



Presidenza del Consiglio dei Ministri

NATIONAL BIOETHICS COMMITTEE

ETHICS, SPORT AND DOPING

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Introduction

The Opinion tackles the issue of doping after a synthetic general framing of it within sport ethics. Sport ethics includes a variety of concerns and it would benefit from an even more articulated reflection. This document is a first analysis, focusing specifically on doping.

After a preliminary definition of sport and an outline of the recent social developments of professionalization, the document highlights the fundamental values of this practical activity: the personal commitment to demonstrate the athlete's abilities and the fairness of the competition. Doping is a disvalue because it fraudulently alters these conditions: it allows achieving results even in the absence of an active commitment, it introduces an unjust and unfair advantage when the participants are on a level, as well as causing – through an unwarranted manipulation of the body – harm to the athlete's psychophysical health which also has negative social repercussions. The unacceptability of doping is a shared feeling in society, as it violates the fundamental rules of sport from an individual and a relational point of view, changing the meaning of sport, which becomes a pursue of success in itself.

The Committee examines the arguments of those who are in favour of liberalising doping, in order to verify their strength. However, even those who believe that autonomy is a value to safeguard in sport (at least to avoid the secrecy of this phenomenon, collect reliable epidemiological data, subject the athletes to medical checks when they are using doping substances), do not ethically accept doping, as it would cause "harm to others", leading to doping even those who did not make use of it, in order to avoid being excluded from the competition, increasing healthcare costs for society because of the damage to health that would inevitably arise, making sport meaningless also in the collective imagination.

The Opinion also tackles some specific problems that emerge in relation to pharmacological research with the use of substances that cure illnesses for non-therapeutic purposes, or the use of therapies in the absence of pathologies and cases where the athletes have a genetic constitution that introduces a factor of "natural" advantage in the competition. These are specific matters that are inherent to general bioethical problems regarding health and illness, the improvement and the possible applications of pharmacological research.

The NBC's final hope is for an increase of and an improvement in the control of doping and for a commitment in education, especially aimed at teenagers who are the most vulnerable subjects.

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Demetrio Neri, Prof. Andrea Nicolussi, Prof. Laura Palazzani, Prof. Vittorio Possenti, Prof. Monica Toraldo di Francia, Prof. Giancarlo Umani Ronchi) with the exception of Prof. Carlo Flamigni's abstention. Prof. Stefano Canestrari communicated his agreement.

The President
Prof. Francesco Paolo Casavola

1. Outline of sport ethics

1.1 The notion of sport

Amongst the various aspects of human life which applied ethics deals with, sport has not provoked the same level of attention and amount of studies as other subjects. There is certainly some literature dedicated to sport ethics and philosophy and there are specialised journals that tackle the psychological, sociological, medical, etc. facets of actively practicing sport, but we definitely cannot say that this is one of the most important issues under reflection in applied ethics¹. When it becomes a priority, is mostly because of events and situations that are considered a threat to sport ethics: in particular those linked to doping and to the enormous financial interests now associated with most of the world of sport, especially, but not exclusively, professional sport.

It's not even easy to elaborate an *unambiguous* definition of the term sport, in order to clearly identify what type of human activity is included in the term or not or, at least, in order to find the boundary between sport and other similar activities, e.g. physical activity practiced to "keep fit" or for fun: all sports are games, but not all games are sport.

In fact, sport is a delicate balance between at least three different activities: physical, fun and agonistic. It is easy to observe how psychophysical integrity is the essential component of the first two activities, but it can be seriously put into question by the third when competitiveness becomes violent (e.g. boxing), dangerous (e.g. motor racing), or it reaches such exasperations of competitiveness that it seeks a result at all costs (as in the case of doping). However, no matter how evident and emphasized these negative aspects are, competitiveness is an essential and unavoidable aspect of sport: it is often what makes a physical and psychological commitment enjoyable and acceptable, when it would otherwise be difficult to tolerate. It is in this framework that even the risks and dangers of sport, if consciously and voluntarily accepted, can be a fundamental element of individual autonomy.

We could therefore think of a descriptive representation in the form of concentric circles, in which the central area identifies the notion of sport as the conditions necessary and sufficient for it and a series of concentric circles moving away from the centre, as one or more of the sufficient conditions are weakened and other characteristics begin to prevail, up to the most external circles where it is not clear anymore if we are witnessing a sport or a performance or a game or something else. But even identifying its necessary and sufficient conditions is still the object of debate: sport has an agonistic and competitive component, which can appear in an institutional or non-institutional context and with a stronger or weaker emphasis whether it is a professional or an amateur sport.

For the aims of this introduction, it can be useful to talk about sport in terms of its "practical" notion, as defined by the philosopher Alasdair MacIntyre, who took inspiration from sport (the example is American football) to construct this central notion in his idea of ethics: "Any coherent and complex form of socially established cooperative human activity, through which *goods internal* to that form of activity are realised in the course of trying

¹ For a first approach cf. A. Edgar, *Sport, Ethics of*, in *Encyclopaedia of Applied Ethics*, Academic Press, 1998, vol. 4 pp. 207-223.

to achieve those standards of excellence which are appropriate to, and partially definitive of that form of activity”².

1.2. Sport and values

What values are inherent to sport? In general, the function of values is to organise, integrate and make our conduct coherent in its various aspects and, also, to give reasons, motives to our actions: values make the objects, persons or practices they are applied to more significant and for this reason they are respected and inspire “attachment”. In competitive activity they have particular importance because they are an indispensable element in creating good relationships between athletes, between athletes and associations (teams and federations), between sport overall and the public.

It is especially in light of competitive activity that values have been elaborated to represent a sort of common thread along which the various sporting disciplines rest, each one then emphasises this or that value according to its internal needs: fairness, recognition and respect for others, honesty, observance of the rules, friendship, overcoming distinctions and discriminations, etc. These values, although inherent to sport, as they qualify it by marking the distinctive qualities (virtues) of the sportsman, evidently can be appreciated also outside of sport. And we can add that one of the reasons for judging sport positively in relation to the qualities of social life is that those values and those traits find within it the right conditions to develop and become stronger.

1.3 The concept of fair play

There is a notion that seems to be at the heart of sport ethics, the notion of fair play. It is difficult to translate this term and often Italian regulations of sporting disciplines also prefer to report it in English. It is not easy even to give it an exhaustive definition: it indicates, as well as a value, a sort of fundamental mental attitude, the “right spirit” with which to practice sport. We gather this from the 1976 Declaration on Fair Play by the International Council of Sport and Physical Education, recognized by the International Olympic Committee (IOC), which characterised it as follows: a) honesty, truthfulness and a firm and dignified attitude towards those who do not play fair; b) respect for other team members; c) respect for the adversaries, both when they win and when they lose, in the awareness that the adversary is a partner necessary to the sport; d) respect for the referees, shown through an effective effort of collaboration with them.

A more analytical explanation of these characteristics can be found in the Sport Ethics Code published in 1993 by the Council of Europe. It says that fair play must be intended not only like the right way of behaving, but also as “a way of thinking”, the characteristics of which are of an interest not only in sport, but they also enrich society overall. For this reason it is in society’s interest to protect the values inherent to fair play against all those external pressures that can translate in attacks against the essence of sport. And – as often happens for indeterminate concepts, which are easier to define negatively – the Council of Europe synthesises in the following terms those behaviours that are contrary to fair play and the external pressures that can

² A MacIntyre, *After Virtue. A Study in Moral Theory*. Duckworth, London, 1981.

have the effect of giving them a boost: cheating, tricks at the limit of legality (gamesmanship), doping, violence (physical and verbal), exploitation, inequality of opportunity, excessive commercialisation, corruption. To the list of destabilising external factors we could also add sports information (or at least part of it), with its daily effect of boosting a morbid collective fascination that involves and induces excitement, an often fanatical and always stressful exaltation: all the opposite of the notion of sport itself that, in its general meaning, refers to the fun, enjoyment, relaxation and recreation of those practicing sport and those watching the sporting event.

1.4. The professionalization of sport

Going back to the list formulated by the Council of Europe, it is not possible here to fully analyse the significance and the importance of the negative behaviours and factors that affect fair play: we would also risk fragmenting sporting practices into various subsystems, according to how those factors play out within them (we must think, for example, to the different importance of the “physical violence” aspect in sports that do not involve physical contact as opposed to those that do, like football, especially American football, ice hockey, not to mention boxing). It is necessary however to focus, in this introduction, on one of the factors that in the Council of Europe’s list is called “excessive commercialisation”, linked especially to professional sports, but that today is one of the main factors of erosion of sport’s intrinsic values, also because of the retroactive effect that professional models have on general sporting activity, especially for teenagers. With regards to this, we must remember that the Olympic movement was born, at the end of the 1800s, as a reaction to the beginning of the process of the professionalization of sport, which, from England, was starting to expand irreversibly: and many think that in that process (which transforms play into work) is the root of the dynamic that, almost inadvertently at the beginning, but exponentially in the second half of the 20th century, linked sport to considerations that previously, even though never completely absent, had little importance: politics, mass media, research and finally, most of all, economical interests³. It is a complex problem, the discussion of which goes beyond the limits of this document. Here we simply highlight two important points. The first is that the process of professionalization and expansion of sport goes together with the creation of sporting regulations, as a derivation of the organised exercise of some sporting activities cultivated by the ruling class and then taken on also by middle and working classes. “Modern sport” goes from “limited programme” competitiveness, to an “unlimited programme” competitiveness, in the sense that the ideal duration of the game become unlimited and, consequently, the organisational structures of play had to be modified, perfected and integrated in order to make them suitable to their new tasks. Therefore a profound organisational transformation takes place, which leads to issuing regulations with regards to the more rational and profitable ways to executing exercises and competitions.

We must not overlook the fact that another characteristic and foundation of unlimited programme competitiveness is the relevance and the progress, also unlimited, of sporting results. The results must be evaluated in space and

³ Cf., on this point, S. Rizzo, *Bioetica e sport. Nuovi principi per combattere il doping*, Il vascello ed., Cassino, 2006, pp. 30-38.

time, therefore it becomes necessary to have written rules in order to avoid the risk of variations that would make the result non-comparable, which instead must be checked, used and filed for any possible comparison. And it is the principle of the “record” in sport, with the need to establish general rules, which leads to the creation of national and international bodies drawing up and perfecting the rules in order to increase guarantee and control.

In Italy, interventions in this sector were set up in Law 401/1989 (“Interventi nel settore del gioco e delle scommesse clandestine e tutela della correttezza nello svolgimento delle competizioni agonistiche” and Law 376/2000 (“Disciplina della tutela sanitaria delle attività sportive e della lotta contro il doping”), which takes up again and renews the previous Law 1099/71 (“Tutela sanitaria delle attività sportive”). Generally the reason for intervening with a law has to be found in the expectation of “fairness” surrounding the sporting event framed promotionally. Public intervention in sporting activities is aimed at strengthening their social-pedagogic value, which is lacking if the agonistic activity is not carried out with honesty and fairness. “Each participant or spectator of a competition carried out under the aegis of a public organisation legitimately expects that it will happen perfectly in line with sport ethics rules”⁴.

The second important point is that the interests linked to professionalization have now taken hold also in the Olympic movement, eroding, at least in part, its original spirit. No scandal, certainly: after all, like any human activity, sport is also affected by historical changes and social evolution, and certain behavioural patterns, which could apply to sport at the beginning of the 1900s (when, for example, even employing a coach to improve performance was stigmatised), cannot be considered valid today and therefore must be reformulated to keep up with the times. It is not possible to compete at certain levels training two or three times a week in the local gym: but if the formative years are dedicated to sport, someone will have to think about providing a future free of worries for the athlete. Naturally, the big national and international sporting organisations are aware that it is impossible to go back to the “romantic” phase of sport and the adjective “excessive” together with “commercialisation” immediately clarifies that the Council of Europe and the IOC have accepted the idea (which however would have scandalised Baron De Coubertin) that the involvement of financial interests in sport is not to be judged completely negatively. We can agree on this: we cannot oppose the changes only because they are changes, we must assess their impact on sport and there is no doubt that commercialisation has supported the development of sport, even when not directly involved in the phenomenon of commercialisation. Therefore commercialisation is (or has become) a condition of sport, which can lead to wrong behaviours, but is not wrong in itself or, in any case, it would be illusory to think of eliminating it. But if this is true, then the problem seems to be about boundaries rather than principles: we can be firm about the principles, asking what the limit is beyond which the principles are violated. When does commercialisation become “excessive”? Where is the limit? Maybe we could push beyond the analysis and think that it is not even a question of quantitative limits, which are difficult to pinpoint, but rather an issue of how commercialisation, excessive or not,

⁴ T. Padovani, *Law 13.12.1989 number 401 (G.U. 18.12.1989, n. 294), Interventi nel settore del giuoco e delle scommesse clandestini e tutela della correttezza nello svolgimento di competizioni agonistiche*, in “Legislazione penale”, 1990, p. 92.

affects the intrinsic value of fair play: an athlete who informs his/her own sporting life and behaviour on fair play principles, and then even obtains a financial prize for his/her victory, does not violate any sport ethics principles.

1.5. Winning at any cost?

According to some analyses, however, the advent of commercialisation in the world of sport has acted as a flywheel for the spreading of a mentality aimed at emphasising the agonistic aspect over the fun aspect, and allowing “winning at any cost” to prevail over “the important thing is to participate”: as an American football coach declared, “winning is not the most important thing, it is the only thing that counts”. In this type of competition, according to some pessimistic but very realistic analyses, it becomes rather illusory to think of winning the battle against the spreading of doping only with repressive or “educational” instruments, and being unable or unwilling to tackle the roots of the problem: the mentality focused on winning at any cost, overcoming the limits, achieving a record, undoubtedly supported by the financial interests of the world of sport and also – in connection to them – by what the fans expect (also because of television) from sporting events.

We can also reasonably presume that the link between that mentality and the growing economic interests will intensify, in the near future, moral problems in sport, motivating the research of new methods of manipulation aimed at satisfying the principle which seems to dominate today’s sporting practice: overcoming limits, which – we have seen – seems to be the original sin of modern sport, at least of agonistic and competitive sport. In this context, we must not underestimate the fact that the development of biomedical research and the identification of the genes involved in controlling an increasing number of physiological processes, could put at our disposal new ways of intervening on human physiology. This is the so-called genetic doping, which uses for non-therapeutic purposes the transfer methods used for somatic gene therapy. Genetic doping has officially become part of the WADA (World Anti-Doping Agency) Anti-doping Code following the Copenhagen congress in March 2003 and since then WADA started research programmes aimed at identifying methodologies suitable to discovering the eventual use of this methodology⁵.

2. Doping

2.1 Definitions

The etymology of the term presumably comes from “dop”, an alcoholic substance taken by Zulu warriors to incite them before battle. From this the term “doping” which, at least in the sense it is used in the sporting world,

⁵ A lot of uncertainty still surrounds the effective practicability of this form of doping. We must in fact remember that, in the current state of knowledge, the use of gene transfers in somatic gene therapy programmes (started at the beginning of the 1990s) has not yet given the results that were hoped for and, at times, it has been followed by very serious negative events, which led to the suspension of these programmes. Even more uncertainty exists with regards to instruments capable of ascertaining the eventual use of this methodology for doping purposes. The point on these research programmes was made during the “Gene Doping Symposium” organised by the WADA in Saint Petersburg in June 2008: cf. site www.WADA-ama.org for further information on this topic.

means (in concise terms) “the improper use of substances or methods aimed at artificially improving physical performance by increasing muscular mass or resistance to fatigue”. In 2000 Law 376 (“Disciplina della tutela sanitaria delle attività sportive e della lotta contro il doping”) extended this formulation to “drugs, substances and practices aimed at changing the organism’s psychophysical or biological conditions in order to alter the athlete’s agonistic performance” (art. 1); where the term “alter” means both an “improvement as well as a worsening of the sporting performance due to the use of ergonomic or ergogenic doping substances and ergolytic doping substances; where the reference to the individual’s biological condition demonstrates a preventive rigour with regards to the athlete’s integrity through any kind of anatomic-functional perturbation, although not apt to displaying the noteworthy characteristics of psychophysical changes”⁶.

The same Law (Art. 2) compares doping: “to the fraudulent behaviour aimed at changing the results of the checks on the use of drugs, substances and practices” instead of only selectively modifying agonistic performance, an extension can be now found in the Code issued in 2003 by the WADA (World Anti-Doping Agency), which is better to quote in full:

“Doping is the presence in the athlete’s body of a prohibited substance, its metabolites and “markers”, therefore it is each athlete’s personal duty to ensure that no prohibited substance enters his/her organism. Athletes are responsible for any prohibited substance found to be present in his/her body.

Doping is the use or attempted use of a prohibited substance or a prohibited method.

Doping is refusing, or failing without compelling justification, to submit to sample collection, after notification, as authorised in applicable anti-doping rules; or otherwise evading sample collection.

Doping is the violation of applicable requirements regarding athlete availability for out-of-competition testing, including failure to provide required whereabouts information and “missed” tests which are declared based on reasonable rules.

Doping is tampering, or attempting to tamper, with any part of doping control.

Doping is the possession of prohibited substances and methods.

Doping is trafficking in any prohibited substance or prohibited method.

Doping is the administration or attempted administration of a prohibited substance or prohibited method to any athlete; assisting, encouraging, aiding, abetting, covering up or any other type of complicity involving an anti-doping rule violation.”

As we can see, this broad formulation included in the Anti-Doping Code also ratified in Italy, goes well beyond the previous definitions which sanctioned only illicit behaviour in sport: in fact it invests aspects (for example

⁶ E. Capodacqua in: *Doping Antidoping*, edited by S.D. Ferrara, Piccin, 2004. The classes of substances forbidden in Italy by Ministerial Decree 15-X-02 (G.U. 278 of 27 November 2002; Supplement 217) are the following: stimulants, narcotics, anabolic steroids, diuretics, peptide hormones, local anaesthetics, alcohol, derivatives of cannabis sativa and cannabis indica, glycol-corticosteroids, beta-blockers. With the subsequent Ministerial Decree of the 30th-XII-02 (G.U. 64 of 18 March 2003) this list is integrated with forbidden medical practices: haematic doping (amongst which CERA, long acting Epo), methods of artificially increasing Red Blood Cell mass, oxygen transporters, haemoglobin allosteric modifiers, substances that artificially modify PH and/or the overall quantity of blood, sample’s manipulation to alter its integrity, use of substances that alter the sample’s composition and concentration, myostatin inhibitors and finally genetic doping, which we mentioned.

refusing or avoiding checks or not being available for out-of-competition testing) that have more general ethical and legal implications and involves all the varied world of the “aspects” surrounding the athlete, and that are so precisely involved in the illicit behaviour.⁷

2.2. Historical outline

The history of the “little help” given to athletes, or autonomously taken by them to improve their sporting or athletic performance, is as old as the history of sport; even if at the beginning, as the prize for the athlete was a crown of laurels but especially his/her almost divinisation, the methods to achieve this result were not judged negatively.

The Egyptians and then the Greeks used herbal infusions or diets rich in sugar. As did Roman gladiators fighting in the arenas.

But we must look at the time of modern Olympics for the fraudulent use, (even if there was no specific regulation or effective control about this matter), of substances with a precise pharmacological stimulant (caffeine, strychnine, etc) or analgesic (cocaine, alcohol, etc.) effect. Up until the arrival, in pharmacology, of amphetamines, widely used in the second world war as stimulants and anti-tiredness by the soldiers. It was a lesson immediately learnt by the athletes, especially cyclists, amongst whom the first deaths due to the use of stimulants were recorded.

However, the newest fact was the arrival of anabolic steroids, difficult to detect, especially if taken away from the competition, and devoid of dramatic acute effects, even if the long term harmful effects are known. Subsequently, great emphasis has been given to the human growth hormone (hGH), that can be found in unlimited quantities with recombining methods and it is difficult to detect in the blood and/or urine if not in very indirect ways. Last but not least, the use of drugs capable of increasing the Red Blood Cell mass and therefore the intake of oxygen (Epo: synthetic erythropoietin), also very difficult to detect because the parameter of judgement (the hematocrit value), undergoes considerable personal, ethnical and environmental variations. Of this type are also the so-called oxygen “transporters” (synthetic haemoglobin, haemoglobin allosteric modifiers, etc.), and other substances mentioned above.

2.3 Investigations and numbers

We must first of all clarify that all reported statistics and percentages represent probably the “tip of the iceberg”, as they have been gathered in “official” settings (sporting and non), so that the great majority of the data that could presumably be obtained in non-official settings escaped being gathered (amateur gyms, “body-building” gyms, etc.). In fact, as it is often found, the secretive characteristics of this phenomenon hinder the implementation of epidemiologic investigations, which are still lacking today. Anti-doping tests carried out in IOC laboratories supply insufficient data for a statistical extrapolation and the accurate estimate of the phenomenon, because of the small number of athletes tested (130,000 according to the 2008 Wada Report;

⁷ On the complexity of the phenomenon and the various aspects that intervene cf. European Group on Ethics in Science and New Technology, *Ethical aspects arising from doping in sport*, 11th of November 1999.

about 10,000 a year in Italy according to Coni) and of the imprecision of research methods. The low statistical significance is therefore due to the small sampling of the tests carried out, faced with the tens of millions of athletes dedicated to sporting practices even outside of the competitive pinnacles.⁸ The percentage of the positive data is only apparently low (about 2% and therefore about 200 positive cases a year, according to Coni) because, as we have said, the significant data is invalidated by the low number of checks: in effect, if this data matched reality, we could not even talk of an emergency⁹.

The athletes' assessment of the phenomenon is also surprising. In a dated but significant survey carried out in Italy on 1015 athletes and 206 coaches, masseurs and sport's doctors, 30% of the athletes and 21% of the doctors was in favour of doping. About 10% of the athletes admitted using amphetamines and anabolic steroids, 7% "blood doping", 2% using beta-blockers. 62% (maybe the most worrying data) said to have been subjected to "pressure"; more than 70% said to have easy access to illegal substances, but 82% was in favour of more control.¹⁰

Much more dramatic the size of the phenomenon, for example, in the USA, where doping practices are reported for the 2-3% of non-athletes (2,7 amongst 10 and 13 years old), 5-11% in high school athletes, 17-20% in University athletes and up to 70% in professional athletes (of which 30-40% female). In addition, in a survey carried out at the Università del Veneto, some teenagers said that they would be prepared to die of the effects of doping in order to achieve a sporting success.

With regards to this, particularly dramatic is the problem of doping in teenagers, often deceived with the false tale of "integrators", which hide doping. Can a teenager have the serenity of judgement, the psychological maturity and the moral strength to resist the pressure that, at various levels and in different ways, comes from coaches, Sports Organisations, and often also families? Probably not, and this is maybe the most painful aspect of teenage doping, which burdens of further negative responsibility the hidden persuaders, who are responsible for a great harm, as well as physical (arrest of growth and sexual development), to young people's civil and moral conscience, who are "educated" to deceit, disloyalty and the negation of sport's ethically positive values¹¹.

Young people approaching sport not only have the right to be informed about the physical risks of taking illegal substances, but also to be educated to the ethical values of sport mentioned above, which can be summarised in the fundamental value of respecting your own body and other people's rights. A 1994 European Union directive (94/33 CE), aimed at the protection of under-age work, mentions in Article 5 "cultural and similar activities", amongst which sporting activities for children and teenagers. According to this directive, Member States must lay down authorisation procedures for the

⁸ S.A. Ferrara, *op. cit.*

⁹ To give an example of the little reliability of statistical data, an (out of competition) survey carried out by IOC in 2008 on 2000 blood and urine samples, published by WADA, reported a positive result on 41 cases, that is, 82%! (WADA, 2008 Annual Report). Such a discrepancy could be explained away with the hypothesis of a "cure" with doping agents during resting or training periods, to be opportunely suspended before the competition so that the athlete will come out "clean" in an eventual check. But these numbers are undoubtedly too small for a significant assessment.

¹⁰ V. Scarpino et al., "Lancet", 1990, 332, 1084, pp. 18-19.

¹¹ Cf. P. Binetti, *Doping e psicologia adolescenziale*, in *Bioetica e società*, edited by S. Fanuele, Laterza, Bari, 2004, p. 209 and following.

introduction of young people to the abovementioned activities. These procedures must respect the following conditions: the activities must not be harmful to: 1) the safety, health and development of young people, 2) their attendance at school or their participation in vocational guidance and training programmes. As this is the situation and also taken into account the protection that national laws and international conventions give to the correct psychophysical development of minors, it is evident that the administration of doping substances of any kind is a “violence” that can lead to both penal and civil prosecution for parents and third parties.

In past years, formative-educational interventions were promoted with regards to professional and amateur sport (see campaigns “I don’t risk my life” and “My life first of all” promoted in Italy by CONI through the Anti-doping Scientific Commission), interventions that however appear to be lacking in those environments where the phenomenon of doping is more dramatic, that is, “fitness” and “body building” gyms. In fact, in these environments, although generally the element of cheating in sport is missing, other particularly negative aspects come into play. First of all, the incredible quantity of the drugs – anabolic steroids and others – used in dosages that appear exaggerated even in zootechnics (from which often dosages and preparations are taken) and that therefore cause serious and permanent damages to health. Secondly, the reason for pharmacological interventions, which have purely “hedonistic” motivations (and often also financial outcomes), can be devoid of the “promotional” aspects (not to mention coercive) that could be “attenuating” factors certainly not from an ethical point of view, but with regards to any repressive measures. Last, but not least, the abovementioned scarcity of the checks, capable of generating a kind of conviction of impunity.

3. Ethical considerations

3.1 Complexity of the phenomenon

In the ethical evaluation of the doping phenomenon more general issues come in to play, from the question about the boundaries for the “manipulation” of the body to the controversy between “nature” and “nurture”, from the distinction between “recuperate” and “improve” the normal functioning of the organism (which involves the latent ambiguities in the concept of illness) to the value of biomedical and pharmacological research when applied to the world of sport, etc. In this document these general themes, about which, as known, there are very different views, will not be tackled in detail, even though, obviously, during this exposition we will touch upon how the different views on these more general themes have affected the ethical evaluation of the phenomenon. We will start here with the observation that the moral unacceptability of doping is widely recognised and we will discuss whether the reasons at the basis of this point of view can counter the reasons put forward by those who suggest different evaluations, who sometimes even ask for some kind of liberalisation of doping. Before entering into this discussion, it is useful to look at some issues that can highlight the complexity of the phenomenon.

The first point we must make is that the use of performance enhancing substances or methods happens also outside of institutionalised agonistic sporting practices (professional and non) and invests also amateur sporting practices or the exercise practiced in gyms to “keep fit” or improve physical

appearance¹². Although it is contradictory that people dedicated to an activity which is aimed mostly (if not solely) at keeping in good health, take substances that can in effect be harmful to health, it is a fact that the spreading of forms of doping goes beyond competitive sporting practices and, probably, it must be linked to more general psychological and social dynamics (the speeding up of life in post-industrial societies, the anxiety it generates of not being able to match the performance required in the models offered by the mass media, etc.) which are reflected, for example, in the growing use of drugs to enhance work performance or the use of drugs simply to “enjoy” free time: some athletes who turned out positive to cocaine admitted to having used it only to “keep up” and be able to go to the disco after the sporting event. These are undoubtedly important aspects in the general framework in which we must put the phenomenon of doping, but their analysis goes beyond the aims of this document.

3.2 Doping and pharmacological research

The second point regards the link between doping and pharmacological research. As it is clear from the list reported in paragraph 2.1, that the majority of the systems and substances (and their antidotes) used in doping practices come from pharmacological research and, generally, are primarily applied to curing human illnesses. Obviously, no-one doubts that pharmacological research is in itself positive, but – as recent news also shows us – there are laboratories solely and exclusively dedicated to the application of biomedical research to doping practices. An example¹³ often cited is that of the research by H. Lee Sweeney on IGF-1 to combat muscular dystrophy, from which comes the Nadia Rosenthal’s “Schwarzenegger mouse”: the first to take an interest in this research – revealed Sweeney – were coaches and athletes, and the WADA immediately vetoed the eventual use of the IGF gene transfer. No-one however would dream of judging Sweeney’s research negatively because of the use that it has been attempted to make of it.

We must however add that not always the abuse of therapeutic innovations needs organisations and laboratories dedicated to it. An example can be the administration (off labels, as they say) of legal drugs, not included in the list of prohibited substances, but in the absence of a specific pathologic need: for the only purpose, for example, of allowing the athlete to face sporting commitments that are near in time (because of the foolish, for purely commercial reasons, intensification of the sporting events’ calendar) and that do not consent a physiological recuperation from fatigue. It is not fully considered doping (although, thanks to it, there is an advantage): but the recent invention of the expression “almost ill” to justify the administration, by some football teams’ sports doctors, of a wide variety of drugs (especially anti-inflammatory and painkillers) to professional athletes raises some doubts, at least with regards to the truth of the statement that sport is good for your health. Naturally, in the background there is the controversy about the

¹² It makes us think, for example, the data emerged a few years ago from a study by the European Union on 23,000 sport’s centres in Belgium, Portugal, Italy and Germany, frequented by about 16 million people: 6% was regularly taking performance enhancing drugs. And we must observe that this percentage is even higher than the 1.72% of athletes using doping, which is what sporting organisations continue to declare.

¹³ Cf. President’s Council on Bioethics, *Beyond therapy: biotechnology and the pursuit of happiness. Chapter three: Superior performance*, Washington, 2003 (www.bioethics.gov).

possibility of tracing a line to divide therapeutic and non-therapeutic use, but the athletes' use of drugs focuses attention on another situation. As we have seen from the broad definition of doping elaborated by the WADA, this also involves taking substances that mask, and sometimes do not allow the discovery, of the presence of doping agents. Now, it is a fact that these substances often appear amongst drugs of widespread use and, as athletes can also be afflicted by various pathologies, rules that are too rigid risk affecting their right to health. In these cases sporting authorities prescribe that an athlete who has used "masking" substances (and prohibited according to the lists) must declare it before a competition, documenting the pathology he/she has suffered from in order to avoid being accused of doping: it is incredible however to find that at the Athens' Olympics a high number of participants (especially in swimming competitions and track and field events) declared suffering of asthma and having to take the appropriate drugs.

3.3 Doping, genetic make-up and sporting performance

The third point concerns a case that is different from those mentioned above, but which is equally significant in the complexity of the problems faced: not new, in truth, as sports authorities already had to tackle it at the beginning of the 1960s, but it has recently come to the forefront of the news after the victory of a female south African athlete at the recent athletics world championships. It is the case of athletes who have in their blood a high level of anabolic steroid hormones, because of an endocrine pathology, and therefore not fraudulently taken externally. This is the case, for example, of individuals affected by an altered functioning of the receptors in androgens¹⁴. The individual is phenotypically female but genetically male, with typically male androgen hormones which act especially at the muscular level. These are "women" (according to public records and the way they look) but masculinised, that is, with a high hypertrophic muscular mass. It is a peculiar condition: functionally analogous to doping, in the sense that it creates an advantage in the competition (they compete with normal females), but different from it, in the sense that the source of the excess of androgens is not "artificial" and fraudulent. The abovementioned Wada definition talks about the "presence of prohibited substances" in the athlete's body, but immediately after it clarifies that "it is each athlete's duty to ensure that no prohibited substance *enters* his/her organism". How should we judge this kind of cases?

According to some, if the "defect" is known before the competition, the subject must not be admitted or if admitted, she must undergo the same sanctions as the athlete using "hexogen" doping, taking advantage of more developed physical capabilities compared to the other competitors. Others however, observe that this exclusion would be contrary to the spirit of sport, as it would discriminate against a person on the basis of her genetic make-up, which is the result of a natural lottery in the distribution of genetic traits, with regards to which she has no fault (or guilt), but also no merit (see later). It must in fact be highlighted that, in reality, all athletes who win have been gifted by nature with some helpful ability. For example, an Australian research examined the gene ACTN3 in a group of male and female sprinters and associated the high frequency of a particular form of this gene to their performance in fast races. Should they be excluded from competing,

¹⁴ NBC, Minor's sexual differentiation disorders: bioethical aspects, 2010.

obviously after having subjected them to genetic analysis? In the '70s a Finnish athlete (Eero Maentyranta, winner of seven gold medals in three Olympics) was accused of doping because it was discovered that his blood contained 30% more red blood cells; subsequently, adequate research verified that he and other members of his family had a rare mutation of the gene producing the EPO hormone¹⁵. He was therefore absolved, as his advantage was due to his genetic make-up and not external practices, which other athletes subsequently started to turn to in order to achieve the same advantage: from altitude training to the use of "hyperbaric" tents and finally the introduction of EPO with increasingly sophisticated methodologies.

Regardless of the judgement on the merit of these examples, they focus our attention on the impact of a more general issue on sport, the use of biotechnologies to improve human beings' physical, psychological and intellectual performance. Naturally – as in all literature about genetic enhancement – we must include a measure of fantasy in presenting these possibilities, founded on a strong genetic determinism which nonetheless everyone considers, at the same time, scientifically wrong. Except in the case of phenotypic traits determined only by one gene, what is due to genes and what to other sources (and to the interaction between them and the genes) in complex phenotypic expressions – and athletic movement is amongst them – is a highly controversial issue from a scientific point of view.

It could be true that, if other environmental conditions are the same (including, as well as training, a good amount of luck, a favourable gust of wind or the right level of humidity, etc.) genetic make-up would make the difference in terms of victory: and seen as – as we have mentioned – there is no merit in having this or that genetic potential, someone proposed to allow the application of biotechnologies in sport, in order to "level" the original genetic gift¹⁶. This way we would achieve the result that victory would belong to the athlete who was better able to use, with creativity and training, the same genetic potential as the others, so that sport would become the realm of equality and merit. Obviously, there are numerous scientific, technical and organisational problems, which the proposal casually underestimates, including the identification of an instrument capable of ensuring the continuation in time of the initial levelling: otherwise, it is practically inevitable that the race to seeking an advantage that makes the difference would resurface and in the end the attention of the sporting world would move from the competition to the "preparation laboratories". We would face something different from what we call sport today and it is certainly not taken for granted that the public would have for the new athletes the same type of admiration manifested towards Usain Bolt, winner of the recent Olympics and 100 meters record holder.

3.4 Doping and the image of sport

As we have said, the reaction of public opinion towards the doping phenomenon in sport is certainly negative. An athlete who uses doping to enhance his/her performance is immediately stigmatised, at least as being

¹⁵ Cf. R. M. Green, *Babies by design. The ethics of genetic choice*, Yale University Press, New Haven, 2007 (chapter. I: Creating the Superathlete)

¹⁶ Cf., for example, J. Savulescu, B. Foddy, M. Clayton, *Why we should allow performance enhancing drugs in sport*, in "Journal of Sports Medicine", 2004, pp. 666-670.

guilty of “cheating in sport”, the public feels deceived, the sponsors rescind their endorsements and the sporting judiciary (and, in extreme, penal justice) intervene to sanction the illicit behaviour. At the basis of this negative reaction we can moreover identify a variety of reasons, but also intuitions and emotions, which involve the nature of sporting practice as it is commonly perceived. On the one hand, the recourse to doping negatively changes this perception, which is linked to the fact that we admire a sporting performance as we associate it with the athlete’s ability to pursue excellence by working on his/her body with his/her means and we feel that the great performances are diminished in terms of strength, speed, grace and cooperation when we discover that they have been achieved thanks to doping. On the other hand, the relationship between the physical, fun and agonistic element is profoundly altered, so that this last one becomes prevailing and controlling. Both the physical and the fun aspects would be lacking if the equality of conditions between participants, which doping alters, could not be guaranteed or if it was “compulsory”, for those who want to compete, to put their own health at risk if doping became, or would appear to become, habitual if not indispensable. This negative change in the image of sport is strengthened by the fact that doping is not only a form of fraud, carried out secretly in order to alter the natural condition and achieve (or at least try to achieve) an unfair advantage on the other competitors, but it alters its overall meaning, making the result more important than the competition, success more important than fun, unlimited manipulation more important than the balanced development of the body.

Doping must therefore be considered (and this is the first reason for the prohibition) a violation of the “fundamental” rules of sporting practice, (those that, in short, embody or make thinkable and possible any sporting practice, different from the “regulating” rules, those that determine the concrete implementation of the single practices): those who use doping, in a sense, self-exclude from sporting practices as they deliberately violate one of the fundamental and essential rules of sport, in particular that imposing honesty and forbidding any kind of fraud in order to protect the fairness of the competition as well as to avoid that the pursue of success becomes an end in itself, even if harmful to health. Being essential, this rule cannot be violated without, at the same time, nullifying the meaning of sport which that rule (together with the others) embody.

3.5 Liberalising the recourse to doping?

As well as safeguarding the image of sport and its future, the prohibition of doping is also connected, in official documents and in literature, to the protection of the health of all the participants to sporting practices. Although there is no accurate epidemiological data (also given the difficulty of carrying out this kind of investigations), there is sufficient evidence about the harm that the systematic use of doping causes, harm that is in addition to that caused by many sporting activities to the physical health of those participating in them.

With regards to this, during the debate it was suggested to liberalise the recourse to doping on the basis of the argument “minimising the damage”. The basic idea is that the current policy of prohibition has not been able (as sometimes happens, also in other fields, with prohibitionist policies) to limit the phenomenon, probably also because it has not been followed by deterrents aimed at affecting other phenomena boosting the spreading of doping (and

first of all its commercialisation); and in addition it caused further harm to athletes' health due to the secretive character of doping, which at times appears as a sort of "wild" experimentation (see the case of Tetrahydrogestrinone, THG, a substance without any therapeutic value and produced only to enhance sporting performances). It would therefore be better to liberalise doping, leaving to the athlete's autonomous assessment the decision to use it or not, and in any case keeping under medical observation those who use it. This would also achieve the result of making it possible to collect epidemiological data (which are now missing or occasional) on the harmful effects of doping, therefore allowing the development of adequate countermeasures.¹⁷

Evidently, this reasoning starts from the perspective of a consequentialist ethics, excluding therefore a deontological point of view based on the respect of the abovementioned values of sport or on the moral duty to protect health. It must however be observed that even in the consequentialist perspective the value of the argument depends on a correct assessment of the consequences. With regards to "minimising the damage", it must be said that liberalisation could maybe allow the reduction of the additional damage connected to secrecy, but certainly not the harm linked to the use, even if "controlled", of doping substances: if it is true that these substances have harmful effects, these effects would surface whether they were liberalised or clandestine. What would change is the quantity, but it is not sure that this change would lead towards a decrease: this may be true for the individual athlete, but it is probable that the overall quantity of damage would increase because of the higher number of athletes who, if liberalised, could recur to doping. Additionally, the objective of minimising the damages, reasonable in the context of policies aimed at relatively eliminating the phenomenon, is recognised as harmful also by those suggesting its liberalisation: but it is not completely incontrovertible that this final objective can be achieved, or at least there is no evidence of it. Finally, it must be stressed that there are no reasons to think that the liberalisation of doping would hand back to the athletes a real choice; instead, it is more plausible to think that liberalisation (unless we imagine the invention of a double circuit for sport) would increase the environmental pressures which already strongly limit the athletes' autonomy.

3.6 Doping and individual autonomy

It is necessary to briefly focus on this point, as it entails positions involving the principle of self-determination to assert that if an athlete, aware of the harm that doping can cause to his/her health, decides to use it, balancing long term damages and immediate benefits (also financial), he/she should be free to do so and therefore the prohibition of doping would be an unacceptable form of limitation of personal autonomy.

The notion of autonomy that these positions refer to is evidently not that, of Kantian origin, contemplating the existence of "duties towards yourself", amongst which we can include the duty to protect our own health and to not consider our body as a means to an end: in this framework, doping can be considered morally unacceptable as a violation of the duties towards

¹⁷ Cf. B. Kayser, A. Mauron, A. Miah, *Viewpoint: Legalisation of Performance-Enhancing Drugs*, in "The Lancet", Dec. 2005.

ourselves. However, even in a view of autonomy different from the Kantian perspective (for example, that of the liberal tradition referring to J. Stuart Mill), we can observe how the prohibition of doping is not a suppression of individual autonomy. In fact, each participant to sport freely accepts to respect the rule prohibiting doping in order to safeguard the participants' health. Being freely accepted, the rule does not violate the principle of autonomy: no-one is forced to take part in an activity the rules of which they do not intend to accept. Additionally, we must observe that doping produces effects that limit the individual autonomy of those using it: it is typical that those who resort to doping and are discovered do not justify themselves by appealing to their self-determination, but to the direct and indirect pressures exercised on them by the environment, which are therefore a limitation on their real possibility of choice.

It can however be observed that it is certainly possible to express a negative moral judgement, or at least of "foolishness", towards those who knowingly risk their own health for immediate benefits: however, not always the disvalue linked to a certain behaviour is sufficient reason for a prohibition. There are many known examples of morally deplorable behaviours or that put health or life at risk (smoking, "extreme sports", etc.), which nevertheless are not legally prohibited: instead, society accepts the additional costs and it does not discriminate against foolish behaviours with regards to the access to medical care. In the case of doping, however, this consideration does not hold: the effect of limiting individual autonomy and the harm to health does not affect only those who resort to doping. In fact, even worse is the suppression of the other athletes' self-determination, which involves the principle of harm to others as the reason why society limits the exercise of individual self-determination¹⁸. There is no doubt that the recourse to doping causes harm to those who would prefer not to use it, but is defrauded of the right to a fair competition, and could be induced to doping to avoid finding him/herself in a situation of inferiority in competing for victory; and also harm to society, not so much – as we have said – for the additional healthcare costs, but also and mostly because society invests a lot in the promotion of sport and the essence of one of the social activities most appreciated for its social and moral values would be falsified, or at least weakened.

Sport is a social experience and as such requires rules founded on a certain notion of this social experience. The generally shared idea that doping should be forbidden presumes that the aim of sport is not exclusively victory but that such result must be measured through the means used by the athletes in competition. After all, a good competition, a good athletic act, sporting behaviour, fair play are assessments of the athletes' behaviour and of the competition, beyond the simple result. So, it is not about imposing a rule from the outside, according to which the athlete cannot achieve victory by using any means, but it is sportsmanship itself to require that he/she makes an effort to achieve it within certain rules that are not extrinsic, but that express the essence of sport. It's no coincidence, after all, that we use the expression "sporting discipline" to refer to a certain sporting activity and its rules.

¹⁸ Cf. M. Balistreri, *Questioni etiche riguardanti l'uso di sostanze dopanti nello sport*, in Various authors, *Sport e doping. Riflessioni*, edited by M. Vincenti, Priuli & Verlucca, Ivrea, 2009.

On the other hand, being a physical activity, the principle of the respect of human dignity translates here first of all as respect for our own and other people's body, whilst doping, which sacrifices even the health of the people who resort to it, reduces the body simply to a means to an end. Financial and social pressures towards the use of doping substances can consequently be seen, constitutionally, as obstacles hindering sport from continuing to be an activity that develops the human being and the prohibition of doping is therefore a small measure – which should be accompanied by other forms of protection – amongst the Republic's duties to remove the financial and social obstacles limiting freedom and equality and therefore the full development of the human being (Article 3 of the Italian Constitution). In conclusion, it is not possible to share the idea that the prohibition of doping is, purely and simply, an interference to athletes' individual freedom, being rather a necessarily common rule which athletes should accept as the condition to stop sport from degrading into something else, remaining instead an individually and socially useful activity.

CONCLUSIONS AND RECOMMENDATIONS

- 1) The judgement on the ethical disvalue of the recourse to doping, which this document wants to reaffirm, is based on a variety of reasons, which range from the need to safeguard the athletes' physical health and their real autonomy of choice to the moral values intrinsic to sport and to the preservation of the meaning of sport in the collective imagination. Although there are different assessments of whether these reasons are able to overcome a certain rational scrutiny, it does not appear however that the reasons given by those against the prohibition of doping are completely convincing or devoid of limitations.
- 2) The sporting spirit, as such, is the spirit of a competition between athletes who, refining their physical capabilities, are able through training, effort, sporting intelligence and strength of will, to express an essential aspect of our common human identity, that of "merit", which does not only depend on the natural gifts each of us receive from birth, but especially on how each person makes an effort to use them in building their identity (particularly, the identity of athlete).
- 3) The NBC hopes that any action counteracting the spreading of doping will be strengthened not only by emphasising checks¹⁹ and the use of innovative monitoring instruments²⁰, but also by increasing information and education, in particular for the young and the amateurs, to whom the Code issued by the Council of Europe is

¹⁹ It does not go in this direction what has been cited in the Ministry of Health's Report to the Parliament about the activity carried out in 2008 by the Anti-doping Commission. In fact, it laments a cut in the funds available which allowed fewer checks than in previous years, mostly focused on cyclists, swimmers and footballers. The data remains nevertheless alarming, having recorded a considerable increase of positive results in the amateur sector.

²⁰ Since the 1st of December 2009 the WADA started the "biological passport" as an experiment, an instrument that would allow to monitor in time each athlete's biological variants and therefore to discover more easily the changes, eventually due to doping, of the usual values of the substances present in the athletes' blood and urine.

aimed. Involving the responsibility of governments, sports organisations and single individuals (parents, teachers, coaches, doctors, etc.), the Code aims at building around the teenager a sort of protective sphere based on the principle that “those playing fair are always winners” and that therefore the fun and formative aspect of sport should prevail on the agonistic and competitive aspect. The idea (or at least the hope) is that if young people grow and practice sport in this way, they will mature a strength of character that will make them stronger in resisting external pressures. Maybe we can agree that in the long term this is the only possible winning strategy, at least if society wants to continue seeing sport as an element of the quality of life; but at the same time we cannot disagree about the enormity of the task to be carried out, but also on its fragility, especially because of the retroactive effects that the current way of practicing sport involves and the models it proposes, also through the mass media. To realise the objective proposed by the Council of Europe we should immediately carry out many and huge changes, also in attitudes and now inveterate habits: the task is not easy, but it is indispensable if our society wants to continue including sport amongst the elements that make up the quality of life.