Doping as Technology: A Re-Reading of the History of Performance-Enhancing Substance Use

Dr Bernat López
Department of Communication Studies, Universitat Rovira i Virgili, Spain

November 2010

Editors: Professor David Rowe and Dr Reena Dobson
Doping as Technology: A Re-Reading of the History of Performance-Enhancing Substance Use

Bernat López
Department of Communication Studies, Universitat Rovira i Virgili, Spain

As a society we are schizophrenic about machines. On the one hand, although perhaps with an increasingly jaundiced eye, we still believe in the inevitability of progress. On the other hand we control every advance by conforming it so that it ‘fits’ to pre-existing social patterns (Winston, 1998: 11).

Introduction

The former French professional cyclist Christophe Bassons, who garnered notoriety in the late 1990s and early 2000s as an outspoken critic of the doping culture in cycling, provides the following definition of the concept of doping in his book Positif: ‘Doping is any exogenous input contributing to an artificial development of the physical capacities. It is not doping that is required to contribute to a natural improvement of the body’ (Bassons, 2000: 247).1

This is a classical approach to the concept insofar as many definitions – explicit as well as implicit – used by anti-doping and sports organisations as well as its officials and supporters, revolve around the dichotomies of natural vs. artificial, and endogenous vs. external. Bassons’ definition, in fact, closely follows the wording of the first ever officially adopted definition of doping, which was proposed by the Council of Europe in 1963:

the administration to or the use by, a competing athlete of any substance foreign to the body or any physiological substance taken in abnormal quantity or by an abnormal route of entry into the body, with the sole intention of increasing in an artificial and unfair manner his performance in competition (quoted in Houlihan, 2002: 151).

Even though the Council of Europe soon abandoned this problematic definition in favour of a less ambiguous one (Houlihan, 2002: 152), the (blurred) frontier separating these two pairs of words has continued to set the limits between what is acceptable/ethical/allowed/legal, and what is unacceptable/unethical/forbidden/criminal concerning the use of performance-enhancing substances and techniques.

Bassons’ experience and opinions are brought to this paper as they illustrate a central and underlying tension in the anti-doping debate: between continuity/tradition and

1 ‘Est dopage tout apport exogène qui conduit à développer artificiellement les facultés physiques. N’est pas dopage toute sollicitation qui contribue à bonifier naturellement le corps.’
innovation. The following rhetorical question by two other anti-doping campaigners, Pierre Ballester and David Walsh, neatly articulates this tension: ‘Is sport still a playing field or a field of experimentation?’ (Ballester and Walsh, 2006: 17).

The question, as it is posed, seems to be based on the un-stated premise (apparently underlying their whole book) that sport cannot be at the same time a playing field and a field of experimentation. Or, in other words, it can only be a playing field, because as soon as it would turn into a field of experimentation it would cease to deserve the label sport. But this is obviously untrue. There is no need to be a sports historian to realise that the dialectics between continuity and innovation (or experimentation) is one of the central driving forces in the evolution of contemporary sport. Or, in other words, experimentation is in sport’s DNA, albeit in an unstable and often conflicting balance with continuity/tradition.

The stance concerning doping proposed in this paper is, therefore, that it is a form of technology. Performance-enhancing techniques and substances should be primarily and precisely considered as a form of bio-medical technology. Hopefully, there is no need to appeal to any scholarly authority to support the widely assumed claim that technology is in itself morally neutral: what is morally qualifiable is the use that human beings make of it. The blanket ban imposed by anti-doping agencies on the use of a wide range of certain biochemical and biotechnological substances and techniques in any amount and/or frequency, but not on others (see Møller, 2004 and Houlihan, 2002), suggests a failure to acknowledge this basic point.

Taking these ideas as its premise, this paper aims at a re-reading of the history of doping and anti-doping in the light of the interpretive frame proposed by the media scholar and historian Brian Winston (1998), in order to analyse the processes of technological change and innovation. What makes this model especially interesting and useful is its dialectical approach to these processes: its results are always the outcome of a tension between ‘supervening social necessities’ and ‘the law of suppression of the radical potential’ (see below for an explanation of these terms). Although Winston focuses on media and information technology, his understanding of the dynamics of technological change can arguably be applied to the analysis of doping as technology, and, indeed, of any kind of technology.

On the Inescapable Technological Nature of Sport

In his book, Bassons explains his firm rejection of doping during his career as a professional cyclist. As well as totally rejecting steroids or growth hormone intake, for a long time, he went so far as to refuse any kind of recovery intervention, including the seemingly innocuous drips of water and glucose (until he eventually ‘gave in’ to the temptation). However, even by his own account, Bassons was not against foreign substances for supplementation or recovery purposes. For instance, he explains that, as an amateur, he once went to the doctor feeling unwell and was diagnosed with an iron deficiency: ‘I needed to remake my vital stocks’ (2000: 50). The doctor prescribed iron supplementation, to which he had no objection. However, he chose not to inject it and instead to take it orally (even though, to his great disgust, the product had a nasty taste of rust). Additionally, in a different segment of the book he mentions his intake of vitamins.
However, Bassons bluntly rejects being injected with EPO despite the fact that his vital stocks of red blood cells (hematocrit) had fallen to an unhealthy 36 following a particularly gruelling stage race (Bassons, 2000: 104). In fact, his book is full of negative references to needles, injections and syringes, which, taken together with his apparently inconsistent approach to supplementation, leaves room to suppose that he was somehow more opposed to the means of intervention (the invasive and fast injection) than to the products themselves. Concerning the latter, he seems to be wary of the most recent ones (EPO, testosterone, growth hormone), but not of the more traditional (iron, vitamins), despite the evident artificiality (either produced or extracted) of the latter.

It is also noteworthy that Bassons did not oppose the use of all kinds of artificial performance-enhancing techniques. Following his radical rejection of EPO (‘how could I significantly boost my blood without using EPO?’; Bassons, 2000: 153), he was made aware that he needed to boost his hematocrit in order to stay on an equal footing with his competitors and not be at a disadvantage. After this discovery, Bassons chose to move to a hotel in the Alps equipped with hypobaric chambers – that is, special rooms where high altitude conditions were simulated in order to stimulate red blood cell production:

[The room] was protected by a hermetic door. Inside two machines were installed. One rarefied the oxygen, diminishing its proportion from 20 to 13%, in order to simulate an altitude ranging from 2,800 to 3,600 meters; another absorbed the extra carbonic gas to prevent the air from being polluted. I spent thus confined eighteen nights, from 8pm to 8am, lulled by the purring of the machinery (2000: 157).2

It could hardly be argued that this kind of high-tech facility, with its pumps, gas cylinders and watertight sealing, is not as artificial as, at least, vitamin or iron injections. This is arguably an exogenous input contributing to an artificial development of the physical capacities. Again, the only difference with EPO is that it is less intrusive and slower in its effects. But, although the results for hematocrit are as artificially influenced as those produced by taking EPO, Bassons defends his approach as legitimate.

In another part of his book Bassons describes with apparent delight his first contact with high-tech physiology. Soon after signing his first contract as a professional rider, he is taken by the team’s trainer, Antoine Vayer, to a sports medicine centre in the French town of Laval:

I was submitted there to an impressive battery of tests, clinical and on-the-ground. My physical capacities were weighted, measured, extrapolated, put in equations. ... The computers’ printer endlessly spat cabalistic graphics, mysterious tables and rows with abstruse figures. In the beginning I had the neat feeling of being a guinea pig. But later I began to gain interest in this thorough inspection. I felt it was the

2 ‘Elle était protégée par une porte hermétique. À l’intérieur étaient installées deux mécaniques. L’une raréfiait l’oxygène, ramenant son taux de 20 à 13%, pour simuler une altitude variant entre 2800 et 3600 mètres, l’autre absorbait les excès de gaz carbonique afin d’éviter que l’air ne soit vicié. J’ai passé dix-huit nuits de vingt heures à huit heures du matin, ainsi confiné, berçé par le ronronnement des instruments’.

Institute for Culture and Society Occasional Paper 1.4
scientific application of this inward look I felt empirically in my training roads (2000: 55-56).3

Following this battery of tests, Bassons is provided with a thorough training programme designed to make the best of his physical potentialities. One wonders, again, how this kind of scientific examination, and the ensuing training schedule and its effects on performance, could be labelled as natural without controversy in a paradigm where doping is equated with artificiality.

The arbitrariness of the natural/artificial divide in the anti-doping literature, and the contradictions and inconsistencies it has brought with it, has been highlighted by many scholars and commentators. Barrie Houlihan has argued, for instance, that:

it is not sufficient to argue that the dividing line between what is ethical and what is not can be drawn between natural and unnatural advantages for . . . not all unnatural advantages are considered to be in the same category of doping. It is also the case that the current generation of new drugs contain a number which are natural (or naturally occurring if not naturally achieved) such as blood doping and enhanced levels of testosterone (Houlihan, 2002: 126).

In the final analysis, as many authors have stressed, it is elite sport itself (and sport tout-court, even in its recreational dimension) which is intrinsically cultural, that is, artificial, and therefore essentially technology-based and technology-driven. The sports historian Paul Dimeo has expressed this idea as follows: ‘We have to accept that sport is a technological process – the taking of a physical body and making it into something new in pursuit of athletic achievement’ (Dimeo, 2007: 138). In this framework, ‘drugs are only one more technological enhancement’ (Dimeo, 2007: 136).

**Winston’s model: brakes and accelerators**

Brian Winston’s book was first published in 1998, at the peak of the ‘information society’ discursive wave of the 1990s and the early 2000s. Winston’s stated goal when writing this book was to provide a re-reading of the history of modern information technologies in order to reveal ‘the ‘Information Revolution’ to be largely an illusion, a rhetorical gambit and an expression of technological ignorance’ (1998: 2). In order to achieve this goal, Winston proposes an interpretive model for the rhythms and patterns of permanence and change which ‘suggests the primacy of the social sphere ... conditioning and determining technological developments’ (1998: 2) not just in the field of information technology, one might add, but concerning any kind of technology. The model describes the complex and dialectical relationships between ‘science and general know-how ... prototypes ... [and] ‘inventions’ and the balance of forces pushing and inhibiting the technologies’ (1998: 2).

---

3 ‘Là, je me suis vu infliger une impressionante batterie de tests, cliniques et de terrain. Mes capacités physiques ont été pesées, mesurées, extrapolées, mises en équation ... L’imprimante des ordinateurs a craché à l’infini des courbes cabalistiques, des tableaux abradabrants et des bordées de chiffres abscons. De prime abord, j’ai eu le net sentiment d’être un cobaye. Puis je me suis piqué d’intérêt pour cette inspection méthodique. J’y voyais l’application scientifique de cette introspection que j’expérimentais de manière empirique sur mes chemins d’entraînement’.
The graphic representation of the model includes an X diachronic axis, and a Y synchronic one. At the bottom of the Y axis one finds ‘science’ ‘used very broadly, more in line with its original meaning of ‘acquaintance with or mastery of any department of learning’’ (1998: 3). It refers to the general state of knowledge in a given society at a given moment, which serves as the ground where the ideation process takes place, giving birth to technological performance, ‘the testing of solutions – that is, the building of devices’ (1998: 5). Winston calls these preliminary devices prototypes, the first stage in the diachronic process (the X axis), when the ‘social forces coalesce to function as a transforming agency’, which Winston calls supervening social necessities (1998: 6). He identifies three classes of such necessities, of which the most interesting for the purposes of this paper is the second, which is described as a diffuse and complex ‘concentration of social forces working directly on the process of innovation’.

The operation of these necessities makes prototypes move forward to the invention stage – an invention being basically a prototype which has gained public status and acknowledgement. However, inventions, like prototypes before them, can be rejected ‘because a supervening necessity has not yet operated and no possible use for the device is seen’ (1998: 7). A third possible outcome of the operation of these social forces are parallel prototypes, which:

will occur when the device which will become the parallel prototype is already in existence solving another technological problem. Its potential use for a secondary purpose is realised only after the operation of a supervening necessity... The initial thrust of the technology is directed towards purposes other than those which eventually emerge. The effectiveness of this prototype in solving the problem for which it was originally designed has nothing to do with its effectiveness as a device in the second area. It is, in effect, a species of spin-off (1998: 8).

The last factor to take into account in this model is again the operation of social forces, but this time as brakes rather than accelerators of technological progress – what Winston calls ‘the ‘law’ of the suppression of radical potential’ (1998: 11). This factor refers to the coalition of forces always operating to avoid radical disruptions of the status quo, ‘to slow the rate of diffusion so that the social fabric in general can absorb the new machine and essential formation such as business entities and other institutions can be protected and preserved’ (1998: 11). It is the interplay of these accelerators and brakes which determines the fate of any given technological innovation and, more particularly, its transition (or failed transition) from prototype to invention, and from this stage to diffusion, when the technological device reaches its definitive configuration, so entering the phase of full commercialization and becoming a market commodity.

**Accelerating Bio-Medical Experimentation: Doping as Intrinsic to the Logic of Sport**

Medicines and methods of manipulating the human body created for the purpose of combating all sorts of conditions do not usually adopt the form of a physical device operating on a mechanical and/or electronic basis. In some cases there may be need of such contrivances, as illustrated in the case of the popular Ventolin bronco-dilator, or more simply in syringes and needles, or drips. Nonetheless, it is clear that remedies can be thought of as technology, and more precisely, as bio-technology using bio-chemical
research and innovation. In other cases it would be more appropriate to talk about new techniques of human improvement and curing, rather than of technologies as products or devices, as would be the case of hemodialysis or aesthetic surgery. In any case, it is therefore easy to apply Winston’s model to the development of new remedies and/or techniques in the field of human health, but also to the discovery of new uses for old medicaments or techniques.

The fact that pharmaceutical innovation is a high-tech activity involving ultra-skilled people working in complex teams and often spending enormous amounts of money does not substantially change the situation. There is always an ideation process, where a researcher or team of researchers identify a potential or actual social necessity not catered for by the existing bio-medical technology, and develop a prototype on the basis of existing scientific competence. This prototype is thereafter refined, tested on animals and/or on persons, submitted to official supervision and authorisation, and eventually put into the marketplace, where its fortune will depend on the real dimension of the social necessity it is meant to cater for. However, as illustrated in Winston’s model, a new bio-medical technology/technique can evolve towards new and unexpected applications, which in some cases may result in a much-enhanced consumption (and higher revenues) than initially expected. This is what Winston calls spin-offs, which he exemplifies with videogames, which are ‘an accepted extension of microchip technology which was certainly not developed with that specific purpose in mind’, and the audio CD, which could be seen as a spin-off of the CD-ROM (1998: 15). The category ‘spin-off’ can be seen as interchangeable with the ‘parallel prototype’, as sometimes alternative and unforeseen uses of particular technologies develop in parallel to its mainstream usage.

This is clearly the case for doping substances and methods. Most of them, if not all, were not initially conceived and developed for the purpose of performance-enhancement in healthy persons, although it could be argued that they were actually created for performance-enhancement in unhealthy subjects, whatever unhealthy may signify in any given society and historical moment. It is indeed the case that illness could be considered a natural situation – as is the view in some alternative approaches to medicine like homeopathy – and that allopathic cure through external agents could be seen as an intervention aimed at artificially improving the performance of the naturally ill body.

Whatever the case, the use of medical remedies and methods for performance-enhancing purposes was not arguably the primary aim of the inventors of recombinant erythropoietin (rEPO or EPO), synthetic human growth hormone (hGH), anabolic steroids, beta-blockers, ephedrine and vitamin pills. Neither cocaine nor caffeine, to mention drugs which are not now considered a medicine, were synthesized in the nineteenth century for performance enhancement or recreational purposes, but for medical applications as, respectively, an anaesthetic and a stimulant. But it is equally clear that the unforeseen functions of these pharmaceutical compounds as doping agents were swiftly discovered. Or to put it in Winston’s words, a second supervening social necessity – in addition to the one posed by the demand for better health conditions – appeared in association with elite sport: the one derived from its ‘higher, faster, stronger’ sacred and inescapable commandment (Møller, 2010). The new uses of these innovations could be regarded as parallel prototypes, or, more precisely, as spin-offs of the original formulae, usually without any major chemical modification.
The idea that doping could not just be the ‘deed of the devil’, the result of individual weakness or evil, or at most the outcome of commercial pressures linked to the increased commodification and professionalisation of sport, is at odds with the mainstream anti-doping discourse. The concept of a ‘supervening social necessity’ behind the expansion of substance intake for performance-enhancement purposes may sound heretical to those ideologically and/or professionally committed to the anti-doping campaign. However, this stance can be strongly advocated.

The notion of modern sport as a supervening social necessity can be supported by two interrelated points. On the one hand, there is the true and deep nature of sport itself, which draws hundreds of thousands to practise it, and tens of thousands to make it a primary interest for a period of their lives. We could consider this a social necessity derived from the inner features of sport. On the other, there is the equally fascinating force of sport as a spectacle – its well documented massive appeal – which could be considered external to sport itself, or to relate more specifically to the sport-society nexus.

The fact that sport is not about moderation but excess and exaggeration has been pointed out by several commentators. The Danish sports scholar Verner Møller contends that the ultimate aim of elite sport is performance, ‘an aspiration upwards’, ‘a clear sense of purpose’, the will ‘to excel to the utmost’ (Møller, 2010: 15), and, ultimately, ‘the will to win’ (2010: 17), because ‘sport has victory as its pivot point and its absolute value. Sport is a cultivation of the will to win taken to the threshold of evil’ (2010: 24). He therefore rejects the common assumption that the spirit of sport is about fair play. This ‘has no foothold in reality’ and actually ‘describes what idealists might wish it to be’. What is commonly called ‘sporting behaviour’ (self-restraint, moderation, respect for the opponent and so on) is an external imposition to sport, ‘the consequence of an external disciplining’ (2010: 20). Paul Dimeo expresses the same idea:

sport is fundamentally about winning, hierarchy, elitism and losers get nothing. It encourages people to think of others as enemies. Bias and partisanship are actively promoted. It demarcates the best from the rest, it is all about physical and social superiority. It is a harsh system that is not just intolerant towards failure but explicitly rejects those who fail (Dimeo, 2007:134).

In other words, ‘[s]port is not about a level playing field – it is about the exact opposite, trying to make the playing field uneven’ (Dimeo, 2007: 136). Under these premises, Dimeo aligns with Møller in the consideration that ‘doping is an outcome of the logic of sport’ (Dimeo, 2007: 137). In a similar vein, the British scholar Barrie Houlihan has convincingly argued, remarkably from an anti-doping stance, that ‘sport is all about seeking an advantage over other competitors’ (Houlihan, 2002: 125-126). From his fundamentalist anti-doping stance, Christophe Bassons himself openly acknowledged this basic point: ‘the simple will of surpassing the others, even naturally, is a form of doping. The very idea of competition seems pathetic to me’ (2000: 250). It could therefore be argued that the aggregation of thousands of wholehearted individual commitments to performance, excellence and victory generates a very powerful social

---

4 ‘Le simple fait de vouloir dépasser l’autre, même naturellement est une forme de dopage. L’idée même de compétition me paraît minable’.
necessity to put technological innovation at the service of these goals. In other words, the (true) essence or spirit of sport accounts for the eternal technological race of arms (including doping) taking place in various degrees and in any and every sport.

The other dimension of the supervening social necessity generated by the universalisation of modern sport is a more genuinely social one, in the sense that it stems from the well documented and researched social phenomenon of sports spectatorship and fandom – a phenomenon which is on the increase. As Dimeo puts it, ‘modern societies seem to want more sport, not less’ (Dimeo, 2007: 138). Although not related to sports practice but to sports passive consumption, the driving force which draws the attention of millions is the same as for the (high-level) practitioners themselves: the merciless quest for performance, excellence and results of elite sportsmen and women. This massive appeal, which became apparent from the very beginnings of modern sport, is the cause of the unstoppable commodification and professionalisation process of elite sport, the increasing interest it stimulates among politicians and governments, and its equally inexorable technification, including experimentation with performance-enhancing substances, contrary to what the dominant anti-doping discourse contends: that the commodification/professionalisation process of elite sports or its kidnapping by ambitious political leaders and/or nations are the cause of its doping technification.

Suppressing the Radical Potential of Doping

It ought to be clear at this stage which kinds of social forces are to be found behind experimentation with performance-enhancing substances and techniques. Despite the apparent success of the anti-doping campaign, these forces will continue to operate as long as sport, in its modern sense, exists. But this success, although debatable in its extent, points to other existing powerful social forces pushing in the opposite direction: towards the suppression of the radical potential of doping. These forces have recently coalesced around the World Anti-Doping Agency (WADA), which acts as the embodiment at the global level of the traditionalist or pre-modern (Møller, 2004) attitude towards performance-enhancement in sport.

Paul Dimeo has identified these conservative forces with a European elite, ‘especially ... middle- and upper-class individuals who had previously been athletes’, who then ‘went on to prestigious careers in medicine or sports administration. They wanted to fashion sport in their image: the established amateur traditional culture’ (Dimeo, 2007: 128). According to the same author, ‘anti-doping was about social power and was based on a very specific Eurocentric, pseudo-religious morality linked with a romantic idealism about the function of sport in society’ (Dimeo, 2007: 6). This portrait corresponds to the earlier stages of anti-doping in the 1960s and 1970s and is possibly still valid today.

Journalists, whose most active anti-doping campaigners are often former elite athletes themselves, often oppose the technological innovation process in performance-enhancement. Another category consists of the political elites of some specific

---

8 See, for instance, the enthusiastic descriptions of the huge crowds summoned by the first edition of the Tour de France in 1903 by its promoters, the journalists of the Paris newspaper L’Auto, quoted in Thomson (2006) and Dauncey and Hare (2003).
countries, usually second-rank world powers, which have strongly relied on anti-doping as a way to increase their chances of sporting success at an international level (or even national, as in the case of the lack of French successes in the Tour de France since 1985). On a more general and diffuse level, one could point at pervasive social anxieties on drug use for recreational purposes since the 50s, linked to deep puritanical values more or less present in all societies, but arguably more powerful in countries with a strong Protestant cultural-religious background.

The medical profession could hardly be considered to be part of the social forces pushing towards experimentation with performance-enhancement substances, despite the anti-doping campaign having assigned a fair amount of responsibility to the profession. Proof of this is the scarcity of (published) scientific research having been conducted about the effects – mainly adverse but also performance-enhancing – of substance use for doping purposes by healthy adults in the later stages of bio-medical innovation concerning hormonal treatments.\(^6\) Despite the prominent role assigned to some star doctors such as Francesco Conconi, Michele Ferrari and Eufemiano Fuentes by the anti-doping campaign, it can be strongly argued that the medical profession has not been the ultimate driving force behind experimentation with performance-enhancing substances and methods in the last 30 years. This role is to be solely attributed to athletes themselves. Medical doctors and other specialists in bodily functions and performance (physiologists, dieters, physiotherapists...) have been attracted to elite sports only as accompanying or instrumental actors, in response to the growing demand for expert service, advice and guidance by top-level athletes in search of the winning edge. This is not to say that their role has been a minor one, but that they did not create the necessity and the momentum for doping use.

But when dealing with anti-doping, it seems clear that the medical profession itself (or at least a prominent and very active part of it) has been one of its driving forces, if not the most powerful one. In other words, the medical profession is to be found among the social forces slowing experimentation in performance-enhancing drug use. It is indeed the case, as Dimeo (2007: 103) has pointed out, that ‘the impetus [for anti-doping] came from medical authorities looking on from outside sport’. A group of physicians – often former elite athletes – involved in elite sport as medical advisors, were the ones who spearheaded the cultural revolution which turned doping from a more or less accepted (and, for some, even desirable) practice into an intolerable violation of the spirit of sport in the 1960s.

Among the most active and influential of these are: the Austrian Ludwig Prokop, the French Pierre Dumas (the official doctor of the Tour de France for many years), the Belgian Albert Dirix and the British Arnold Beckett and John G. P. Williams. Paul Dimeo (2007: 95) has bluntly labelled these and other scientists of the sixties and the seventies as ‘proselytisers as well as fanatics’, as they did not limit themselves to

\(^6\) This is one of the main conclusions of my thorough review of the scientific literature on the effects of EPO in healthy adults (López, forthcoming). Concerning the scarcity of original research on the effects of human growth hormone in healthy adults, see Liu et al. (2008).

\(^7\) Dimeo (2007) has described the open involvement of the American and German scientific communities in research on performance-enhancement and drugs (mainly amphetamines) in the thirties and the forties of the twentieth century, but this involvement could be considered a result or a reaction to the increasing demand generated by elite sport (as well as warfare!). This open involvement could not be found anymore in the late decades of that century.
dealing with the doping issue from a health perspective, but embarked on a moral crusade to save the purity of sport.

Prokop himself once wrote that ‘doping must be regarded primarily as a sporting and not a medical problem. Doping is unfair in any case, but not necessarily injurious to health’ (Prokop, 1966: 268, quoted in Dimeo, 2007: 94). Their ‘social, cultural and ethical perspectives ... were a subtle and implicit – but enormously powerful – force in setting the framework for anti-doping’ (Dimeo, 2007: 104). They eventually succeeded in imposing worldwide their ‘fundamentalist view of ethics and a pseudo-imperialist strategy of moral diffusion’ (Dimeo, 2007: 104) through extensive propaganda which achieved its goals because it connected with much broader social anxieties about technological processes of change in the bio-medical field.

Another category acting as a brake on the innovation process embodied by experimentation with doping substances are the sports governing systems. They have been the object of much controversy, particularly regarding the extent to which they have been leading the fight against doping. The leaderships of IOC, IAAF, FINA and UCI, to name only a few of the most important international sports governing bodies, have quite often been accused of adopting a lukewarm and ambiguous stance towards doping (see, for instance, Bassons, 2000; Roussel, 2001; Kimmage, 2007).

The most famous example of this supposed lack of wholeheartedness concerning anti-doping is the controversy generated by the words of then-President of the IOC, Juan Antonio Samaranch, who in late July 1998 (at the height of the Festina scandal in the Tour de France) publicly pleaded for an overhaul of the list of prohibited substances on the grounds that those which could not be proven to be dangerous for athletes’ health should be removed from the list (The Washington Post, 1998). The anti-doping campaign considered this stance ‘a public capitulation to the drug cheats’ (Parisotto, 2004: 40). In a similar vein it has also been argued that Avery Brundage, the President of the IOC between 1952 and 1972, ‘was never as concerned about doping as he was about professionalism ... drugs never seemed [to Brundage] quite the image of evil that Mammon did’ (Guttmann, 1984: 123, quoted in Dimeo, 2007: 100).

But, whatever the diligence with which the sports governing system has tackled doping, it is undeniable that it has acted as a major barrier to the development and spread of doping practices. In fact, most of the major advancements in prohibition, testing and punishment have been adopted by these institutions, under the leadership of the IOC, until the setting up of WADA in 1999. Those in charge of sports governance belonged to the same social strata as the doctors launching the anti-doping campaign: they were middle- to upper-class white males from the traditional Western powers, and they might equally have felt concerned about the disruptive and subversive potential of sport as it developed after the second World War: ‘too nationalistic, professional and serious for the tastes of those brought up in pre-war amateurism’ (Dimeo, 2007: 134). According to Dimeo, the growing problem posed by the essence of sport to the conservative and patriarchal values of these elites was diverted to a moral panic over doping, which acted as a ‘smokescreen’ (2007: 134).

A part of the athletic community itself can be isolated as another small but very active focus of resistance to performance-enhancing experimentation with drugs. It has already been pointed out that many former athletes went on to pursue a career in sports...
medicine or administration, from where they deployed their anti-doping campaigning. But it is also the case, mainly in the 1990s and the 2000s, that some athletes came forward while still developing their careers, or shortly after terminating them, and actively joined the campaign. Some prominent examples are the French cyclists Christophe Bassons (extensively quoted in the beginning of this article), Philippe Gaumont, Erwan Menthéour and Jérôme Chiotti, all of whom published books narrating their critical views on doping (Menthéour, 1999; Chiotti, 2001; Gaumont, 2005). The case of the Scottish cyclist David Millar is a similar one, except that his confession and repentance have not yet taken the form of a book, but of lengthy statements published in The Guardian in 2004. This prominent role of repentant sinner and outspoken doping critic gained him a seat on the WADA athletes’ committee in 2008 (Møller, 2009).

In the absence of specific research on the issue, it is risky to speculate about the motives for these exceptional attitudes, so defiant are they towards the dominant values of professional cycling, beyond the reasons put forward by the rebellious themselves. If Millar’s case seems to point at sheer opportunism, Bassons’ attitude might stem, according to his own statements, from a mixture of popular puritanism and ‘exaggerated pride’ (Bassons, 2000: 9). The puritan ingredient is evident in his book, with sentences like this one: ‘Undoubtedly, I should have started my words like this: ‘I, Christophe Bassons, healthy in body and spirit...’’ (2000: 25). Excessive self-esteem and an arrogant contempt for sinners are present in his statements: ‘I was sure I would succeed without subterfuges. My value would be enough to bring me to the summits’ (Bassons, 2000: 8) and ‘my difference was my honour’ (Bassons, 2000: 212).

This arguable martyr vocation is to be found in the self-account of another former rider’s encounter with cycling’s doping culture, the book by Paul Kimmage, Rough Ride (Kimmage, 2007). But the Irishman wrote it when he had already left professional cycling and entered journalism, and therefore could be considered a member of that other social group representing ‘the law of suppression of the potential radical’ of doping: the media. As with the case of the role played by sports officials and organisations, the media has been equally accused of connivance with the doping culture, while at the same time being blamed by athletes and sports administrators alike for constructing or compounding the problem through their sensationalist appetite for scandal and disgrace. Paul Kimmage is amongst those chastising a number of sports journalists for being accomplices of the cheats:

> if the sport is ever to be truly saved [from doping] there’s another list [in addition to the one of the dopers themselves] that should be compiled: a list of the spineless, lazy, morally bankrupt wasters masquerading as journalists here ... I’m gazing around the press room now and thinking about some of the great journalists who used to work in these seats. There are still a few here but it’s mostly fans with typewriters now (Kimmage, 2007: 280).

But Paul Kimmage, David Walsh, Pierre Ballester, Niels Christian Jung, Olav Skaaning Andersen and some others are themselves uncompromising anti-doping campaigners

---

8 ‘Sans doute aurais-je dû commencer ainsi mon propos: ‘moi, Christophe Bassons, sain de corps et d’esprit...’’
9 ‘J’étais certain de réussir sans subterfuge. Ma valeur suffirait à me transporter vers les sommets’.
10 ‘Ma différence était mon honneur’.
within the ranks of the media, and some outlets like L’Équipe, Le Monde, The Times, El País, Marca and the Danish public television station DR have adopted in recent years a strong anti-doping stance and thus actively contributed to the anti-doping campaign’s accomplishment of its goals. It seems, therefore, that it is not possible to talk about monolithic behaviour of the media concerning the doping issue, but rather a certain degree of schizophrenia or ambivalence.

What is undeniable, though, is that a part of the media system has actively and deliberately put itself to the service of the anti-doping campaign, with some journalists going far beyond their remit as balanced, informed and unbiased reporters, and becoming instead heated propagandists of the anti-doping ideology. On the other hand, the very nature of modern newsmaking and news values, with its intrinsic focus on exception, negativity, risk and crisis (Altheide, 2002), has played its role in putting the doping issue in a prominent position and with a strongly anti-doping focus in the news agenda during the last 15 years. When assessing the role played by the media in suppressing doping’s radical potential, one should not fall into the temptation of adopting the conspiratorial point of view that the media have manipulated public opinion and constructed/imposed from scratch a moral panic over drugs in sports. For without an audience ready to lend an ear to these stories of deviance, corruption, decay and rottenness, the message and its consequences would not have reached its present proportions. Several scholars (for instance, Waddington, 2000; Kayser and Smith, 2008; Tamburrini, 2007) have pointed out the links between the doping moral panic and the broader one about the pervasiveness of recreational drugs in society. As Dimeo (2007: 134) puts it, ‘the moral panic over drugs in society was sharpened in the late 1950s and into the 1960s, providing a parallel context for the development of anti-doping in sport’.

An equally complex task would be to analyse the role played by national governments and politicians in the anti-doping campaign. Here one can find substantial differences between countries. Some pioneered the criminalisation of doping outside the strict framework of sport governance: France, for example, passed an early anti-doping bill in 1965, and ‘busted’ the 1998 Tour de France with a massive criminal enquiry under the command of the Ministry for Youth and Sports. Others, like Canada or Spain, followed suit some years later: in Canada there was the Dubin Enquiry and its legal aftermath in the late eighties, and there was the criminal investigation launched by the Spanish government in 2006 known as Operación Puerto. And yet other countries such as Germany and the United Kingdom, despite being strongholds of the anti-doping culture, have so far resisted the politicisation and criminalisation of doping.

What is clear, though, is that politicians from all around the globe and of every ideological colour are quick to gather around any proposed anti-doping legislative actions. This remarkable unanimity has been signalled by commentators dealing with the Spanish (Tornos, 2008), French (De Lignières and Saint-Martin, 1999) and Danish (Møller, 1999 [2008]) cases. Commenting on the Spanish law 7/2006, of 21 November, ‘on the protection of health and the fight against doping in sport’, the lawyer Agustín Tornos points out that:

The lack of critical voices in the [Spanish] parliament concerning the Criminal Law entering the arena [in the treatment of doping] can only be understood on the basis of electoral strategy reasons, because, as it is obvious, the rejection of any measure
aimed in abstract at preserving fair play in sport and at protecting public health is not really good in terms of political marketing (Tornos, 2008).  

It was precisely the pressure by national governments which eventually led to the creation of the World Anti-Doping Agency in 1999 – the Agency is funded on a 50-50 basis by national governments and the IOC (Houlihan, 2002). These different rhythms and intensities in the commitment to suppressing the radical potential of doping by politicians and governments from different countries can be attributed to a wide array of causes. It could be argued, for instance, that the leading role played by Canada and Australia12 in the recent global developments of anti-doping stems from their position as second-rank sporting powers playing in the shadow of the big medal-winning countries (the USA, the USSR-Russian Federation, the old and new Germanies, and, more recently, China). It can, then, be understood as a strategy to reduce the performance gap between sporting powers, instead of fully embracing the technological race of arms, as seems to have been the case in China.

The very active role played by the successive French governments in anti-doping since the mid-sixties may have to do with the fact that, in France, sport is a state affair (De Ligniéres and Saint-Marin, 1999), and that the country hosts (and must therefore protect) one of the world’s biggest and most lucrative annual sports events, the Tour de France. On the other hand, French governmental reaction to doping from 1998 onwards may have echoed wider national anxieties concerning its loss of status in elite cycling – a central aspect of French national pride and identity – coupled with the rise of former second-rank (or entirely new) powers in the sport, like Spain, Denmark, Germany, Ireland, Australia and the USA. Traces of these anxieties can be found in the anti-doping literature, in the form of references to Italy and Spain having become a kind of doping sanctuary or hell,13 causing French riders to fall after 1998 into the lower tier of the ‘cyclisme à deux vitesses’ which, according to some French riders and journalists, has characterized the sport in the last 20 years (see, for instance, Bassons, 2000; Ballester and Walsh, 2006).14

Whatever the cause, it seems clear that politics and politicians’ relationship to the doping issue is quite similar to that of the media: their initiatives may equally be considered a cause and a consequence of social anxieties and demands concerning human enhancement. Analysing the psycho-social roots of the moral panic surrounding doping is beyond the scope of this paper, but it seems clear that they concern the impact of the increasing variety, availability and powerful effects of recreational drugs from the Second World War onwards, on the puritan and traditionalist values and attitudes rooted in most Western societies, especially those with a Protestant cultural-religious

---

11 ‘La ausencia de voces críticas en el arco parlamentario, por lo que se refiere a la entrada en escena del Derecho Penal, solo puede entenderse en base a razones de estrategia electoral, puesto que, como es obvio, el rechazo de cualquier medida destinada en abstracto a preservar el juego limpio en el deporte y a proteger la salud pública es decididamente poco comercial en términos políticos’.

12 The two Presidents of WADA, so far, have been a Canadian (Dick Pound) and an Australian (John Fahey).

13 An article in the Nouvel Observateur magazine published in 1998 referred to some Italian doctors as ‘sorcerers’ (De Praconta, 1998), due to their reputation as cutting-edge doping experts.

14 It is noteworthy, in this context, that the 2010 Tour de France recorded the worst ever performance of a French rider in the history of the race (John Gadret, 19th of the final general classification), and was also widely acknowledged as one of the ‘cleanest’, to use an anti-doping expression, in recent decades.
background. Several commentators (including Møller, 1999 [2008], 2010, and Dimeo, 2007) have pointed at the pseudo-Christian background permeating a great deal of the anti-doping language and attitudes, with its references to crusades, heretics, sinners, repentants, cleanliness and purification.

Despite its obviousness, one should also consider the anti-doping governance structure itself as one of the major social forces/institutions suppressing the radical potential of bio-medical performance-enhancement. Once set in motion and having become the only socially and politically legitimate source of meaning concerning doping, anti-doping itself has become an extraordinary social force against technological experimentation in the field of chemical performance-enhancement. The anti-doping superstructure is the prototype of the organ which creates the function, or in Dimeo’s words, anti-doping is ‘self-defining and self-justifying’ (2007: 120):

Anti-doping became a profession in itself with a range of benefits from all-expenses-paid first class travel courtesy of the IOC, to enhanced public profiles for the experts, to attendance at all major sports events. The British attitude seemed to reflect all that was good about amateurism, but in fact offered career opportunism and the extension of social power based on claims of moral superiority (Dimeo, 2007: 124).

Mazanov and Connor (2010: 52) have expressed a similar idea when stating that ‘one aim of the anti-doping industry is ‘to protect the integrity of anti-doping agencies’ rather than the integrity of sport’.

Conclusion

This paper has tried to contribute to other academic efforts to see the doping issue from an angle different to the dominant discourse offered by the anti-doping governance structure, governments and politicians, and the media: namely as (bio-medical) technology applied to the improvement of performance in sport. As such, doping itself should, therefore, not be submitted to a moral judgment, because technology is always morally neutral, and what can instead be labelled as right or wrong, good or bad, is how people use this technology. Departing from this basic point, a re-reading of the history of performance-enhancing substance use in sport is proposed, based on the application of the interpretative model of technological change offered by the media scholar Brian Winston. According to this dialectical model, the evolution of any technological novelty must be understood in its wider developmental social framework, and in particular as the result of the interplay of social accelerators and brakes. Accelerators are the social necessities or demands that the technology in question helps to solve, while all those social forces whose status or position may be challenged by the novelty act as brakes, or in Winston’s words, operate the ‘law of suppression of the radical potential’ of any given technological change.

It has been argued that the main (and probably only) social force pushing forward the innovation and experimentation processes in elite sport, including those involving bio-medicine, derive from the very nature of sport itself: its inexorable tendency towards hierarchy, performance and victory. Analysis of suppression of the radical potential of unrestricted doping is more complex, as it involves a part of the medical and journalistic professions, the sports governance structure, and some national governments, although
the attitudes of the media, politicians and sports officials have been far from consistent over the years.

The current state of performance-enhancement in sport, the demarcation between what is legal/acceptable and illegal/unacceptable, has, therefore, little to do with the official discourse of anti-doping along the lines of some well-known axis, like healthy/unhealthy, natural/artificial or endogenous/exogenous. It is the result, in this particular historical moment, of the balance of forces in the tension between social brakes and accelerators, which accounts for all of the apparent inconsistencies and whims of the current list of prohibited substances and methods: for instance, the inclusion of marijuana, EPO and growth hormone but not tobacco, hypobaric chambers and creatine. This inconsistency explains why the proverbial cat-and-mouse game in which dopers and anti-dopers have been engaged since its origins is doomed to continue as long as sport exists in its modern guise.

This paper is, therefore, a further attempt at rationally explaining the evident irrationalities of the current anti-doping policies and institutions, and an invitation for policy makers and promoters to become more aware of the origins and the causes of these irrationalities. For only by gaining consciousness of these causes can their consequences eventually be overcome, for the sake of a more balanced, sustainable, human and efficient anti-doping activity actually focusing on what should be its only concern: the health of the sportspersons, not the purity of sport.
References


