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Morgan's conventionalism versus WADA's use of the Prohibited List: The case of thyroxine.

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Abstract

Morgan has argued that attitudes to the medicalisation of sports are historically conditioned. While the history of doping offers contested versions of when the sports world turned against conservative forces, Morgan has argued that these attitudes are out of step with prevailing norms and that the World Anti Doping Agency's policy needs to be modified to better reflect this. As an advocate of critical democracies in sports, he argues that anti-doping policy must acknowledge and reflect these shifts in order to secure their legitimacy. In response, we critically present the World Anti-Doping Agency's policy that incorporates the Prohibited List of Substances and Methods for athletes. We evaluate the validity of the therapy-enhancement distinction in relation to its role in both justifying and sustaining the operation of the Prohibited List. In particular, we focus on the case of thyroxine, which has been the subject of controversy in athletic doping. While thyroxine is not currently banned, critics have claimed that its use in the absence of a relevant pathology is tantamount to doping. We challenge Morgan's claim that a conventionalist defence of the therapy-enhancement distinction is the best available, and his conclusion that this properly supports a more permissive stance towards performance-enhancing drug use. Furthermore, we reject his conventionalist support for democratic line drawing in relation to doping and in particular the status of thyroxine with regard to the prohibited list. We offer a modified defence of the status quo, a qualified, naturalist account of health and disease, where athletes may be prescribed drugs that are genuine responses to medical necessity that do not, or do not typically, threaten the goods of athletic excellence.

Introduction

Among his extensive and critical oeuvre in the philosophy of sport, Morgan (2009) has argued that our attitudes and values in relation to the medicalisation of sports is a historically conditioned affair. Hoberman (2001; 2007) and others have drawn attention to what has often been an unholy alliance of forces where athletes have been either pawns in a political game or willing pharmacological adventurers in seeking athletic and related commercial goals. The history of doping offers contested versions of when the world turned against conservative forces (Dimeo, 2008; Houlihan, 2002; Møller, 2009) but Morgan has argued that these attitudes are now, so out of step with prevailing social norms regarding enhancement that the

¹ Mike McNamee is a member of the World Anti-Doping Agency's Ethics Committee.

rules regarding them need to be modified. As a powerful voice in support of critical democracies in sports, he argues that anti-doping policy must reflect such shifts to retain their legitimacy. In this essay we critically present the World Anti-Doping Agency's (WADA) policy that incorporates the Prohibited List of Substances and Methods for athletes and discuss whether the therapy-enhancement distinction can justify and sustain its operation. We do so against Morgan's claims that a conventionalist defence of the distinction, the best available, supports a more permissive stance towards performance enhancing drug use. We challenge his conventionalist support for democratic line drawing in relation to doping. In contrast we present a modified defence of the status quo, which we take to be a naturalist account of health and disease, where athletes may be prescribed performance enhancing substances that are genuine responses to medical necessity that do not, or do not typically, threaten the goods of athletic excellence and thus the integrity of sporting competition.

WADA, Morgan, and the therapy-enhancement distinction.

In 1999 the World Anti-Doping Agency (WADA) was established as part of a drive to harmonise anti-doping policy (WADA, 2018a), funded by both international sports federations and governments. Its policy tool is the World Anti-Doping Code, the most recent version of which was published in 2015 (WADA, 2015). Within the code WADA refer to its Prohibited List (PL), published as a separate document (WADA, 2018b) and updated annually. The PL designates those substances and methods that are banned either in competition, out of competition, or both. A number of substances or methods have provoked controversy, either because of their inclusion or exclusion from the PL. For example, the use of platelet rich plasma therapy as a technique to enhance recovery was previously prohibited but is now permitted (WADA, 2011). Caffeine, currently being monitored by WADA for potential patterns of abuse, is not on the PL, yet there is evidence to suggest that it has enhancing effects, and that certain levels of use might be detrimental to health (Momaya *et al.*, 2015).

The WADA Code (2015) offers a rationale for candidates that may be placed on the PL of substances and methods. At least two of the following three criteria must be met: (1) The substance or method under consideration must enhance performance or have the potential to do so; (2) it must be harmful for health, or have the potential to be so; and (3) it must be detrimental to the Spirit of Sport. These criteria and the PL can be considered the principle anti-doping policy tool, modifying the ways in which athletes train and perform for and in athletic competition. An anti-doping rule violation cannot be contested on the grounds of WADA's interpretation of such criteria, for example claiming that the use of a particular substance or method is not contrary to the spirit of sport, or that it does not enhance performance. Considerable debate has been had as to whether the spirit of sport criterion ought to be utilised in this policy (Kornbeck, 2013; Loland and Hoppeler, 2012; McNamee, 2012; McNamee, 2014).

Morgan (2009) discusses the PL and the moral permissibility of certain methods of performance enhancement. In a paper concerned with the distinction between treatment and enhancement and the nature of the athletic ideal Morgan makes several related, though not

wholly converging, claims, that are the subject of our critical concern. His view has some resonance with (though we do not claim it is indebted to) the view that ageing is a disease to be combatted by medicine.(Bulterijs *et al.*, , 2015). In his writing the more contentious language of enhancement is elided with the less contentious one of health-maintenance.

We are sympathetic to Morgan's goal: to mark a distinction that grants normative leverage to prohibit/permit some substances and methods while not allowing a pharmacological free for all. He argues, in two ways, that this his position is a fusion of medical and sporting criteria: First, he says that we should permit certain banned substances at prescribed levels. Morgan advocates removing amphetamines and anabolic steroids from the PL, while simultaneously retaining the presence of Beta Blockers on the PL. Morgan's reasons for this challenging shift in anti-doping policy are as follows. The public view on matters of enhancement, athletic excellence and treatment differ to that reflected in anti-doping policy. Close attention to this "historically informed and publicly backed" (2009:166) understanding of athletic excellence would inform a view of steroids and amphetamines as treatments, that, "in the amounts presently ingested belong in the treatment rather than the enhancement category" (2009: 165-6). This conventionalist approach to the treatment enhancement distinction claims, that we can neither define nor operationalise such concepts independent of an historically situated public view. He specifically rejects notions of treatment grounded in ahistorical conceptions of both health and normality (Morgan, 2009). Secondly, and relatedly, he argues that some substances or methods are contrary to the precise nature of the contest itself. Thus, Beta Blockers may help diminish psychological factors that impede performance (such as anxiety and choking) that elite athletes ought to master in order to achieve excellent sporting performance, and thus are a corruption of athletic excellence within the activity. We disagree with Morgan's more permissive stance with regard to WADA's PL. We accept the difficulties in founding the treatment enhancement distinction on contested conceptions of health and normality. We advocate, however, for the pragmatic use of a naturalist conception of health to inform the PL. This pragmatic approach, we argue, better supports a defensible notion of the spirit of sport, that is attentive to means by which excellent performance is attained. We argue that Morgan's own view of sporting excellence is overly focused on outcome, neglecting the means to this excellence that we consider so important.

In order to challenge Morgan's views we explore the contested issue of thyroxine and its absence on WADA's PL. We first explore whether a clear distinction might be made between use of thyroxine and related drugs for therapeutic purposes and its (non-legitimate use) for enhancement or non-treatment purposes, that could be incorporated in anti-doping policy. Secondly, we consider whether its justification ought to rest on nothing more than a convention as Morgan suggests. This at least offers a starting point from which to consider whether to prohibit the substance thyroxine as an attempt to restrict use solely to legitimated therapeutic processes (ie subsequent to the granting of a therapeutic use exemption by a suitably qualified medical authority). Or whether the difficulty to define exactly what is meant by a legitimate therapeutic use means that thyroxine's omission from the PL is justified. The controversial case of thyroxine and its status with respect to the PL offers an opportunity to critically

explore Morgan's approach to distinguishing between treatment and enhancement in anti-doping policy.

Thyroxine use and misuse in sports

The use of the hormone replacement drug thyroxine in a sporting context has been the topic of recent debate. UK multiple medal winning middle distance athlete Jo Pavey objected to its 'unethical use' in mid-2015. (The Guardian, 2015). Pavey's argument appeared to be limited to the use of thyroxine as a perceived performance enhancer, rather than its therapeutic use. Recent interviews with medical professionals in the United Kingdom suggested that athletes using such a substance thought it left them a bit 'zippier' (McNamee *et al.*, 2017). Thyroxine itself is used in a medical capacity as a treatment for deficient operation of thyroid glands.

Thyroxine appears to be a drug that is misused with some frequency in the bodybuilding community. A cursory survey of bodybuilding websites and forums suggests that the drug is being used for weight loss (Subsinsky, 2017). The use of the drug for such purposes was one of many charges levelled at the renowned American track coach, and former world class athlete, Alberto Salazar in a UK Panorama documentary exploring doping in elite running. Yet the use of thyroxine is not something that breaches WADA's rules, though its use for non-medical purposes raises a number of ethical questions. Critically, however, establishing precisely what constitutes non-medical purposes is a notoriously difficult task.

There is reported disagreement on the status of thyroxine between anti-doping organisations, with UK-Anti-Doping and The US Anti-Doping agency having reportedly supported the inclusion of thyroxine on WADA's list of prohibited substances and methods (Butler, 2016). WADA has to date resisted this addition appearing unconvinced of its enhancing properties (*ibid*). Thus an interesting problem remains. Anti-Doping agencies appear to disagree over whether a substance meets the criteria for being placed upon the PL. Currently thyroxine is not prohibited, yet some evidence from expert sports medicine interviews and surveys with elite UK sports physicians (McNamee *et al.*, 2017) suggests that it is perceived as a problematic means of performance enhancement.

The problem does not just concern the effects of the medication scientifically understood, and the potentially enhancing nature of the drug. One suggestion is that sports physicians might interpret thyroid function tests so that *merely* fatigued athletes can be prescribed thyroxine. Drawing a line between the fatigue naturally caused by serious athletic training and some more sustained pathological condition is challenging to say the least. Moreover, the controversy over the prescription of thyroxine here concerns when it is justified to use medical means to respond to what might simply be a *perceived* problem. And when it might not be. Is seeking medical means in this case a legitimate therapeutic measure? Whether and how we might justify a distinction between treatment and enhancement, or indeed treatment and non-treatment is the topic of Morgan's (2009) paper and goes to the heart of the issue of whether thyroxine ought to be prohibited. What if any decision procedure is enabled by the conventionalist stance? Responses to these questions require consideration of the nature of disease and illness which seems to underpin ideas of medical conceptions of normal health.

Thyroxine and therapy

It is of course feasible that an athlete might be prescribed thyroxine for therapeutic purposes for a thyroid deficiency. Therapy here might be understood as a restoration or compensation for loss of function. On this understanding for an intervention to be considered as therapeutic it must respond to a pathology of some kind. An approach informed by Christopher Boorse's celebrated theory of health might claim that a disease, or indeed a sporting injury marks a deviation from species typical functioning (Boorse, 1975; 1977). His account offers an apparently simple decision procedure to draw a line for the distinction. According to Boorse, such deviations can be determined bio-statistically, and therefore do not rely on the report of individuals, intertwined as they may be with subjective perceptions of lowered function.

Suppose that a sports physician monitors an athlete via a thyroid function test. She determines that the athlete who presents themselves as chronically fatigued does not in itself present with a genuine pathology, which merits a medical response. Perhaps they have a traditional conception of medicine wherein it is only legitimate to use medical means in response to an underlying pathology or disease, that can be ascertained scientifically (statistically), independent of value judgements, or subjective reports of, for example, tiredness?

Within the philosophy of medicine, Boorse's (1977) theory of disease and indeed health sustains the position of our conservative physician, though it has been the subject to many challenges (and indeed responses²). This notion of disease, and enhancement as a deviation from a norm, is referred to in WADA's policy (see e.g. WADA's International Standard for Therapeutic Use Exemptions, 2016). Within the philosophy of sport, Morgan rejects such non-normative leverage for developing normative pictures of sports and doping regulations. If true, or at least if useful, it could provide a strong basis from which to defend anti-doping policy.

Boorse's earlier work defines health with the use of the following:

1. The reference class is a natural class of organisms of uniform functional design; specifically, an age group of a sex of a species.
2. A normal function of a part or process within members of the reference class is a statistically typical contribution by it to their individual survival and reproduction.
3. Health in a member of the reference class is normal functional ability: the readiness of each internal part to perform all its normal functions on typical occasions with at least typical efficiency.
4. A disease is a type of internal state which impairs health, i.e. reduces one or more functional abilities below typical efficiency.(Boorse, 1977: 555)

For our athletes being prescribed with thyroxine the legitimacy of this intervention hinges on how a 'reference class' (i.e. a group of individuals) respond to heavy training loads. If the

² See Boorse (1997) for the *locus classicus* but also, and more recently, Kingma (2017) for an excellent summary of the literature in this field.

typical or normal response reflected in the tests (sub-normal thyroid function tests) was evident throughout the reference class the reported tiredness of the athletes can be seen as normal effects of training. The athlete in our example is responding to heavy training in a species typical fashion, tiredness is not a threat to survival or reproduction and therefore medical means are not legitimate. We might build upon the conception of health defended above, to say that morally legitimate use of resources, or indeed the practice of (sports) medicine, should be understood as a response to a deviation from species typical functioning that threatens the individual in some way.

Is this approach to the identification of normal functioning conclusive? The approach relies upon being able to scientifically describe what constitutes a disease, which will determine what constitutes a therapy. But this appears to run into problems once we try to draw conclusions from the responses of the reference class. First, we have to consider what the appropriate reference class would be. Let us assume that the reference class must be composed of elite athletes rather than a population-wide sample. Then we can see how levels of functioning might deviate and indeed drop below the norm in similar athlete patients. Then we are presented with the difficult task of deciding what sample would be similar and large enough to draw valid conclusions. It is unlikely that this selection of the reference class would be an enterprise completely devoid of value judgements, and since the power of Boorse's theory rests on a biostatistical, not normative, basis this seems to weaken the position (Kingma, 2017). Secondly, some interpretative methodology will be necessary in order to statistically analyse data (Cooper and Nevill, 2005). If everyone in the reference class shows similar decrease in thyroid function then we may conclude that this is a problem of living (more specifically of intense athletic training) rather than a specifically medical one. What if a proportion of the reference class, however, do not respond to training in this fashion? At what stage (or with reference to what levels of statistical significance) should we conclude that the response of our hypothetical athlete is an abnormal one, requiring medical intervention? At some stage it seems that these decisions require some sort of value judgement as to what constitutes a significant finding, and one of the stated advantages of such an account is that it seeks to avoid such value judgements.

There are further challenges to conceptions of health derived from scientifically ascertained measures of species typical functioning. One important observation is that normal responses need not always rule out a medical problem. That the reference class would all respond to the heavy training load in this way need not suggest that at root there is not a health problem, but rather that sport participated in at this level causes certain health problems which is reasonable to respond to via medical means. Thinking along these lines might help shift us away from a conception of health and therapy based upon bio-statistically derived normality and its restoration and toward a conception of the therapy-enhancement distinction that takes note of the sporting environment and its attendant stresses and strains.

It seems that trying to distinguish between appropriate and inappropriate thyroxine use, with appeal to Boorse's conceptions of health and disease, appears problematic. Value judgements are likely to be needed at a number of stages. This of course raises the question, which or

whose values are best used to define such concepts. Morgan's (2009) conventionalist stance addresses this very issue. On Boorse's account outlined above notions of disease and health exist in nature. The proper understanding and use of the term disease does not deviate from culture to culture, or according to history, but requires identifying a deviation from a non-normative species typical norm. Morgan offers a conventionalist view of the treatment-enhancement distinction. His account explores (some) conventions that surround such distinctions and how they might change as our attitudes change toward sports and the use of medications. Morgan (2009) points out that sport itself can be argued to be an unhealthy pastime, indeed we might say that the ethos of elite sport and anti-doping policy ought not primarily be concerned with potential harms to health. He argues, on descriptive or empirical grounds, that elite sports are contexts in which the use of medical means in order to better compete is commonplace. This appears permissive to the extent that he has no normative leverage to prohibit substance misuse, such as the widespread over consumption of anti-inflammatories, in many team sports. He writes:

When drugs are enlisted in our effort to cope not just with the rigour and stress of everyday life, but further with the rigour and stress of performing music, or churning out new intellectual ideas and products, or pursuing athletic dreams, it suggests that what we are doing in all these cases is more so treatment than enhancement. In other words, part of the reason why substances like steroids are no longer considered morally toxic to everyday living, or music-making, or athletic pursuits, is that they now seem to be beneficial ways to sustain our performance in these disparate endeavours, that is, as treatments, rather than as ways to raise the level of the already impressively high standards that are regularly achieved in these endeavours, that is, as enhancements.

(Morgan, 2009: 170).

Modern elite sport, Morgan argues, has arrived at a point where it is reasonable to consider (some) steroid use in order to recover from hard training sessions as a treatment rather than enhancement. Being conventionalist Morgan's account does not appeal to scientific conceptions of normality, or indeed any other conception of normal function in order to distinguish between therapy (restoring function) and enhancement of capabilities beyond normal function. For Morgan the key question is not whether thyroxine is a therapy or not, but whether it is perceived by a relevant sporting public to be consistent with the kinds of tests that sport offers, or whether it is in some way a threat to the integrity of the competition itself.

With respect to the characterisation of medical means, Morgan explores some empirical evidence to suggest that a modern Western notion of treatment has rejected the Boorsian conception. Those activities - like the use of medications such as steroids or possibly thyroxine in order to prepare for, and perform in, athletic contests - are ethically defensible against a broader conception of living well. It is important to note that Morgan's account is not excessively permissive: he rules out those medical interventions that threaten the test of athletic excellence. He argues that the use of Beta Blockers to steady the nerves and hands in an archery contest is a case in point. The general argumentative strategy is employed elsewhere in the

literature (Camporesi and McNamee, 2012, Devine, 2011; and Murray, 2009). Camporesi and McNamee (2012) reject the use of Vascular Endothelial Growth Factor (VEGF) to diminish subjective experiences of pain during endurance activities because of its threat to their integrity.

Morgan's approach is attuned to the modern day conception of elite sport. His approach stands in contrast to WADA's Code, whose preamble is founded on a conception of spirit of sport that includes heterogeneous values such as health, and fun, which has been challenged for being too distant from current elite sport practice (Savulescu *et al.*, 2004). Morgan defends a treatment-enhancement distinction not dependent on biomedical or bio-statical line drawing. Something may well be considered an enhancement beyond sporting contexts (or indeed in some sports but not others), but within a system designed to test athletic excellence, it may be best understood as a treatment. Likewise, something might be understood as a treatment outside of sport, but within sport be deemed an enhancement of some kind.

One objection to Morgan concerns the idea that taking steroids in order to recover from hard training does not threaten the sporting test of athletic excellence. He writes:

Since substances like steroids allow athletes to train harder, by among other things reducing their recovery time, and since training harder is itself a response to the rise in levels of athletic accomplishment that enjoy wide public support, their ingesting is best interpreted as a cultivation of athletic excellence rather than a corruption of it. For the point of an athletic test is not to gauge how quickly one recovers from training sessions, but rather how well one performs when it most counts, that is, on the field of play itself when confronted by the challenges posed by one's own competitors. (177)

Morgan rejects the use of anxiety medication that directly affect the athletic ideal preserved in the contest, understood as performance on match or race day. This may be conceived of as a piece of sport reductionism; it reveals how Morgan seems to privilege both the contest as event, and a skill-dominated conception at that. Sport is at least in part a process concerning skill acquisition, entrenchment, perfection, but also a test of bodily and psychological capacities. And these are indeed affected by by-passing recovery times, reducing fatigue experienced as part of the training for competition and so on. Yet Morgan overlooks this point. He writes "steroids don't impede or otherwise interfere with the execution of central athletic skills, but complement the execution of those skills by eliminating an (irrelevant) impediment to them." (ibid) This is too swift. It is more than difficult to distinguish the avoidance of fatigue because one has taken a medication to alleviate or diminish fatigue from one's regimen since one thereby gains an advantage over one's opponent. De Coubertin (1894) wrote of the ethical value of effort, but his admiration was not unbounded. Effort is exceptionally important to success in athletic achievement, but it must be understood as one component among many, and not a good that has unlimited value or priority. Morgan is right to hold that anxiety is sport-relevant, but so too is fatigue.

The focus on events may shade the fact that athletic tests measure the ability of an athlete to sustain long periods of heavy training loads in order to attain excellent performances. Medical intervention to support this training appears to be directly affecting the test of, for example marathon runners, where the ability to tolerate and remain fit during heavy training loads is key. This is one significant objection to Morgan's more permissive stance, if not to his overall enterprise of offering a conventionalist distinction between treatment and enhancement.

A further objection concerns Morgan's conventionalist approach that attaches normative significance to the ethos of elite sport. One challenge to conventionalism is to locate conventions that are not shared. We presume that such a case would diminish its normative force. For example, as seems to be the case in professional football (soccer) in the UK, the misuse of prescription medication is so widespread that concerns for athlete's health have reached a significant level (Mundie and Jurejko, 2017). It may well be that American Football's anti-inflammatory misuse exceeded these concerns long ago. More problematically, it has taken a near crisis in concussion related injuries for the conventional understanding of the place of head injuries in the game to shift. For Morgan, methods such as the liberal use of anti-inflammatories by soccer players, at times for perceived performance enhancement, may well still be considered treatment if the consensus from interested parties (what has been called the "reference class" Boorse, 1975; 1977) believe that this is just part of the game. Yet we know that such use is highly problematic on medical grounds. So, one group – sports physicians – hold that this is at best a placebo and at worst a self-harming convention. Athletes (or at least some of them) believe it is prophylactic or even therapeutically justified. How do we determine the normative legitimacy or superiority of the respective conventions?

Morgan's conventionalist approach is more permissive than either traditional medical practice or current anti-doping policy. It draws upon the prevalent ethos in elite sport as accepting of a broader range of legitimate biomedical interventions. His approach takes into account the context in which language and such distinctions are made, rather than one that suggests that a disease and the therapies that seek to address it are natural categories rather than socially constructed ones. In contrast for Boorse (in theory at least), discerning what constitutes a therapy is a scientific matter, and this (though not incontestable) leaves less room for manoeuvre in developing anti-doping policy. As we have seen though, the contrast between value laden theories of health, and Boorse's approach may be overstated. In the case of thyroxine, we have demonstrated the difficulty in appealing to a value free approach in distinguishing between appropriate treatment, and measures that would not qualify as treatment.

And what of our thyroxine case? Can we defend a clear distinction between appropriate medical treatment, and inappropriate perhaps even unethical use of thyroxine in a sporting context? Utilising a naturalist approach here has come up against some significant obstacles. Boorse's intention to stipulate a norm independent of context and value judgement has been subjected to critique. It seems that value judgments will likely form some role in deciding what constitutes a health problem or otherwise. While not advocating a naturalist account explicitly WADA's approach (see WADA, 2016) does seem to draw upon ideas of normality, health and enhancement that might be supported by a Boorsian approach. One option might

be to acknowledge the problems of the general naturalist approach, but retain its place specifically within anti-doping policy on a pragmatic basis. Is this just bad (epistemic) faith? To be sure it is problematic, yet at least it offers a clear account for line drawing and a consistent basis for such. Morgan's conventionalism, in contrast, relies at least in part on athletes' agreements. Note we do not say "consent" since this has epistemic implications that are highly unlikely. Achieving a level of informedness concerning long term risks and benefits to satisfy the term "consent" seems unjustifiably optimistic, as is the idea that their decisions might be wholly voluntary.

While the rejection of a very narrow definition of health such as that proposed by Boorse seems reasonable in light of existing practices, the use of thyroxine to attend to the effects of heavy training still provokes unease by medicalising a normal sporting problem, tiredness after training. Indeed we might go further and say that the sporting test itself ought to represent a test not only of performance on the day, but with how well someone deals with their training load as part of the process of sport from preparation through performance and on to recovery. Medicating for such responses seems to jeopardise the test in a manner analogous to Morgan's beta-blocker using archer, or the endurance athlete using VEGF.

While sport legislators and those formulating anti-doping policy acknowledge the difficulty in distinguishing between therapy and enhancement in order to preserve the sort of test that sport ought to be, some reasoned differentiation is required. It may well be that this is not best captured in the metaphors of a line or line-drawing, over and below which cases can neatly be placed.

In the context of WADA's PL, the use of thyroxine to compensate for such heavy training loads threatens to undermine the integrity of the contest. It compromises health (at high dosage, use can lead to tachycardia's, potential for cardiac rhythm disturbance, weight loss, intestinal hurry and exacerbation of anxiety symptoms). It also seems to fail the spirit of sport test, understood as the preservation of the integrity of the competition itself (Cleret *et al.*, 2015). This approach will not be without its problems. If the move is to prohibit the substance on these grounds applications for therapeutic use exemptions for thyroxine will still be difficult to justify. Nevertheless, we agree with Morgan that some focus on the nature of the test itself is necessary in order to determine the permissibility of medical interventions.

Thyroxine and the Spirit of Sport

To drive our position home, however, we need to establish that not pathologically indicated thyroxine use is contrary to the spirit of sport. There are claims that its use is widespread, suggesting at least the possibility that many do not consider it contrary to the values of elite sport. Add to this an apparently permissive attitude toward permitted substances that might be thought of as helpful to performance.

The defence of the spirit of sport criterion as an ideal rather than a reflection of current elite sport values has been made elsewhere (McNamee 2012; 2014). Morgan, *inter alia*, focuses on an understanding of sport, after Robert Simon (1991), as a mutual striving for athletic excellence. Means that do not threaten this pursuit of excellence are permissible, even those that

entail medical means to support striving for excellent performance. Here we argue for a greater emphasis on the means via which athletes strive for sporting excellence. At elite levels, at least, athletic contests supervene other activities and experiences concerning the monotony of training, and overcoming niggling injury, as well as the test on competition day. Here we suggest that to medicalise training and performance threatens the values that such a test ought to promote. The ideal of athletic excellence, conforming to the spirit of sport, challenges athletes to consider what they can do to better achieve their goals, how they might train differently, improve technique. And, yes: to train harder too. But not at all costs. How are we to best capture the limits of what is acceptable or permissible? It seems reasonable to assume that there are limits. Would anyone really support medication that allowed one to regenerate one's muscles and other biological systems with an hour's sleep in order to train 18 hours a day not 5? Such a regime that enabled training to that extreme would seem problematic on the grounds of sport-continuities between the ancient Olympic contests and our modern day heroic endeavours such as the Tour de France.

This approach still relies on a distinction between therapy and enhancement, even one that is open to challenge at its borders. After all, a distinction need not be watertight in order to be useful. The alternative is to reject all medical interventions for injured athletes during training and performance. This is not an idea that has gained much traction. Are we so worried about the abuse of the TUE process that we would deny athletes their rights to healthcare?³ Neither Morgan nor we would support such a move. The question then remains, if we are to eschew conventionalist understandings, how do we ground that position.

Our claim here is that part of Boorse's account might be used, in asking whether the symptoms are an (ab)normal response to training, or attributable to something unique to the individual's physiology. Certainly Boorse's account brings with it philosophical baggage that is problematic, but the account might still help us form a foundation for the conception of spirit of sport outlined above. Morgan has acknowledged the limitations of a conventionalist methodology. In finding public support for a more *laissez faire* attitude towards sporting pharmacology, he merely draws on examples from Hoberman regarding how great performances from doped athletes have still commanded public admiration. Nevertheless, as he acknowledges, this is hardly a methodologically robust basis for normative justification. One may just as well refer to the loud spectator derision at the 2017 IAAF world championships where American sprinter Justin Gatlin won gold, having twice previously been found guilty of anti-doping rule violations. Now of course, we do not know whether these large sections of the crowd were simply expressing anti American sentiment or an anti-doping one. Large surveys would be needed to determine that. And perhaps that is no bad thing that we undertake such research to give legitimacy or otherwise to anti-doping policy. Yet even where there appears to be support for more permissive attitudes this does not give Morgan what he needs. His more nuanced position is that substances like steroids are legitimately used to maintain continuity of performance not enhance it in a morally relevant sense.

³ For an extended discussion of cortisol and testosterone in the light of the Therapeutic Use Exemption process see Camporesi and McNamee (2018: 103-8)

Following the Aristotelian dictum of expecting precision only to the degree the subject matter allows, we hold that for the purposes of anti-doping policy Boorse's distinction is sufficient for the task at hand. Still, one might look to modify the position to generate greater acceptance. We might happily follow Daniels' rejection of the heavy burden of Boorse's epistemology, while still embracing the notion that the distinction does justice to several widely shared intuitions concerning medicine and health and is a: 'focal point for convergence in our public conception of what we owe each other by way of medical assistance or healthcare protection' (Daniels 2000, 318). He goes on to argue that the distinction can support judgements of the medical necessity of interventions⁴. A further methodological point might be to query whether the sporting public's acceptance of medicine to pursue the goal of being "better than well" is more parochial (ie American) than Morgan assumes, tied closely to privatised healthcare and a penchant for a pharmacological response to existential problems.

Part of the expertise of sport preparation and competition is the ability to cultivate high degrees of self-bodily awareness, and with medical and scientific analytics, to tailor training, to ease off - or taper down - to recover fully or at least sufficiently, to return to training of competition. Sometimes this will require medical treatments, sometimes not, and sometimes it will even require treatments that, like the doctrine of double effect, may bring some performance gains (Pike, 2018). Nevertheless, this move already occurs within the compass of current anti-doping policy, where efforts are made to restrict athlete's participation on such grounds. The suggestion however, is not that such judgements of normality can be made independent of value judgement, but rather that asking this question is a good start point from which to draw a line for the purposes of anti-doping policy. We do not, however, claim that the line drawing is without its problems nor that it generates ahistorical demarcations. But then Boorse did not claim that either, and acknowledged that reference classes are not fixed in that way. Rather the boundary between therapy and enhancement, is a continually revisable line from which to help navigate the ethics of medical interventions in sport. In that regard, we are in sympathy with Morgan's Wittgensteinian point that agreements in judgements are what ground the rules of our actions.

What of the particular case of Thyroxine? Perhaps more can be done to demonstrate that the use of thyroxine to attenuate the effects of heavy training is contrary to the spirit of sport. One way in which to seek to distinguish between different uses and abuses of thyroxine is to reflect upon the athlete's intention. Does the athlete intend to gain an unmerited advantage over their opponent by using such a substance even where the enhancement is only perceived?⁵ This would certainly be contrary to the spirit of sport. Intention, however, is not a central aspect of anti-doping policy. An athlete can be found to have committed an anti-doping rule violation regardless of their intentions, and indeed heavy sanctions may follow, even where the athlete denies their intention to cheat. This strict liability principle embodied in anti-doping policy makes sense at a pragmatic level, incorporating *mens rea* in sustaining anti-doping rule violations would be too burdensome in terms of time and cost (McNamee and Tarasti, 2010).

⁴ See Camporesi and McNamee, (2018) pp97-9 for a fuller discussion of this point within medical ethics.

⁵ We are grateful for the comments of Jon Pike for indicating this line of enquiry.

This overall line of argument offers a potential justification for placing thyroxine on the PL by avoiding the contentious question as to whether it enhances performance or not, and suggesting that at least in some cases the use seems to reflect a potentially harmful way of medicating that is contrary to the spirit of sport. Thyroxine use could be viewed as contrary to the spirit of sport because it involves medicating for normal responses to training. Where such responses are not normal that athlete would require a therapeutic use exemption to take the substance. The defence of this approach is arbitrary in the sense that it does not require that this is based upon an especially precise demarcation distinguishing between therapy and enhancement. Rather it draws a line between therapy and enhancement in order to preserve sport as a particular kind of relative test of athletic abilities and capacities.

Implications and Conclusion

Bill Morgan has addressed a vast range of issues in the ethics of sports. His decades-long forays have been consistently critical, challenging and insightful. With respect to the treatment and enhancement distinction, he advocates a position respectful of the views of those central to sporting practices. His more permissive stance is grounded in the conviction that this reflects our shifting views around what constitutes a treatment, and what constitutes sporting excellence.

We are in sympathy with Morgan's concern that athletes voices be given due space and respect. While it is true that athletes have some representation on WADA's committees, how their voices are heard, or whether there is any accountability for representation by athlete representatives to the body of athletes themselves is unclear. Although a number of organisations have recently emerged that represent athletes' rights in a manner consistent with trade unions or professional membership bodies, WADA do not currently recognise any of them for the purposes of negotiating the social contract between athletes and anti-doping authorities. Morgan's democratic impetus has point and purchase here.

Greater engagement with athletes and those that represent them ought to be a priority more generally in formulating sports policy. Yet, as we have argued there are limitations as to how athletes might contribute meaningfully to a debate that requires medical and scientific expertise. Here physicians must guide their athlete patients to good decisions. This of course leaves grey areas, and thyroxine use appears to be one such area, where a difficulty in distinguishing between treatment and non-treatment appears to exist. In trying to decide upon normatively justifiable uses of thyroxine we have drawn upon a conception of the spirit of sport that differs from Morgan's. In advocating greater attention to the means by which we seek to attain athletic excellence we suggest that Morgan's more permissive stance might be revised. Thyroxine it is argued, used beyond medical necessity, can corrupt those aspects of sport performance that contribute significantly to the nature of the test. We have also remarked on the potential harms to health associated with such use. Our position draws upon a conception of the Spirit of Sport as an ideal, rather than reflection of current elite sport practices, and makes pragmatic use of a Boorsian account of health, as a means with which to draw a (revisable) line as to appropriate and inappropriate uses of thyroxine.

While we have argued that we can distinguish between ethically legitimate and illegitimate uses of thyroxine in a sporting context, the decision as to whether to add such substances to the PL may well encompass other factors. The misuse of prescription medications, even when their enhancing effects are in question certainly seems the sort of issue WADA ought to be concerned with. The combination of the spirit of sport and health criteria may well justify a ban in terms of the existing policy. It is an open question, however, whether adding to the PL is the most effective manner in which to address an apparent ‘mission creep’ of sports medicine into the domain of enhancement or intended enhancement.

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