Views on Doping Within a Moral Relativist Framework

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Abstract:

Doping continues to be a long-standing concern in professional sports. A first question that arises is whether doping falls within the athlete’s freedom to do what they can to enhance their performance. After all there is non-equality in athletes’ physical state and drugs could be understood as another way of its enhancement in the same way that natural ways do that through training, lifting weights, etc. A second issue arising is whether or not is necessary to put limits on the research concerning these substances. So, two aspects of freedom are raised: (a) the freedom of the athlete, and (b) the freedom of the scientist. In this paper, these two sides are discussed on the basis of the theory of Moral Relativism. According to Moral Relativism the truth or justification of moral judgments is not absolute, but relative to the moral standard of a person or group. For (a) based on the theory, the athlete may consider that there is no absolute truth about doping, such as e.g., that it is wrong and not beneficial for sports, athletes, etc. The morally rightness of doping depends on the moral character of each athlete, the association or the country he/she represents. For b), a physician might argue that research in the field is not morally wrong. This is because it could potentially lead to cures for several diseases and even to the augmentation of human capabilities. Both questions are attempted to be answered through selected interview answers of athletes, trainers and physicians/pharmacologists.

Keywords: doping, moral relativism, freedom, athletes, trainers, physicians.

Introduction

The term “doping” originally referred to a mixed drug containing opium, which was used as a "narcotic drug" for horses. The expression was introduced in English Turf Sport around 1900 describing the illegal narcotic drug use in horse racing (Muller, 2000). Cases of amphetamine abuse in sports first appeared between 1950 and 1970. At first, agents of conventional doping were mainly stimulants (cocaine, caffeine, strychnine, etc.). Then synthetic phenethylamine derivatives were introduced [mainly amphetamine (Benzedrine) and...
methamphetamine (Pervitin) as potent stimulants, leading to their increased use in sports. The first categories of conventional doping agents included amphetamines and analeptics. Later on, various alkaloids (e.g., ephedrine, strychnine), narcotic drugs, and certain hormones were added (Thieme & Hemmersbach, 2004).

Today, doping is a serious issue in professional sports and championships. The ever-increasing pressure for records and performances, within a now commercialized sporting world, contributes to maintaining, and even maximizing, the phenomenon at a global level. This is inconsistent with somehow limited research of doping on an ethical level. This paper aspires to fill, to some extent, this gap. Specifically, two questions are being put forward and discussed. A first question is whether doping falls within the athlete's freedom to do what they can to enhance their performance. After all there is non-equality in athletes' physical state and drugs could be understood as an artificial way of its enhancement in the same way that natural ways do that through training, lifting weights, etc. A second issue arising is whether or not is necessary an establishment of limits on the research concerning these substances. Following this line of thought, two aspects of freedom are raised: (a) the freedom of the athlete, and (b) the freedom of the scientist. These two sides are discussed on the basis of the theory of Moral Relativism in light of selected interview responses of athletes, trainers and physicians/pharmacologists.

The Negative Side

The most plausible argument against doping is the fact that performance-enhancing pharmacological substances entail harmful consequences. In particular, they pose a significant risk to the health and lives of those who use them for the overwhelming promises these stimulants hold.

However, this may not be a strong reason to entirely reject the use of doping in terms of morality nor to impose a general ban. Rather, allowing competent adults and informed athletes to access performance-enhancing drugs is often presented as an anabolic drug use right. A right associated with the freedom of choice and taking responsibility for any consequences that may follow (Protopapadakis, 2020).

If we pose the question why we perceive doping as something wrongful, i.e., a morally unjustifiable choice, a first answer is because it can undoubtedly put the health, and even the life, of an athlete at extreme risk (Breitsameter, 2017). This is the only adequately documented consequence of doping, which is admittedly seen as a morally wrong choice. The argument of this position may be formulated as follows (Protopapadakis, 2020):

**Argument A**

1. If an action exposes one’s health or life to extreme risk, this action is morally wrong.
2. Doping exposes the athletes' health and life to extreme risk.
3. Doping is morally wrong.

The Natural/Unnatural Distinction

Our societies have accepted to a large extent the idea that doping as a kind of athletic performance manipulation is undesirable and requires control, regulation, and prohibition. With regard to the reasons for imposing bans on the use of doping substances, Schneider & Friedmann (2006) referred also to the issue of naturalness. Based on this position, doping is unnatural and inhumane. This argument seems weak for two reasons. Firstly, there is no solid ground to argue what is considered "unnatural" and "natural". Secondly, this term holds a degree of inaccuracy and inconsistency in relation to sports. For any characterization of "natural" and "unnatural", we could match different features. For example, spiked shoes are classified as a natural feature for long jump, while other features, such as testosterone, are included in the list of prohibited elements as unnatural. Here we observe a somewhat paradoxical finding. We see that an artificial product (see shoes) is considered natural and a natural hormone (see testosterone) is considered unnatural and therefore prohibited. Furthermore, certain
practices such as "psycho-doping" or preparatory mental manipulation of athletes are not prohibited, while the injection (i.e., exogenous administration) of a substance is prohibited (Butcher & Schneider, 1993).

In general, views favoring the free use of performance-enhancing agents in sports have been expressed by some researchers, yet to a limited extent. The main argument of this side is that since athletes are trying in legitimate methods to improve their performance, using natural methods of training, nutrition, psychological support, and adaptation, there are no obvious reasons for excluding other "non-natural" methods and substances, such as anabolic, steroids and more. Both methods can be used to enhance athletic performance. Although it would seem that the latter would grant an unfair advantage to athletes who can obtain these non-conventional doping agents, it can be argued nevertheless that specialized fitness equipment, advanced nutrition and psychological guidance also present a high cost. In the light of the above, it can be argued that the prohibition of performance-enhancing drugs should not cease because of some athletes can access better legal methods (Kious, 2008; Miah, 2006).

Furthermore, health risks are inherent in many forms of sports training. In this perspective, the prohibition of performance-enhancing agents may be inconsistent. The basis for such a prohibition implies a similar prohibition of types of training, such as lifting weights or performing certain movements that could potentially endanger the health of the athlete. Ideally, any prohibition should be grounded on an objective risk assessment that would evaluate narcotic drugs and training methods on an equal basis, rather than making prohibitions merely on the basis of categorizations. Such pro-enhancement arguments, regarding the conventional performance-enhancing drugs, might apply in the future even regarding the so-called gene doping (Miah, 2006).

The science of genetic enhancement and its application to a wide range of social activities requires closer examination. Further attention is required in the development of criteria and protocols that will provide a framework within which experimentation, testing and application can proceed. The use of these techniques has an impact on how we define humanity. Thus, it requires a careful consideration of ethics. It is a fact that sport represents a large share of human activity. It appears to be sensitive to the application of existing and future developments in the field of medical technology through treatment of human genes to enhance human characteristics (Thieme & Hemmersbach, 2004).

Powell (2001) mentions that some countries had initiated debate on this issue. This is critical because of the different views on genetics and its impact on society as well as because of the global effects of gene doping. It is a fact that sports provide a framework for ethical discussions about human genetics and the interesting value of being human. For this reason, the discussion of genetic modification in sports can be uniquely helpful in understanding the perspective that genetic technology can bring. In addition, important aspects of sports could remain (and even improve) in a genetically modified future. This is not to say that there are not serious ethical dilemmas arising from the perspective of genetic technology. Rather, the kinds of ethical problem do not refer just to the intuitive problems that constantly frame negative reactions to genetic technology (Miah, 2004).

A Moral Approach

It is known that the international sports community has long recognized the risks of all kinds of conventional (drugs) and non-conventional (e.g., genetic) doping. Yet only in the recent past strict and increasingly effective regulatory mechanisms have been put in place to detect and control drug-based doping. Nevertheless, athletes, coaches, and other involved parties continue to resort to illegal methods and substances at the first opportunity to gain a competitive advantage. This still takes place despite lessons from the past. A relevant example is the widespread, officially sanctioned, and operational doping programs established in the East Germany between the 1970s and 1980s,
which ultimately proved to be effective only in the short term and harmful to athletes in the long term (Schneider & Friedmann, 2006).

Modern sports are both a form of entertainment for the public and an activity in which huge amounts of money are invested to ensure victories. Prestige and national pride drive politicians and other institutions to demand victories. Athletes are driven by the athletic nature to take the risks that accompany competing, excelling, and winning, even at whatever cost of injury or other harm to themselves (Anderson, 2005).

As a result, athletes are particularly vulnerable to potentially harmful manipulations. These come from dishonest coaches, sports agents, and sports clubs, as well as federations that ignore the ideals of sport and the welfare of athletes in the interests of winning at all costs. The fact that certain sports are already full of numerous widespread forms of doping (that is, drug based) should convince even the most skeptical that all current and future developments in pharmacology, sports physiology and medicine will be based on increasingly sophisticated drugs, gene transfer technology, or other unrecognized yet technologies. Thus, they may be applied to the world of sports before finding the technology that could make them effective and truly safe at the same time (Anderson, 2005).

Any possibility of new intervention, which aims to the improvement and purity of competitive sports, the financial incentives of those involved, as well as the general perception of these developments in relation to doping has created a new landscape of emerging moral values. This is, in a sense, an expected outcome of what some theorists have called a “new visibility” (Nowotny & Testa, 2011). This new visibility presupposes the ability to access the fundamental level of nature. In the case of professional sport this access implies the possibility of enhancing the performance of athletes through direct intervention at the gene level (gene doping) using genetic elements or and cells (Nowotny & Testa, 2011).

So, seen from a different perspective, gene doping enables the identification of the most suitable sport for a future champion on the basis of his/her genes. It is clear that this “new visibility” through the expanded possibilities of controlling and manipulating biotic and abiotic nature leads society into a new spectrum of moral dilemmas. It is also clear that as long as science keeps dealing with the "rules of nature", discontinuities will arise with the established social and political concepts. These discontinuities do not arise merely from the moral weight we attach to particular achievements. They are not only linked to the question of what the term “winner” can denote within a context of expanded use of enhancing substances. Since the use of enhancing substances is a well-covered commonplace, the term “winner” or “champion” should refer to the effective use of these substances rather than the traditional athletic value of competition (Zanni, 2012).

Doping is also linked to the issue of improving performance. Every athlete represents a type of national capital, so the use of enhancing substances is very luring and consistent with an athletic ideal of exceptional performance. This performance is, for the most part, assessed in a very specific manner, i.e., by trying to exceed the best performance. This one-dimensional view that aims only at exceptional performance means that, in general, ethics will not be able to respond effectively to the speed of medical-scientific developments concerning human potential (Zanni, 2012).

But the role of ethics is and remains important. Moral Relativism is a theory that can explain the use of doping. Specifically, this theory is associated with the assertion thesis that among people there are deep and widespread moral disagreements. Also, the truth or justification of moral judgments is not absolute. It is but relative to a person’s or group of persons’ moral standard (Gowans, 2021).

How can this theory be connected to the phenomenon of doping. Let us examine what is happening today with professional sports. In recent years, sports have evolved into a highly competitive system and in a sense a professional activity, in which athletes try to give their best to
perform at their best. In contrast to recreational sports whose main features are to have fun and promote a healthier lifestyle, professional sports are characterized as competitive. They are now driven by the desire to expand the limits of achievement (even at the risk of the athlete's health) that until then moved within the framework of the humanly possible. In this sense, professional sports do not differ from other professional activities where individuals in the context of competition have the right to freely choose the level of sacrifice and risk, they are willing to accept in order to achieve victory and success (Tamburrini, 2006).

This leads to the question, why is a professional, in general, different from a top professional athlete? Prohibited substances and doping techniques are obviously in keeping with the 'spirit' of today's highly technical sporting world and fierce competition. In this sense, sport is no more inhumane than any other competitive professional activity. As in any other profession, individuals compete with each other, which is something that always entails a high cost of physical and psychological health (Devine, 2011). In this context, Morgan (2006) seems to propose a solution to the issue of doping. His argument is based on the moral relativist approach, where truth is always relative to some particular frame of reference, such as language or culture.

If we place into the framework of Moral Relativism the sanctions of violating the prohibition of doping, these should be submitted in relation to the specific cultural context in which the athlete (offender) has been brought up. In addition, the cultural pressures exerted on her/him by the society of her/his fellow athletes and the sports community should be taken into account. This cultural relativist critique, in theory, is perhaps the most powerful criticism of the World Anti-Doping Agency's (WADA) policy design (Beebe, 2010).

In general, Moral Relativism states that normative principles or statements must be judged in light of the values of the person, the group or culture in which they are made. For relativists, the fact that different cultures have different moral codes is a key element in understanding morality. Also, for them there is no objective truth in morality. All that exists are the different customs of different groups or societies. As far as these customs are concerned it cannot logically be said whether they are right or wrong from an objective point of view. To be able to judge any view, we should have an independent standard against which these different attitudes can be evaluated (Baghramian, 2019).

Relativists argue that there are no universal moral standards that can be applied to all people at all times. The only moral standards by which a society's practices can be judged are its own. Every effort is culturally bound to receive criticism from other cultural and ethical traditions. According to Rachels (2003), the argument behind Moral or Cultural Relativism is, from a logical point of view, not sound. The conclusion that there is no “objective” truth in morality does not follow from the premise that different people or cultures have different moral codes. The premise is about what people or cultural groups believe while the conclusion concerns what really is the case.

In the field of professional sport, we encounter the coexistence of different opinions about the supposedly morally wrong choice that follows doping. It also seems that there is a radical deviation in the regulations of world organizations regarding what should be done with the sanctions of athletes who use banned athletic performance-enhancing drugs (Baghramian, 2019).

Regarding doping at the national level and under Morgan’s above argument, there is the Anglo-Saxon point of view. This is based on the supposed injustice done by the user of doping (Morgan, 2006). In Scandinavia, particularly in Sweden, we find perhaps the strongest public opposition to any restriction of doping ban. Many people would like to see life bans imposed even for the initial offenses an athlete may commit. In other places of the world, however, people interested in sports seem to have a more relaxed attitude towards doping. They just don't seem to be that passionate, as WADA is, about...
achieving victory in the fight against doping. One might wonder here if this means that these sports communities have no sense of fairness or that they believe that not everything necessarily depends on competitive sport. What can be said is that their attitude may depend on other factors that must also be taken into account (Tamburrini & Tännsjö, 2005).

Given that athletes are subject to different kinds of pressures depending on the specific (sporting) moral and cultural landscape in which they operate, it may be better for international sports organizations to adopt differentiated, case-by-case sanctions for doping offences. These penalties would be based on the cultural setting of each country. Today’s standardization of doping sanctions ends up treating dissimilar cases in a similar way. Itpunishes even those athletes who might have been able to successfully resist the temptation against performance-enhancing and narcotic substances if they were in another environment (Tamburrini, 2006).

**Fair Play**

Furthermore, it has been argued that use of doping is unethical because such an action acts against the principle of "fair play". Doping unfairly increases, in comparison with opponents, the chances of victory. The perception of fair play as an expression of what is morally correct in sport is an important variable and may influence an athletes’ attitudes towards doping. It is also a subject which has so far received rather insufficient research attention.

Furthermore, the use of banned performance-enhancing substances in sport is linked to a moral choice, a choice based on the principles of right and wrong. Thus, personal morality, among other factors, is important (Dovovan, Egger, Kapernick, & Mendoza, 2002). Some scholars report that personal ethics may be the most important variable influencing athletes' attitudes towards doping (see Gucciardi, Jalleh, & Donovan, 2011; Jalleh, Donovan & Jobling, 2014). People’s actions depend on their moral standards and therefore we are all personally responsible for our actions (Boardley et al., 2017).

Another important factor related to moral behavior is moral identity. Aquino & Reed (2002) defined moral identity as a mechanism of self-regulation, a cognitive schema people hold about their moral character which reflects the importance one attaches to being a moral person. Moral identity can help maintain a balance between how we perceive ourselves as a moral self and our actions. Therefore, a strong moral identity can motivate athletes to act ethically as far as doping is concerned (Kavussanu et al., 2020).

**Views on Doping**

All the above give rise to a fundamental question of ethical nature, concerning freedom both at the level of a) athletes and coaches in the use of doping methods, and of b) scientists in their research activities in this field. What kind of freedom is there in these two categories of people and how can it be justified –if at all– in terms of Moral Relativism? The basis for answering this question will be selected responses from interviews with physicians/pharmacologists, athletes, and trainers in Greece. The interviews are part of an ongoing study conducted by an NTUA research team on drug stimulation enhancement in sports as a moral relativistic issue. Those responses (with the questions before) are presented below.

**Athletes**

- Do you think that although everyone has their individual responsibility, so to speak, personal choice, there are common values, such as fair play, in competitive sports?

Yes, nothing is fair; the demands, not enough money, records, chasing of athletes is not fair. Especially in individual sports. Young people who go to the gym have no fair play? Why aren’t there any controls? Aren’t they doing sports there? So, there’s fair play in championship sports? Where one trains with the best and other trains in the fields? Where one has sponsors and the best drugs ever that can’t be detected? And
another takes a something dumb and gets detected doped? It’s a dirty game, this whole thing. There are so many things to comment on. And it’s the whole situation, the money, the trade, these are to blame, not doping, for crying out loud.

- You said earlier that you would excuse athletes who make use (of doping) because they want to achieve their goals and, at the end, they are not harming someone else. Doesn’t that contradict the point you just made about fair play and respect for the opponent?

Yes, it contradicts. Simply since life is made in such a way where someone who has studied at a lower university can have lower earnings than a person who has studied at a more expensive university, without implying that one person’s knowledge is better than the other; I think that this is how life is made, which means that everyone uses whatever opportunity is given to them in order to achieve their personal goals. In an ideal world, all people would have to be equal to each other and I find hard to believe that this exists as a concept.

- Do you think that doping technology and substances can correct these inherent “weaknesses”, i.e. to make someone not so fast by nature, faster and more explosive?

I think that somebody who takes some substances does not think that they are less strong than somebody else, because the specific example of the weakest or strongest athlete, let’s say, does not show that the strongest athlete does not take substances. So for me it is purely about the personal improvement of the athlete and not about the correlation between athletes.

- What is "fair play" for you?

For me, it is to respect your opponent and your teammate... Whether everyone chooses for themselves to use doping or not brings only harm for them I believe. I am referring now to team sports, in individual sports there’s a big difference.

- Why do you think that?

Because I believe that in individual sports everyone is chasing after a record. It depends purely on themselves, whereas in the team you have to deal with your teammates so you might have got the best doping in the world, but if the rest of your teammates are not performing that day, it won’t be of use and it won’t pay off. You might jump higher, you might run a little bit faster, but if the team doesn’t help you show your talent, it’s not going to be of use.

- Let me ask an additional question. Do you think that the ban of doping is like putting a barrier to the development of science? Because science studies the athletes’ bodies and their physiology.

No, because it’s a different thing how we study the ways an athlete’s body reacts in a substance, and what effect it has, and it’s different thing the specific science that we implement and study how a body will jump higher, what food an athlete has to eat to endure, their breathing, their health, their blood, all of that. In all of this, it’s the pharmaceutical companies that will be disappointed, not the science of sport.

- From what you have told me so far, I understand that the use of doping for you is a matter of free will for each athlete. So you believe in the free will and independence of each athlete. But is this in conflict with fair play since there is an element of competition?

I believe that every athlete has free will when deciding whether to use doping or not, because they have reached a level where they have an opinion. I'm talking about people over 18 years old. When we’re talking about teenagers who are told by the coach "drink this" and their family doesn’t know and they also don’t know what “this” is, obviously there’s no free will, there's not even an opinion in this case.

Certainly, when you decide to dope you don’t care about your opponent, you don’t think “it’s going to be unfair to the guy I’m facing”. However, for me, fair play is in the context of the game, which means respecting my opponent, if they fall down, picking them up, not cursing them, not taking a misstep leading to their falling during the game. Now, you’ll say that if you have decided beforehand that you are going to beat your opponent because you are stronger and
have the ability to dope yourself, isn’t that against fair play? It is, but more romantically let’s say it is on the field and in the game. There I consider an athlete as someone who stands for fair play.

**Trainees**

- What is your opinion about "fair play"?

I have received many awards and fair play. There must be values in athletes. Humility, modesty, it’s what sport is all about. You struggle, you struggle first of all with yourself, not with your opponents. That’s why you have to respect the other person’s effort, whether they are first, second, third, it doesn’t matter. Did they struggle? Respect the other guy’s effort. Fair play is first and foremost the character of the athlete.

- Does doping contradict fair play?

What is the connection? I don’t think it has anything to do with fair play. What can I say? Someone who has the ability to be something, to take a substance because they have the ability to take it and they are a top athlete will feel guilty because the other person hasn’t taken substances and they are from a country where they can’t take substances; they have to say “oh fair play, no, I don’t feel like taking it because the other person isn’t taking it”. I don’t take because the other guy doesn’t take, but someone else will take, who doesn’t have a dilemma. Is this fair play? I think it’s irrelevant, even though people try to link it. Everybody would take if they wanted to and if they could, everybody would.

- What is fair play for you?

It is the most important of all. I will also add “on equal terms”. Unfortunately, in modern Olympic Games there is no such thing as a playing on equal terms. In older Olympic Games, records were not kept. There were Olympic winners without records. The modern Olympic Games are not like the ancient ones, they tend to be like the Roman games. ‘Citius, altius, fortius’ are not Greek, rather Roman. We can’t talk about fair play. We can talk about equal terms; athletes make that up themselves. We are talking about championship. We are talking about equal terms in preparation areas, in nutrition, in supplements, in food, in drug stimulation, in the safety of the athletes, depending on the budget that each country has, that’s where everything takes place.

**Physicians/Pharmacologists**

- Do you consider that it is up to the freedom/self-determination of each athlete to use such enhancers? [1]

Yes, but the athlete should consult a doctor, and trust and listen to him/her. Of course, every person has freedom of will, self-determination, they can do whatever they want with their bodies, take a sum of growth aids, a sum of diuretics, do as they feel, because they like to be faster, to win because they want to excel. But that becomes an empty quest, I think. Let’s say you became the national champion, so? Of course, for some people, it’s a lifelong dream, I understand that.

Of course, not everyone is like that, I think there are people with talent who can go high without much drug use. But there is always this use, there is always this pharmaceutical aid, whether these are called food supplements, food supplements that do not mention they have anabolic substances, there are also those that are food supplements with trace elements, those that have anabolic substances in them that are not listed... There was a survey in 2015: 80% of food supplements in Europe—a very large percentage—are with substances that are not listed in the description. This research was conducted in Belgium. And they are always recognized by the National Organization for Medicines (NOM). There’s a trap there because when people read NOM, they think it’s pure, whereas NOM grants a trade license. The trade license is given for anything, it doesn’t mean that NOM has checked the composition, it means that it provides permission to market this product only. Thus, everybody falls for it and we see read NOM in the description and we imagine that the composition has been checked, but it hasn’t been checked, because it doesn’t need to be checked to get a trade license. We need certification, that’s another thing. But nobody has changed this over the years, I guess because it’s convenient.
Do you think the development of enhancers has helped advance pharmacology and physiology? [1]

In some cases, it has definitely helped, because in every research there is a level that the scientist is experimenting, but depending on the studies. If those studies use the same rules, then they can be used as a comparative measure, otherwise we cannot have a concrete comparison between the athlete who makes use as a doping agent and the one who does it by following research. Moreover, in each person, these drugs react differently.

Advances in molecular genetics have created the potential to improve various features, including athletic performance, using technology in the human genome (genetic doping). How do you consider this technology to differ from substance-based doping (conventional doping)? [1]

On a theoretical level, this practice and genetic doping are different, because it can leave a change in an athlete’s body and in future generations. Meaning, it remains in the genetic code. This is the big issue and that’s why there are a lot of discussions and studies around it. The difference is that in a pharmacological doping, if someone does harm to themselves, it remains there, their children won’t have it. In the new kind of doping, called genetic doping, we don’t know to what extent we will have it in the future, that is to say, if any implemented change is inherited.

What serious ethical dilemmas arise from the prospect of using genetic technology in professional sport?

Perhaps the discussion is as to whether the change is permanent, whether it is acceptable, whether tomorrow it will be free for all and there may be some imbalance; take for example rich countries and poor countries that have other capabilities. It can be used to eliminate certain codes –an extreme scenario– characteristics, even races for example. If it is not under control, there is a problem. It’s called the CRISPR method.

Also, the question is if it is undetectable because it is a natural trait and not a substance that is then put into the organism.

Do you consider that it is up to the freedom/self-determination of each athlete to use such enhancing substances? [2]

Everyone always chooses what they want to do with the corresponding consequences. I think yes. It is a matter of choice.

Do you think that the development of enhancing substances has helped to advance pharmacology and physiology? [2]

No, I don’t think so. Every substance, every chemical that goes into an organism has negative side effects, even vitamin C. You don’t know what kind of admixtures have been made to sell this vitamin in pharmacies. If you can get the substances, you need from food you shouldn’t choose drugs at all. I have been kicked out of a pharmacy because I refuse to give people medicine for no reason.

Advances in molecular genetics have created the potential to improve various features, including athletic performance, using technology in the human genome (genetic doping). How do you consider this technology to differ from substance-based doping (conventional doping)? [2]

It can have effects that are even more dangerous than conventional doping. Even scientists cannot use this discipline in severe diseases. It’s called CRISPR technology, it introduces an enzyme that causes a DNA chain to break in a targeted way, and then they process the new data; no matter how carefully it is done it causes mutations. The chain break can be done in places we don’t want it to be, and so damage the DNA and even kill the cell. So, alterations are made that the cell may not be able to cope with and, finally, we get carcinogenesis.

I should also add that for both disease and doping, this technique can only be used once. That is, if there is then a disease, it cannot be fought, since antibodies against the virus have been created; it must be used if and when we are sure that it will have a perfect result, which is not possible and has not been proven.
Erythropoietin for example plays a role in the production of red blood cells, it is given to patients suffering from anemia, after kidney failure, or chemotherapy. How would an athlete want to change his or her gene to produce more red blood cells? In experiments on monkeys, it was shown to thicken the blood and clotting occurred. The effects of gene doping are unpredictable and, still, in the early stages. They can't be used for treatment in the spirit of sport, say for rapid body recovery and recuperation.

- Do you think that the development of enhancing substances has helped to advance pharmacology and physiology? [3]

No. The development of substances has nothing to do with research. Research in pharmacology and physiology is progressing regardless of whether substances are found to be used for doping.

- Advances in molecular genetics have created the potential to improve various features, including athletic performance, using technology in the human genome (genetic doping). How do you consider this technology to differ from substance-based doping (conventional doping)? [3]

Now we are talking. There is indeed this research that you are talking about, and it is implemented in some cases. What is the problem? We don't know genetically the evolution of a given athlete. We don't know years from now what will happen. It's one thing to use a genetic history when you’re 20 or 25 years old, when you’re thriving and strong, but I don’t know at 50 and 60 what the impact of that modification will be.

- Do you consider that it is up to the freedom/self-determination of each athlete to use such enhancing substances? [3]

When athletes are informed, then they know what will happen. It is like the use of narcotic drugs that we used to teach students in the past. Athletes should have insight about substances, the complications, and what will happen from continued use. Any young person that is going to make use in their life, they need to be informed. When you are informed and you want to use it, you have a corresponding responsibility.

**Conclusion**

Firstly, it should be pointed out that the opinions of the athletes, trainers and physicians/pharmacologists presented above are personal. Let us see what conclusions can be drawn from them.

**Athletes**

Doping is not the real issue in professional sports. The issue is the ever-increasing need for excellence, which is rooted in the commercialized nature of professional sports. This pressure combined with inequality in economic background, preparation and opportunities make athletes take advantage of any opportunity presented to them to achieve their goals. One of these opportunities is the use of prohibited substances.

Also, it seems that doping is not actually a way of correcting an athlete’s individual weaknesses. It is not something that follows from a comparison with one, e.g. better/stronger/faster athlete. It is a personal choice that may concern both "weak" and "strong" athletes.

The relationship between fair play and doping concerns the personal morality of an athlete. Fair play is, on a rather romantic level, what happens during the match and not outside of it (e.g. pre-match drug use). Regarding science, banning such substances does not affect research, because it is something completely different. Finally, every adult athlete has, after all, the freedom to choose whether to use doping or not.

**Trainers**

Fair play is identical with the character of the athlete. It refers to the personality of any athlete who must view her/himself as an opponent worthy of respect. In addition, fair play means on equal terms, which is not the case today mainly because there is constant pressure for records.

Doping is not connected to fair play. If you have the ability, based on the country you come from...
or for other reasons to do it at the expense of someone else, you are more likely to do it. You will not think about your opponent. And this is because there will always be another athlete who will definitely do it if he/she gets the chance.

Physicians/Pharmacologists

Three responses were presented [(1), (2), (3)]. Firstly, the use of doping lies in the freedom of an athlete, but the athlete should consult a doctor. The long-term effects of substances, banned or not, on each person's body are often unpredictable. Also, research at the level of nutritional supplements is so advanced that there may be substances there that have an anabolic effect and their use is certainly not prohibited. In some cases, the development of enhancers has helped advance pharmacology and physiology. In addition, on a theoretical level, conventional doping and genetic doping are different, because the latter can leave a change in an athlete’s body and in future generations, since it remains in the genetic code. There are serious ethical challenges arising from the prospect of using genetic technology in professional sport that refer to whether the change is permanent and whether in the future there may be some imbalance, for example rich countries and poor countries with different capabilities.

According to another view, the development of enhancing substances is not helping the advancement of pharmacology and physiology because every substance, every chemical that goes into an organism has negative side effects. If we can get the substances that we need from food we should not choose mixtures, vitamins and drugs at all. Furthermore, genetic doping differs significantly from substance-based doping since it has effects that are even more dangerous than conventional doping.

If we look again at the argument for the moral aspect of choosing doping (see above, Argument A) the first premise may be mainly about genetic doping. This interference in the genetic code exposes one’s health or life to extreme risk, making doping a morally wrong action. Genetic doping appears to be more dangerous than conventional doping, as it can have long-term side effects on the body. In fact, it is more dangerous because of our ignorance about its effect on humans.

Finally, according to a third view, the development of substances has nothing to do with research on pharmacology and physiology. Research is progressing regardless of whether substances will be found to be doping agents. As to the issue of the athlete’s freedom, each athlete that is informed on the effects of doping knows what will happen and thus is free to choose her/his actions.

In conclusion, based on the theory and the view expressed above, athletes consider that there is no absolute truth about doping. It is not something that it is wrong and not beneficial for sports, athletes, etc. The morally rightness of doping depends on the moral character of each athlete.

As far as the freedom of scientific research is concerned, it seems that there is no definitive answer. Research in the field in question is not morally wrong, mainly because it concerns different things than performance in sports.

Finally, regarding the moral dimension, because the focus is on the concept of freedom, the theory of Moral Relativism seems to apply better at the personal than at the collective-cultural level. However important the cultural factor behind each athlete's decisions, the use of doping as an action, outside the framework of fair play, remains primarily a personal choice based on the moral standing of each person.

Conflict of interests

No conflict of interest.

References


