine how sport ought to be regulated, it is necessary to first determine the purpose of sport, which aspects are ethical and ought to be promoted, and which are unethical and should be discouraged or banned. According to Miah (2005):

[A] quantitative enhancement to a sporting performance has no value, and is thus, unethical, unless the motivation behind using it implies something meaningful about *being* human.
(p. 51)

He goes on to suggest that gaining an advantage over one’s opponent does not imply ‘something meaningful about being human,’ and is therefore unethical. This is problematic, as essentially all of sport would have to be considered unethical according to this definition. A more moderate position is taken by Breivik (1998), who believes that elite sport should be ethically evaluated

according to its promotion of: performance, joy, cultural value, health, morals and social community. Simultaneous satisfaction of all these goals is not straightforward, if indeed possible. The problem then is to determine which of these goals are most important, which goals they are compatible and incompatible with, and the extent to which each of them can ethically be compromised.

In much of the literature on sports ethics, there is an assumption that athletes are supposed to provide a moral example for the rest of society (e.g. Holowchak (2005); Hsu (2004); Miah (2005)). Is this reasonable? Professional athletes bear a lot of similarities to high-profile artists such as musicians and actors, in that they make a living essentially by entertaining the public.ⁱ Actors and musicians aren't required to live up to higher ethical standards than the general public, often less so, in fact. Is it fair to consider athletes morally different to other kinds of performers, or in fact any other people?

Many of the rules and conventions governing elite sport are based on an ideal moral code that is not compatible with the very aspects of sport that make it appealing to both athletes and spectators. An Australian Sports Commission Report (2005) found that amongst the things that Australians, Britons and Canadians want from sport are: athletes who are fair and good role models; athletes who play in the spirit of the game; sport to remain untainted by cheating, violence, abuse etc; respect for and by all involved in sport. These are obviously all desirable moral attributes, but the report made no mention of sport's central characteristic: its inherently competitive nature. There are plenty of non-competitive activities that provide the public with good role models, are free from violence and abuse, are not prone to cheating, and achieve all these moral criteria to a greater extent than elite sports ever has. Church involvement is one example of a (usually) very moral activity, and yet it lacks the widespread public appeal associated with elite sport. People are primarily interested in sport not because of its moral examples, but because of the excitement it provides through competition. Like any other human endeavour, it is necessary for athletes to maintain satisfactory ethical standards, but this should not be mistaken for the *purpose* of sport.

Competition is central to sport. Like any other competition, it is based around an attempt to gain an advantage over one's opponent in order to win. Even as far back as the period of classical Greece, athletes were desperately focused on the importance of winning. Sport was taken seriously enough that like today's, it tended to be very individualistic, with high financial rewards for winners, professional athletes and public worship of heroes (Breivik, 1998). Rules that restrict the competitive nature of sport are not, as they intend, returning sport to its natural form, but often merely obstructing the competitive nature of sport, which is probably what attracted athletes and spectators to it in the first place.

Another appealing feature of sport, traceable back to classic liberalism, (Breivik, 1998; Loland, 1998) is the idea of equal opportunity: athletes should compete on a neutral basis in order to ensure that fair competition is possible. The financial status of the athlete and their country ideally should not affect their sporting chances. Unfortunately this is *never* the case; even in a sport that requires very little expensive equipment, any elite sport requires large amounts of leisure time to train and good nutrition which are not possible for very poor competitors.

Additionally, the liberal origins of modern sport attribute certain individual rights to those participating in sporting competitions, which allow them the freedom to choose how to act, provided their actions do not contradict the regulatory framework of the sport. If sport becomes over regulated, it may well lose its human element as the athletes become unable to express any individuality in the way they compete.

2.3 – Faster! Higher! Stronger!

The idea of systematic progress originated in the fifteenth century (Summers *et al.*, 2002) Recently the idea has been discarded in most areas as negative consequences become apparent; for example continuous population growth has led to food shortages and environmental damage. Sport is an area in which negative consequences are usually ignored. The Olympic motto: *Citius, Altius, Fortius!* – Faster, Higher, Stronger! is just one indication of modern sport's emphasis on continual improvement. The popularity of the Olympic ideal has not suffered, even after countless doping and cheating scandals have demonstrated its inherent unsustainability.

It is significant that the rapid increase of public interest in elite sports during the late eighteenth century coincided with the rise of liberal free market ideals. The definition of the liberal political tradition – “a conception of society which recognises the rights and liberties of individual citizens, within an overall social order to which individual citizens consent” (Summers *et al.*, 2002) might equally be used to describe the modern sporting tradition in which athletes are free to “perform, compete and be rewarded according to performance” (Breivik, 1998) within a set of predetermined rules to which they consent.

In the past, little more than natural talent, dedication and refinement of training techniques was enough to ensure that records continued to be broken. These days it is increasingly the case that improvements in sport are not merely the result of an athlete training a bit harder than anyone ever did before. Hard training will always be important, but the human body is a biologically and physiologically limited system, and only a certain level of athletic performance is possible, if all else remains equal (Breivik, 1998; Loland, 1998). All else has not remained equal, however, and improvements can be made even after the biological limit is reached by focusing on one of the other areas that has an effect on athletic performance.

Sport can be thought of as a system comprised of many different people and technologies, all working together to produce athletic performance. Breivik (1998) separates the system into the following groups, roughly in order of decreasing significance: athlete; coach; medical personnel and equipment support; science and technology; leaders and organisations; sponsors, marketing and business; media and public. The exact order obviously differs between sports, and there is a certain amount of overlap within the groups. In my opinion, science and technology ought not to be separated, but recognised as an inherent part of every other group. It is the technological aspect of each of these areas that has been responsible for a very large proportion of sporting improvements over the past few decades. Technological advancements tend to occur so quickly that traditional sporting regulations can become insufficient, and new rules must be developed in order to maintain control over the sport's development. In the next sections the nature of sporting rules regarding technology are investigated.

2.4 – Technology in sport

There are several types of technology that have had a major influence on the way sport is perceived by the public. The development of mass media was a major contributor to sport's transition from a pastime for wealthy people with a lot of spare time to the big business that it is now. Audiences for major sporting events are now in the billions worldwide,ⁱⁱ making sponsorship of large events or high-profile athletes an attractive way for companies to advertise. The rise over the last century of mass media has therefore acted to significantly raise the price, power and prestige associated with being a successful athlete.

Rapid scientific developments, in terms of both equipment and facilities and recording accuracy, have facilitated the increased public preoccupation with record-breaking. Conditions can now be closely controlled in many sports, and measurements are sufficiently accurate that performances can be assessed according to the nearest thousandth of a second, making even tiny improvements noteworthy. This, combined with other developments, has led to increased frequency at which records are broken, fuelling the public desire for more such occurrences.

After a period of rapid improvement in sporting achievements, most sports are now experiencing a reduced rate of improvement (Loland, 1998; Stefani, 1994). If sporting records are taken as a measure of human performance, then all sports must acknowledge that there is a human performance limit that will eventually be reached, after which no further human improvement will be possible. If society continues to demand that progress is made in sport, then once the biological limit is reached, new methods must be employed. The options for this are: 1) artificially altering the biological limit; 2) improving equipment and other technology utilised by athletes; 3) developing new sports as limits are reached in traditional sports. All three of these methods have occurred recently to some extent. Public perception varies dramatically between the different options, with none of them appearing to be particularly popular. It is worth noting

that despite the rise in popularity of new sports such as triathlon and snowboarding, public interest in traditional record sports such as athletics and swimming has not significantly declined.

Because the first two options both possess the capability of significantly altering the nature of current sports, there are various rules regulating the extent and manner in which either of them may be used. These rules are remarkably inconsistent between different sports in different countries and also often within the same sport and the same country.ⁱⁱⁱ A more consistent regulatory framework regarding technology in sport is needed.

2.5 – Regulating technology in sport

In order to ensure that sporting rules are able to achieve what they intend to, it is important to bear in mind why people play sport, why people watch sport and what they want from it. Rules limiting technology use must contend with the seemingly opposing liberal ideals of individual freedom and equal opportunity. With the addition of each new rule, it must be considered: does this rule encourage equal opportunity amongst the athletes or simply inhibit their freedom?

Doping has been used since competitive sport's Greek origins as a way to artificially alter the human biological limit (Breivik, 1998),^{iv} but became much more widespread and problematic in the last half century or so, as rapid medical technological advances were applied to athletes. The term 'doping' is notoriously difficult to define (Miah, 2005), but despite the difficulties associated with definition, it is generally agreed that the practice is unethical and detrimental to the quality of sport. In order to formulate rules banning the practice of doping, different sporting organisations have employed various definitions. One of the most common approaches avoids problems in defining the broad term by creating a list of banned practices that fall under the category.^v By avoiding a concrete definition different problems are created though, because regulatory authorities are forced to remain one step behind those who attempt to gain an artificial advantage. Practices can only be outlawed after they are used and discovered. Also, without a definitive idea of what doping is, it may not be clear what it is about doping that makes it unethical. This makes it difficult to attain consistency between rules regarding different types of technology in sport.

The second type of sports technology that is strictly regulated is the use of equipment. One reason for regulating equipment is in order to ensure that it is athletes who are competing rather than their equipment.^{vi} Mignon (2003) asks: "at what point does technology surpass the influence of an athlete's performance and in the process devalue the performance?" In order to answer this question, a clear understanding of what "value" sport contains is necessary. Motor sports is often cited as an example of technology becoming more important to the competition's outcome than the athlete's (driver's) performance, a progression that most sports do not wish to follow. According to Loland (1998), sport should be regulated so it "deals primarily with genuine,

human performances.” (p. 1) This is a difficult criterion, as there are some sports where there has always been a significant “non-human” aspect to the sport. Wind-tunnel testing of the AIS women’s skeleton team, for example, found a direct correlation between performance and drag coefficient. It is dubious whether drag coefficient can be considered a “human performance”. There are many other examples of sports that naturally advantage one body type over others. Rules such as the UCI’s which regulate the body position of cyclists in an attempt to prevent people altering a traditionally static property such as drag coefficient^{vii} merely benefit one arbitrarily chosen body type over another.

If *all* technological influences were eliminated, athletes in some sports would no longer be able to adequately express themselves in the way they compete. This would essentially reduce these sports to a competition between machines. This effect is clearly demonstrated in the attempts to determine the “real” hour record in cycling, by eliminating the influences of technology in order to properly compare cyclists from different periods and therefore different technology levels (e.g. Basset *et al.*, 1999; Genzling, 1984). The more detailed that hour-record comparisons get, correcting for technology, drag coefficient etc, the more the process resembles a mere comparison of average power output of the athletes. That isn’t cycling, and has none of the appeal of cycling. If average power output over one hour was a sport, few would play it or watch it, because it would be intensely boring. The real interest lies in the tactics and mind-games played by the athletes, and the use of technology forms part of this.

Furthermore, if equipment technology is completely banned, the only way that athletes are able to keep improving after the natural performance limit is reached is to turn to much less ethical technologies such as doping. By allowing technological developments in equipment, the inherent competitive nature of athletes has an outlet, and difficult to detect and far less ethical practices such as doping (or even potentially genetic modification) are less likely to be abused. By allowing certain types of technology, the process can be controlled more than if it were banned outright, potentially resulting in minimal use of unethical technology.

2.6 – What types of technology should be allowed?

Technology that is used in sport can be divided into the categories of those that: 1) make sport possible; 2) improve safety and reduce harm; 3) de-skill or re-skill sports; 4) dehumanise performances; and 5) increase participation and/ or spectatorship (Miah, 2005). Once again, these distinctions are not straightforward; most technology has aspects of several of these categories.

There is little question that technologies whose primary purpose falls into the first two categories should not be restricted. Technologies that cause sports to be de- or re-skilled or dehumanise performances are much more controversial, and a number of sports restrict the use of many such

technologies. The purpose of such restrictions is not always clear. The UCI asserts the following as the purpose of its rules regarding technology:

Bicycles shall comply with the *spirit and principle* of cycling as a sport. The spirit suggests that cyclists compete in competitions on an equal footing. [emphasis added] (UCI, 2002)

The suggestion that it is possible for athletes to compete “on an equal footing” is ridiculous; even if it were possible, it would certainly not be desirable. The concept of competition is not compatible with equality. The entire purpose of competition is to gain an advantage over one’s opponent. This occurs because of natural talent and training, but technological advantages play a legitimate role too. Technology has always (usually ethically) been used to gain a competitive advantage, from coaching technology to nutrition and physiotherapy. Such usages are legitimate, and so regulating technology in an attempt to create equality between the competitors is futile as well as misguided.

The UCI statement goes on to assert that “the primacy of man over machine,” needs to be maintained. This is a legitimate aim for technology regulations, but unfortunately the UCI regulations that attempt to achieve it are poorly implemented. The rules limit specific technological aspects, such as requiring that bikes weigh over 6.8kg. There are also limitations on other aspects of the bicycle including rider position. Despite these rules, the cost of top-end racing bicycles continues to rise, with professional cyclists typically racing on bikes that cost in excess of \$10 000. UCI regulations also often tend to be very inconsistently enforced. Some of the rules are frequently broken, but ignored by officials. Bicycle weight is one example of a rule that is usually not tested. At a recent track cycling event, bicycles were actually weighed, and the majority of riders were required to put ballast in their otherwise illegal bikes that they had been racing on all season in order to reach the required weight. At other times a legitimate innovation is banned shortly after it is developed. An example of this is Graeme Obree’s unusual position being banned in between the qualifying and final rounds of his attempt to defend his world pursuit title in 1994. The result of this inconsistency is that companies, professional teams or countries with large budgets are able to be technologically innovative; the risk of wasted money on an innovation that is subsequently banned is not large compared to their budget. Less wealthy organisations and individuals on the other hand cannot afford to take such a large financial risk. In effect, the UCI technology rules have achieved the exact opposite of what they intended. If the rules were relaxed somewhat, cheaper technologies such as altering cyclist position would have a large enough effect on performance that more expensive technologies would not provide such a significant advantage. Therefore, in my opinion, relaxing the technology restrictions in cycling may well put competitors on a more “equal footing,” by giving more affluent cyclists, countries and teams less of an advantage.

By suggesting that technology rules be relaxed does not suggest that their removal altogether is desirable. Technology that significantly risks athletes' or spectators' health and safety still ought to be restricted. Doping would be one example of technology that should be restricted according to these criteria. Equipment that is unstable, or unreliable would also be similarly restricted. The UCI requirement that aerodynamic helmets must also meet safety standards is an example of a sensible technological restriction, as was their action to ban a certain brand of wheels^{viii} that had exhibited catastrophic failure on several occasions, risking not only the cyclist using them but other competitors and spectators as well.

2.7 – The future of sporting performance

The fact remains, however, that only a finite amount of technological improvement is possible. Just as biological factors limit the possibilities of human performance, so too is there a technological limit that will eventually be reached. Although such a limit may well be encountered only in the distant future, it remains inevitable that the only sustainable option for sport is to eventually stop demanding perpetual progress, accept static sporting performances, and reduce the emphasis placed on record breaking.

Despite the inherent long-term limitations on performance enhancement, technology can play a role in performance enhancement, provided it remains within the ethical framework that is applicable to all human endeavours. The design of an improved pursuit bicycle was completed with this in mind.

i This is not usually the reason that athletes compete, however sponsoring businesses require publicity, meaning that athletes need people to want to watch them if they are going to get a lot of money.

ii For example, according to the Beijing Olympics Committee, “3.9 billion people (unduplicated) had access to the coverage of the Athens 2004 games.”

<http://en.beijing-2008.org/87/55/article211635587.shtml>

iii An example of this is the difference between the equipment allowed in United States Cycling Federation (relatively unrestricted) versus UCI-sanctioned races in the USA.

iv According to Breivik (1998): “Greek sport was desperately focused on the importance of winning and felt a corresponding shame over defeat. It was very individualistic, often brutal, with use of doping, with high money prices and rewards, with professional athletes, with the worship of heroes, with show for the masses, and so on.”

v ASDA regulates drugs in Australian sport in this manner.

vi Comments such as “Without the bike Sarah wouldn’t win,” by Milton Bloomfield, the designer of Sarah Ulmer’s world record-breaking pursuit bike, may cause people to believe that this point has already been reached. I believe that, in this case at least, such comments are simply the result of designer arrogance.

(Scott, D., ‘Optimum pedal wins medal’ from www.stuff.co.nz, 24/08/2004)

vii E.g. UCI rule no. 1.3.023

viii Spinergy Rev X