ROUTLEDGE

SPORT, MEDICINE, ETHICS

Mike McNamee

Sport, Medicine, Ethics

The ethics of sports medicine is an important emerging area within biomedical ethics. The professionalization of medical support services in sport and continuing debates around issues such as performance-enhancing technologies or the health and welfare of athletes mean that all practitioners in sport, as well as researchers with an interest in sports ethics, need to develop a clear understanding of the ethical aspects of the sport–medicine nexus.

This timely collection of articles explores the conceptual and practical issues that shape and define ethics in sports medicine. Examining central topics such as consent, confidentiality, pain, doping and genetic technology, this book establishes an important baseline for future academic and professional work in this area.

Mike McNamee is Professor of Applied Ethics in the College of Engineering at Swansea University, UK. He is editor of the international journal *Sport, Ethics and Philosophy*, co-editor of Routledge's landmark book series *Ethics and Sports* and a former President of the International Association for the Philosophy of Sport.

Sport physicians are mostly dedicated practitioners doing everything possible to either keep their patients healthy or able to return to their sport or physical activity following injuries. However, the zeal to heal and to assist patients/athletes may lead the sport physician into the realm of performance enhancement. Mike McNamee brings an enlightened, occasionally provocative and necessary debate to this arena. This book delves into many topics that particularly resonate in sport, such as confidentiality, doping and genetic enhancements. Elite sport is often the testing grounds for these important and complex ethical issues that will increasingly permeate through many facets of society.

Dr Alan Vernec, Medical Director at the World Anti-Doping Agency

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Finally, the book is dedicated to the loving memory of my Mam, whose love and wisdom shone like a beacon the whole of my life.

1 Locating the ethics in sports medicine ethics

The cover photograph of this book is that of a sports medicine team attending Petra Madjic the Slovenian skier. I am most grateful to Ales Fevzer for his kindness in permitting its reproduction here. I first saw it in 2013 on a lecturing trip to Ljubljana, Slovenia; a large-scale copy of it appeared in an Olympic art installation in the Tivoli Gardens. I asked my host and friend Lev Kreft to tell me the story behind the photograph. He not only did that but also helped me to contact the photographer. I was immediately struck by its resonance with the many religious paintings of Christ taken down from the cross, dead, held in the caring arms of Mary, his mother, and Mary Magdalene. Such paintings are referred to generically as the 'Lamentation of Christ'. Though not dead, the Slovenian skier might well have been. Madjic, a strong contender for a medal at the 2010 Vancouver Olympic Games found herself in a tragic situation when – in a training accident immediately prior to the event – she broke four ribs and punctured a lung. Against the apparent wishes of her coach, she insisted on competing and with the aid of the sports medicine team, was patched up and competed, winning a bronze medal. She attended the medal ceremony in a wheelchair and was lauded a national hero in Slovenia where she received the country's Golden Service Award. She also received international acclaim for her heroism and was awarded the Terry Fox Award for Olympians who display courage, humility and extraordinary athletic ability. Yet some nagging thoughts remain: ought she to have competed, risking her life in so doing? Ought the sports medicine team have consented to her express wishes or refused to assist her courageousness/recklessness? What are the end goals for sports medicine between prevention, therapy and maintaining or enhancing their athlete patients' performances? These are the kinds of ethical questions that are the focus of this book.

While the development of the area of applied ethics called 'sports ethics' has been the subject of considerable international activity over the last two decades, 'sports medicine ethics' remains in its infancy. Part of the reason for this is that sports medicine has only recently become professionalized and in the development of any discipline one can expect focus to be tightly zoned in on what are seen to be essential matters. The drive to professional respectability in sports medicine, an occupation that has not been without its own snake oil salesmen, has focused

on issues such as developing evidence bases regarding aetiology, precise injury diagnosis, efficient treatment modalities, and so on.

Whence the ethics of sports medicine? Recently, a few articles have been published (Green 2004; Dunn *et al.* 2007; Testoni *et al.* 2013) attempting to take an overall perspective of sports medicine ethics rather than focusing on one-off issue-based discussions. None of these, I claim, have got to the heart of sports medicine as an ethical enterprise. One important reason for this is the presence of bloated claims to the uniqueness of sports medicine ethics. In trumpeting its differences from other branches of medicine, there has been neglect of the many commonalities that sports medicine shares with other branches of medicine, being host to issues such as confidentiality, conflicts of interest, the protection of vulnerable patients, the relief of suffering, the promotion of health, and so on. Of course, the way that these ethical issues arise in sports medicine is likely to engender similarities *and* differences. Thus in attempting to understand ethics in the context of sports medicine it is necessary first to think about the language in and through which we think and talk about the nature of medicine generally.

Good medical practice in general is often said to exist somewhere between art and science:

> The split into science and art does not do justice to its character as a *practice*: the scientifically informed, experienced, well-reasoned care of sick people. The intellectual virtue of *phronesis* – the practical wisdom that is the pride of good clinicians – is overlooked in favour of an outmoded, rather Cartesian split between the good, hard, reliable stuff and the mushy but inescapable ineffabilities.
>
> (Montgomery 2000: 58)

A substantial reason for the need for wise judgement rests upon the kinds of human goods and needs that medicine addresses: death, disability, harm, injury, illness, well-being, and so on. These are weighty concepts in the serious matter of living, and of living well. While there are commonalities across branches of medicine, some branches in particular will lay heavy emphasis on a portion of that catalogue. Thus sports medicine has traditionally concerned itself with athlete patients' health, illness and injury prevention and recovery, and also with their functional fitness. Decisions concerning recovery, return to play, retirement, and coping with sporting life are rarely reducible – without remainder – to medical knowledge. They will also entail, in the considerations of best interests, the particularities of the age, life and sports status of this or that athlete patient and what *they* as persons value. This will require not just scientific knowledge and appropriate clinical skills but broader human capacities and values such as empathy, insight, imagination, sensitivity, attentiveness, perception, and so on.

This book can be seen as an attempt to exemplify the notion of *phronesis* or practical wisdom that Aristotle thought was at the heart of ethics, conceived of as a practical activity central to living a good human life in general, and good sports medicine practice in particular. How might we best conceive of ethics in the

contexts of sports medicine? Part of the problem here will be a widespread failure to analyse terms that are in current use such as 'ethics' and 'morality', which are often taken as synonyms. Yet we cannot simply exchange the words 'ethics' and 'morality' because of the complex conceptual disputes that these terms are merely a front for. Most would be able to cite examples of ethical and/or moral ideas in life as in medicine. A generic list might include items like 'duty', 'good character', 'obligation', 'principle', 'respect' or 'rights'. They might give instantiations of these ideas in research in terms of 'anonymity', 'consent', 'privacy' and so on. But, properly speaking, before we can fully understand at a more reflective level the scheme of things that allows us to recognize all the issues in sports medicine it is essential to consider carefully the concepts of 'ethics' and 'morality'. This renders necessary some linguistic analysis and some stipulation.

It may not surprise the reader to note that many philosophers distinguish 'ethics' from 'morality' contrary to their ordinary meanings. People often talk in a way that implies that morality is what governs their personal relations while ethics refers to more impersonal or institutional relationships. In contrast, philosophers tend to reverse these meanings: 'ethics' is the local, particular, thick, stuff of personal attachments, projects and relations while 'morality', by contrast, is detached, general (even universal), impartial, thin rules or norms governing how you should treat others or be treated by them. What 'ethics' specifically is taken to mean, then, and what norms for conduct ought to be followed, is hotly contested. Very often ethical issues are grouped and identified under the name of a particular group or institution: bioethics, business ethics, Christian ethics, feminist ethics, journalistic ethics, medical ethics, military ethics, professional ethics, sports ethics and, of present concern, sports medicine ethics. This leaves us in something of a difficulty; how shall we understand sports medicine ethics in this book in a way that is both coherent and defensible? There are three interrelated strands.

First, for the purposes of this book, I shall take 'ethics' to refer to the philosophical study of morality, ethical theorizing, and the social scientific study of morality in particular settings. The latter is normally referred to as descriptive ethics, but falls easily under the heading of practical or applied ethics of which this book is an example. Many social scientists undertake research of ethical issues in sports medicine. Take for example the complex ethics of concussion diagnosis and management (Goldberg 2008; Malcolm 2009) and the potential conflicts of interest that can arise in relation to the clinical treatment therein of professional sports (Gilbert and Partridge 2012). Social scientific studies typically entail gathering data first hand, whether in the form of qualitative and/or quantitative questionnaires and interviews, of media reportage, and so on, and then subjecting them to critical evaluation. Social scientists will want to record how many athletes have been concussed, in which sports and what positions, how long they were or were not excluded from sport, and so on. These are all relevant facts to an understanding of the ethical problems that concussion gives rise to in sport. A third strand of ethics often accompanies these understandings and is referred to as normative or practical ethics. In this understanding, one looks for

applications of either philosophical or descriptive ethics, or indeed of both. Much of this book combines, to differing degrees, each of these three general understandings of the word 'ethics': ethical theory, descriptive ethics, and normative ethics. Thus one can consider issues of autonomy and paternalism in return to play instances when attempting to determine the extent to which the athlete has been concussed; and one can form rational judgements about their return to play in contexts where significant others (like coaches) may attempt to influence decisions along sporting more than medical grounds (McNamee and Partridge 2013). What has *not* been attempted here, since this book is essentially one in applied ethics, is an extended consideration of the nature of 'ethics' itself. This field is referred to as meta-ethics. But in this introductory chapter, some words of qualification regarding ethical theory and practice are necessary.

Note, however, that I am not suggesting that these levels are either given or necessary in any absolute way, nor that they are evaluatively naïve or theoretically innocent. The constructions of these levels of philosophical endeavour are a product of writings over the centuries. And they are the product of a Western intellectual posture. The extent to which other cultures might challenge these levels is not considered here. So, for example, many in the West have previously assumed that ethics is comprised of moral standards that apply to our general conduct as social beings, which are continuous with Christian moral teaching, such as adherence to the Ten Commandments. Different cultures have slightly different systems of thought. Yet in parts of Africa, by contrast, the concept of Ubuntu regulates behaviour, and enjoins adherents to act and promote what might best be termed 'communal humanism'. Equally, in Asia a model of ethical deliberation and decision making is less individualistic than is typical in the West, and is both more communal and may – at least more commonly – be considered paternalistic.

For the purposes of this book it might be useful to think of the levels of ethics, then, as a heuristic device: a way of charting the difficult terrain of morality where the push and pull of life draw us in different and often competing directions. Ethics, in various ways, helps us think systematically about, for example, the issues of medicine in the contexts of sports' various processes of preparation, participation and recovery. The reader is not logically compelled to think of ethics in this way. In attempting to ask the enduring philosophical questions – Why be moral? What are the strictures of morality? Which are the most pressing of morality's demands? Are moral demands universal? Is respect the cornerstone of morality? – distinguishing these strands of ethics has been found useful.

Meta-ethics

Meta-ethics is that field of ethics where philosophical abstraction is greatest. While moral philosophy generally attempts to deepen, revise and systematize reflection on how we believe we ought to conduct our lives, meta-ethics reaches to the foundational claims of all moral theories and practices. What are the grounds of moral authority? Is one moral theory more complete than any other? Can there

be moral knowledge? Are moral principles unique in character? Are good and evil merely non-cognitive expressions of emotions or preferences? Do moral properties exist in the world or are they merely subjective or cultural constructs? These questions are among the most fundamental for all moral philosophers to pursue.

The ethics of medicine and sport, individually or jointly, does not venture into this abstract terrain. At times, however, fundamental questions are begged by practical cases, and at other times one may find the way in which one sets up a problem or indeed answers it is an implicit product of a particular meta-ethical viewpoint. By contrast, much deliberation in sports medicine ethics does not directly address these profound questions, but simply assumes answers concerning the authority of morality over how we proceed when confronted by what seem to be conflicting demands. By contrast, sports medicine ethics proceeds at a very applied level, which oscillates between normative and descriptive ethics.

Normative or practical ethics

The impulse to systematize is among the most basic for philosophers. Normative ethics shares with meta-ethics the need for abstraction from particular persons, or practices, or policies into clear, coherent and consistent approaches. It might be useful to think of meta-ethics as addressing issues that relate in a foundational way to all moral theories. Normative ethics can then be thought of as the development of moral theory or theories. There are those who complain that if ethics is not practical then the philosophical engine is somehow idling. While meta-ethics shapes the kind of ethical theory espoused, then normative ethics (theoretically informed moral positions) are in themselves a particular kind of theory. It has been argued normative ethics should not be thought of as a scientific theory (Williams 1985) but rather more simply as a coherent and systematic reflection to guide our practices. Some would argue that this thought properly belongs to meta-ethics. This dispute illustrates nicely the difficulties of looking for hermetically sealed categories in the levels of moral thought and practice. Uncontroversially, it could be said that normative ethics is thought to be substantive: it is about getting one's hands dirty in the day-to-day stuff of life, and offering at least defensible solutions to practical problems of how we ought and ought not to act. But it does so at a level that is consciously theoretically informed.

As the term implies, practical ethics is concerned with how we *ought* to act here and now. In the everyday contexts of sports medicine, practitioners find themselves asking such questions as: 'Ought I to act in the best interests of an athlete patient, even when they request treatment I think has only placebo effects?'; 'Am I obliged to reveal the doping practices of my athlete patients?'; 'Can I break a promise of confidentiality if I think it will save a patient from being harmed wrongly or unnecessarily?'; 'Ought I to accept research sponsorship from the tobacco or alcohol or even sports drinks industries?'; 'Ought I to accept gifts from medical sales representatives?' All these practical questions apply in everyday contexts in sports medicine. How we think about them will be informed or uninformed to the degree that we are willing to engage

in philosophical reflections about their normative theoretical base. Whether we know it or not, indeed whether we care about it or not, our attitudes and choices with regard to the conflicts above will be nested within a set of theoretical considerations such as the duty to protect patients' welfare; the respect of colleagues; our obligations to the medical profession; integrity to ourselves, and so on. What is being applied here is moral theory, knowingly or otherwise. The label 'practical ethics' is indeed relevant; we should not think that the term practical means non-theoretical. Rather, it depicts a feature of morality that is widely accepted by philosophers: the conclusions of moral considerations should be action, even where that means a refusal to do something, or to commit oneself to a studied silence. Once we decide that a given problem is best considered in a given light, the conclusion that follows should be action-guiding. So practical or applied ethics should not be inert. An idea very much like this was propounded by Socrates nearly two and a half thousand years ago.

If we are to understand medicine generally, and sports medicine specifically, as a moral practice committed to the good of the athlete patient, then sports physicians must be committed to being good and wise practitioners, not merely technically efficient or effective ones. An awareness of central philosophical theories should, in principle, serve us well in research situations where we begin to understand the push and pull of competing courses of thought, feeling and action. An awareness of such theories can certainly help us towards coherent, consistent and transparent modes of response. In short, it can make responses both accountable and transparent.

In the sections that follow, five well known moral theories are schematically presented. Perhaps it is better to think of them as families of theories since they each house a number of interpretations of a subtlety that we shall not attempt to do justice to here. As with the levels of ethical reflection, it can be helpful to distinguish two kinds of moral theories in a rather traditional way. Some might be thought of as forward-looking, others backward-looking. This labelling should not be taken to imply that theories belonging to the former are especially traditional and theories in the latter are in some way more contemporary. On the one hand, by giving a vector to our moral thinking, backward or forward, I am merely noting that when confronted with a problem, one may attempt to organize one's reflections around important notions that can be understood before one acts, such as certain duties, obligations or rights. On the other hand, one may project forward to those things that will arise in the aiming towards, or achievement of, a certain goal, such as the greatest benefit to a given population, or the achievement of a desirable character trait such as honesty.

In moral philosophy these two perspectives are usually given respectively the labels 'deontology' and 'teleology'. In ancient Greece, *deontology* referred to the science of duty (where '*deon*' is taken to mean 'duty' roughly translated), while *teleology* referred to the scientific pursuit of a given purpose or goal (after *telos*). We will deal with the theories under this description. I will examine first the deontological family of theories (duty theory; rights theory) and then the teleological families of theories (consequentialism – specifically utilitarian theory

– and virtue theory). After a discussion of the nature of practical ethics, I critically present what is almost certainly the dominant approach in Western medical ethics: principlism. This approach embodies a theoretically eclectic position that attempts to combine elements of deontological and teleological parameters of moral practice and thought as applied to medicine.

Consequentialism

The idea that religion unequivocally provided us with moral rules justified a picture of a kind of moral law. What drove human beings to act rightly was observance of its authority. Consequentialism, by contrast, appeals to the empirical, the here and now of human welfare. It is driven by the idea that what human beings seek is that which is good for them and that they seek to avoid what is not of benefit to them. In a famous passage, the founder Jeremy Bentham claimed that pleasure and pain were our sovereign masters. It followed then that questions of moral rightness or wrongness hinge upon assessment of good (pleasurable) and bad (painful) consequences. At first sight, ethically evaluating research would seem a perfectly natural extension of utilitarian thinking. What we first look for in research is very often related to the question of what benefits and/or drawbacks it will bring. This is nothing if not consequentialist thinking.

Perhaps the most well known form of consequentialism is utilitarianism associated most famously with John Stuart Mill, and his book *Utilitarianism* first published in 1861. It is the clearest exposition of the theory first developed by Jeremy Bentham, (see his *An Introduction to the Principles of Morals and Legislation,* first published in 1789). The central idea in this moral theory is quite simple, and is captured in this passage from Mill:

> Actions are right in proportion as they tend to promote happiness, wrong as they tend to promote the reverse of happiness. By happiness is meant pleasure and the absence of pain; by unhappiness, pain and the privation of pleasure.
>
> (Mill 1962 [1861]: 257)

Utilitarianism claims that morality is concerned with doing good, so that when we assess the morality of what we choose to do our only consideration should be the utility of acting in one way or another. 'Utility' or 'good' can have a number of meanings including pleasure, happiness, welfare and the satisfaction of preferences. All of these conceptualizations can be considered under the heading of 'beneficence' – a principle of action aimed toward good. Equally, when considering the goodness of certain outcomes we must also consider potential harmful consequences in the form of pain, or general disbenefit. These are generally captured under the principled heading of 'non-maleficence', though strictly speaking this refers to non-harm and is a cornerstone of medical ethics. The Latin phrase *primum non nocere* (first do no harm) captures this principle most famously. But this might be a principle adopted also by deontologists as we shall see below.

Utilitarianism is therefore commonly described as an 'outcome morality': when evaluating or attempting to justify a course of action, utilitarians weigh up potential outcomes of each possibility based on the premise that what ought to be done is always whatever produces greater utility. This is often referred to, after Mill, as the Greatest Happiness Principle. A chief value of the utilitarian approach is that it provides a method for noting and evaluating benefits and harms, even if it is not quite the precise mathematical morality its founders had envisaged. Utilitarianism is based on Bentham's 'felicific calculus', which is essentially a means of rational calculation by such measures as the intensity, certainty, extent, nearness in time and duration of pleasure or happiness attained by a given policy or action. A major appeal of utilitarianism, then, is that it produces a right answer in any given situation according to the criteria above. All manner of difficult choices are grouped together and solved merely by seeking a balance between competing considerations that promise to produce the best outcome. However, there are a number of problems with the 'felicific calculus', as we shall see.

A further point must be made in praise of utilitarianism, which relates to philosophical and common-sense language. When the term 'utilitarian' is used in everyday contexts, it is often as a term of abuse. Thus, describing a researcher's attitude as 'utilitarian' means little more than conveying the opinion that the researcher merely used their participant as a means to his or her own ends, subject to their will as a researcher. By contrast, the philosophical theory 'utilitarianism' has at its core an impartial ethic. Anyone relevantly affected by a course of action should be counted in terms of harms and benefits. Sports physicians thus may not privilege themselves in those calculations. They simply count as one relevantly affected member of the whole population whose consequences must be taken into account prior to action.

Moral philosophers distinguish between act- and rule-utilitarianism. The former invokes a utilitarian application in relation to this or that given act, whereas the latter considers the consequences of a given action were it to be considered as a typical course of action. A given course of action, say in disclosing the identity of a patient or their particular condition (say if it were contagious, or harmful to the group as in the case of a doping athlete who was part of a relay team), may yield greater benefits than observing a widely agreed upon duty of respect for the confidentiality of patient data. But what if this were to lead to a situation where revealing the identity of patients became more widespread? Under such a consideration act-utilitarianism looks short-sighted and yields in the medium or long term more harm than good.

One of the appealing features of utilitarianism is that it provides a common *currency* of moral action and justification wherein competing courses of action can be evaluated in terms of a single measure (Williams 1985). This procedure is *prima facie* appropriate for the evaluation of professional practices, as, with the increasing emphasis on the efficiency and effectiveness of treatment interventions or preventative measures, utilitarianism provides a workable framework of evaluation of the best course of action to follow. It allows in our considerations all benefits of different courses of action to be compared. It might allow the physician

to consider efficiency measures within an ethical framework. Thus, if the same outcomes might be reached by less expenditure, cheaper methods, or equally if the proposed novel intervention duplicated existing interventions with little additional benefits but potential risks, we would be able to come to a clear decision as to its benefits or disbenefits. At first sight, this approach looks simplified, easy to use, and offering clear guides to action. There are, however, considerable difficulties in comparing and calculating alternatives.

One problem for clinicians attracted to this theory concerns the pain and/or pleasure attached to the would-be intervention. Although Bentham believed that happiness was a mental state, i.e. that someone is happy when in a state of pleasure and not in pain, we must consider whether, and how, two very different interventions might be evaluated (Bentham 1948). Compare for instance the benefits of shockwave therapy over traditional re-alignment surgery for tennis elbow. The former is not invasive – though often extremely uncomfortable to the patient. It only takes a matter of minutes. The pain – though highly acute – does not persist long (the evidence base for this modality is not especially strong so we must also factor the likelihood of success or failure into the calculation). Surgery, by contrast, requires the retrieval of the tendon from its location, some tidying up work, and re-insertion at a new point of the humerus. The patient, under anaesthesis, feels no pain at the time. Some pain following the surgery is likely to persist for a few days, perhaps a week or two. Return to play is likely to be longer in the latter case. Utilitarians would, in principle, be able to – loosely – evaluate the harm to the patient, and the benefit, too. They would have to bear in mind the good and bad consequences for the player's team, perhaps their double's partner, in recommending the best option, all things considered.

But is it true that we can really compare these benefits and harms? Would it not vary according to how each participant experienced the shockwave therapy – well or badly carried out? Having experienced the intense pain of this modality (though I am assured new machines are less painful to the patient), how might I evaluate the effects on a patient who has a notoriously low pain threshold? Is it true that we can make these interpersonal comparisons or additions? Would the enforced rest have the same consequences for each of the participants? How would we 'count' the scientific value of gaining more precise data? How would we know whether repeating the same experiment with different control groups really gave us a gain in scientific knowledge? This basic example highlights important weaknesses of utilitarianism considered as a simple summing of benefit and harms to evaluate research by.

Ultimately, too much time and effort may be spent in trying to identify the infinite consequences and complications of potential utilitarian calculations of actions. The *reductio ad absurdum* of such a position is one of a life spent calculating future possibilities. And that is not an attractive aspect of a theory vaunted for its simplicity and practicality. Nevertheless, a theory for sports medicine ethics that did not consider the potential harms and benefits of particular treatment options for healthcare professionals would not seem so much incomplete as useless. The consideration of benefits and harms to the patient are certainly

central to the commonest used theory of medical ethics used in Western medicine: principlism. So the issue really is what space must be found for these considerations, and what does an exclusive focus on consequences occlude that ought to be considered in the ethical treatment of patients?

Duty-based (deontological) moral theory

The idea of a moral theory developed as a moral law is typically attributed to the German philosopher Immanuel Kant, and is set out in his *Groundwork of the Metaphysic of Morals,* first published in 1785. His was a moral law of universal duties. Despite its modern provenance, the term itself 'deontology' belongs to the ancient Greek coupling of two words *deon* (duty) and *logos* ('reason' or 'science', very roughly translated). On this theory, moral rightness involves acting out of respect for moral duty. Further, according to this position, one should act out of respect for moral duty regardless of the consequences of so doing. So, for instance, promoting the welfare of research participants would not be a concern to the deontologist strictly speaking. What matters most is doing one's moral duty, irrespective of the consequences.

Given that doing one's duty is the cornerstone of deontology, one critical question that ought to be raised by this approach is precisely how one determines what one's duty is. It should be noted that the 'Categorical Imperative' that Kant took to be the cornerstone of his moral system, requires a little elaboration since there is not one interpretation but two. In the first instance, by wedding morality *and* rationality, Kant sets out what is to count as a moral rule. All moral rules, he argued, must be such that we would will *all* persons to act rationally in accordance with them. In everyday language this is the 'do as you would be done to' rule. It seeks to universalize our thought and action so that we never privilege ourselves or our favoured ones; it thus underwrites and reinforces the notion of moral impartiality, which is one of the cornerstones of utilitarian moral philosophers' thinking and of their social reform programme noted above. The second interpretation of the 'Categorical Imperative' urges us never to treat other people as means to our ends, but rather as ends in themselves, because all human agents, being moral agents and therefore creatures capable of moral choice, deliberation and responsibility, are worthy of our unconditional respect. It is clear that both imperatives operate in the ethical practice of sports medicine.

Consider the issue of placebo use for athlete patients who present or report a given injurious condition or state, which the physician cannot corroborate objectively. Ought we to approve of the use of placebos so that the patient considers himself or herself healed? Kant's answer, roughly, is that one should ask whether one could approve of everyone acting in the same way in which one intends to act. So if one is considering deceiving athlete patients, Kant's line is that one puts to oneself the question: 'Could I approve of everyone acting as I intend to now?' If one could, then one has acted out of respect for moral duty. (Other possible sources of duty include the law, moral intuition and God.) If one could not, then the contrary act is demanded.

In support of this kind of moral theory, it may be that there are some kinds of acts that are simply wrong and can never be justified, e.g. killing an innocent child. For the utilitarian, if harming one sprint relay athlete – say in the disclosing of injury prevalence or predisposition – would lead to more overall utility (i.e. success for the team), it *might* be morally justified to do that on this occasion. Duty-based moral theory captures the intuition that some things are absolutely wrong, some moral duties absolutely compelling, e.g. not to steal, not to kill the innocent, not to lie and so on. Moreover, as we shall see below, deontological ideas such as the respect for autonomy feature very heavily in the Four Principles approach to applied ethics that is dominant in Western medical ethics.

Rights-based theory

Many physicians are aware of the way in which detainees, patients and prisoners were dealt with during the Second World War. As already described, the outrage that followed gave birth to the Nuremberg Code, and later the frequently updated Helsinki Declaration, which were designed to specify the rights that persons could expect *inter alia* from the medical and healthcare professions. The rights that ensued are widely thought to be universally enjoyed by humans in virtue of their humanity. We now take for granted in the West the existence and self-evidency of certain rights: to free speech, free association and movement. We also take for granted that these are powers enjoyed by individuals rather than larger social groups such as families or communities, though there is no strict necessity about this preference. The term 'right(s)', however, is not straightforward to understand. Although the term is naturally associated with the law, moral rights are not co-extensive with legal ones. Of course, the extension of rights claims to foetuses and non-human animals, which also have interests, has been a matter of considerable controversy. The issue of the use of non-human animals in research has been a highly charged one, both legally and politically. It is, however, one beyond the scope of this book. For our purposes we can think of rights as claims or powers either to promote or protect the interests of patients and physicians alike (see Waldron 1999). Such rights are often taken as absolute or inviolable. Typically, the invocation of rights is designed to protect the moral boundaries of a person against other considerations such as economy, efficiency or political or financial expediency.

The notions of rights and duties are commonly coupled. If a patient has a right to know the nature and scope of his or her condition there appears to be, other things being equal, a duty upon the physician to inform him or her, and not to withhold that information. In the case of minors, or those with difficulties that might render them vulnerable (such as a learning difficulty, a psychiatric condition, temporary incompetence brought on by concussion, and so on) this reciprocal demand is problematic. With legal minors it is necessary to determine who enjoys the right to know, or to whom the duty to inform is owed: patient or parent (guardian). The idea that a rights-based approach might exhaustively cater for research ethics has never, to my knowledge, been seriously mooted. While it is

not claimed by anyone to be sufficient, however, there are few ethicists who would ever claim that the claims it makes – often with close relatives in legal rights enjoyed by participants, researchers and subjects alike – can be ignored. Claiming properly that one's interests ought to be promoted or protected within healthcare is indeed a powerful one.

Virtue-based (aretaic) theory and feminist ethics

Virtue-based theories are described as aretaic since their exposition is often traced back to the ancient Greeks, who used the word *arête* for virtue, or excellence of character. Aristotle is often taken as the greatest virtue theorist. His ethics was founded on practical wisdom supported by a well-disposed and settled set of personality traits that are typically called virtues. In recent times virtue theory has enjoyed something of a renaissance (see MacIntyre 1984; Blum 1994) while feminist ethics has a much more recent history (see Baier 1985; Tronto 1993). While the foregoing theories concentrate on principles of action – what we ought to do in order to act morally – the currency of virtue ethics is the character of the person or human agent. As we have seen, the course of action is typically driven by some principle or rule to protect or promote rights, respect duty or maximize welfare. For virtue theorists, however, the central question, which is prior to the moral problems or dilemmas that one faces, is rather of the kind 'How ought I to live my life?' or 'What kind of person am I to be?' or 'What would my chosen role model feel, think and do?'

A very common moral intuition, and one supported by many modern moral theories, is the idea of universality. All persons deserve to be treated equally. In contrast to this, virtue ethics is often described as particularist or situationist. The virtue theorist is not strongly guided by principles, but allows the particular features of a situation to play a determining role in what it is best to do and to be. This gives virtue theory an adverbial quality: we admire in, and expect from, medical professionals such traits as 'honesty', 'integrity', 'responsibility', 'truthfulness' and so on. Even if one acknowledges rights or duties that apply in a given situation, only a person of good character assures praiseworthy action and the avoidance of culpable choices.

Feminist ethics is sometimes thought of as a species of virtue ethics. Unlike the impartial and objectivist spirit of modern moral theories (deontology, rights, utilitarianism), feminist ethics gives a primary role to the notion of connectedness or relationality of persons. This gives a special place in its ethical thought to virtues that display best the concern for human connectedness such as 'care', 'compassion' or 'trust', while opening the door to differential treatment of individuals. In contrast to what it conceives of as the cold and quasi-scientific impartialism of modern moralities, it actively promotes the interests and welfare of women and girls (Gilligan 1993). In the context of research, a focus on women's issues, enacted by female physicians, often embodies an overtly democratic set of aims intended to further female interests in the design and promotion of good healthcare.

One might see the shift from early visual gender verification tests, which were humiliating – even degrading – to women, to tests for hyperandrogenism as an indication of more respect for female athletes with ambiguous genitalia (Heggie 2010). Is a feminist ethics necessary here or can a rights perspective, or indeed a deontological one, do sufficient ethical work? The shift is certainly an improvement even though it leaves other questions open regarding why sexuality should be determined by a biological marker. This is the kind of objection that feminist ethicists among others (Karkazis *et al.* 2012; Sailors *et al.* 2012) have made of the current practice for gender verification in international sport.

Nevertheless, the particularism of virtue and feminist positions has left them vulnerable to the charge of over-flexibility or inconsistency. How do we know which virtues ought to be elicited by which situations and persons therein? Moreover, is it true that different societies in different epochs have valued different kinds of traits? Virtue theory, it is said, under-determines right action and engenders inconsistent or unequal approaches. It gives little guidance, it is said, to the physician who wonders whether they should be honest with the injured athlete's employers, or compassionate with respect to their athlete as a patient.

A note about intuitionism, subjectivism and relativism

It is often held that, when deciding upon courses of action, and finding oneself in a quandary, the only or perhaps ultimate recourse is to one's intuition. Clearly, it is thought, there are no facts to help settle the matter, and there will always be some unreasonable clash of opinions, so the sole court of appeal is to the working of one's heart and mind (so to speak). It could be said that the foregoing theories were designed precisely to rule out the kind of inconsistency or (worse) simple capriciousness, which the resort to intuitionism is thought to entail. Within nearly all ethical theories the appeal to one's intuitions is thought to be problematic (even heretical) since one's intuitions are hostage to all manner of biases based upon one's upbringing, class, educational background and so on. So the intuition as to the wisest course of action for one may be another's worst nightmare and vice versa. Equally, there appear to be no checks and balances within intuitionism that call into question the consistency of one's intuitions from one day to the next, or on any given issue. Inconsistency, contradiction and worse are endorsed (it is said by critics) by the appeal to mere intuitions. This is not to say that one's intuitions are necessarily awry but rather that, alone, they offer an all-too-fallible guide to doing the right things and being the right kind of person.

In discussions of what is acceptable and unacceptable, right or wrong, in practice one often hears the labels 'subjective' or 'relative' – especially when differences of views emerge as to how best to proceed in problematic cases. So, often, one person will condemn another's judgement as subjective, or say of that view that it is no better than an alleged opposing view, both being relative to some other reference point (ability, age, class, ethnicity, gender, sexual preference, and so on). Such protestations are often used as a way of preserving one's own preferred position in the face of un/reasonable opposition. On other occasions one

makes claims regarding subjectivism or relativism as a kind of stopper or a trump card: in this way they seem to foreclose rational argument. Thus, 'It's all a matter of opinion' is the commonest subjectivist exhortation. For the relativist, the popular refrain is that X or Y is simply foisting the norms of their group onto others, which is in some way (it is assumed) undemocratic or immoral.

It should be clear that there is little positive about subjectivism or relativism in ethics. Each of the theoretical positions above gives a rational guide to ways of acting and living that can at least be called 'principled', even though the foundational principles or constructs of each are contested. Subjectivism and relativism give us no substantive reasonable grounds for ethical preference over competing options. They simply stop the debate. This does not license riding roughshod over the views of others whether as individuals or groups. Respecting opinion is one thing, rationally endorsing it another. It should not, however, be concluded from this that all intuitions are ethically useless: far from it. Often our intuitions precede our rational deliberation. Something *feels* as if it is not right, but we cannot put our finger on it. Or we feel shameful about a certain action but are not sure why.[1] This is to say, however, that in ethical dialogue we need to consider what reasonable justification exists for difficult practices, persons or policies.

In recent years, the idea that ethics in medicine (and thus sports medicine by extension) must be principled has taken on a particular shape within the writings of two North American bioethicists. Given the widespread advocacy of their position it is worth spelling it out in some detail.[2]

Principled theories and composite principled ethics

It is important to note that the broad theoretical positions sketched above do share some important resemblances: each theory aims toward settling a course of conduct in a manner that is 'objective' as opposed to 'subjective', both in the sense of being egoistic and/or unprincipled.

In the field of bioethics, the idea of a principled ethic has achieved widespread use and, perhaps it is fair to say, a certain dominance in medical and healthcare practice. It is not sufficient simply to describe or label this approach as a 'principled' approach (as it is sometimes referred to by way of shorthand), since we can think of each of the theories above as principled. In utilitarianism, the principle is that of maximizing good consequences. In deontology, the guiding principle is that of one's duty. In rights theory, the guiding principle is that of protecting and promoting the interests of persons. We could then say that each theory is principled, while the principles each theory espouses do not necessarily cohere, and very often appear to clash.

The most famous and widely applied composite principled approach in applied ethics emerged largely as a response to publicly aired conflicts and problems in medicine during the 1960s and 1970s in North America. The response was formulated in *The Belmont Report* and is given its most sophisticated expression in Beauchamp and Childress' text *Principles of Biomedical Ethics*. While the

book was published in 1978, it is now in its seventh edition (2013) and it has evolved in response to rigorous and often vehement criticism of its approach. Beauchamp and Childress developed an approach to ethical reasoning and decision making comprising four moral principles that can be brought to bear on moral problems in medicine – though clearly they might be thought, at least on the face of it, to apply to all health research too. The basic principles operate as a framework rather than a method (Beauchamp and Childress 2009). Indeed the authors talk of clusters or principles that serve as guidelines for professional ethics:

1 *respect for autonomy* (a norm of respecting the decision-making capacities of autonomous persons);
2 *non-maleficence* (a norm of avoiding the causation of harm);
3 *beneficence* (a group of norms for providing benefits and balancing benefits against risks and costs); and
4 *justice* (a group of norms for distributing benefits, risks and costs fairly).

(Beauchamp and Childress 2001: 12)

It is notable that the FIMS (International Federation of Sports Medicine) Code of Ethics makes reference in its general considerations to a version of the first three of these principles (International Federation of Sports Medicine 2013). I shall briefly outline each of them before moving to three potentially problematic scenarios for a 'principled' event physician.

Respect for autonomy is central to medical practice. When in former days trust in medical practitioners was absolute, it was not uncommon for the patient to think that the physician always and necessarily knew what was best for the patient. 'Trust me, I'm a doctor' was an everyday – and uncontested – expression. In contemporary times, against a background of paternalistic interference by physicians, it has become a widely shared norm that the physician must request permission to treat the patient, and that in so doing the physician must seek their authorization as to any treatment plan, which is aligned to the *patient's* conception of what is good for them and not necessarily for the physician. Many would argue more strongly that this is the foundational principle of the principles approach (Gillon 2003). This can be a difficult principle to apply for the physician since she/he is armed with expertise that the patient typically lacks (though this is increasingly changing), and can in turn lead him or her to know what is in the best interests of the patient. Respecting autonomy, however, entails that the physician must give priority to the patient's own conception of what is good for them in their own lives. Acting in an autonomy-respectful way that is contrary to the patient's interest in their own health may be among the most difficult thing for physicians to do. Nevertheless, the patients' right to shape their own lives – so long as they do not harm others in the commission of those choices – is a longstanding right in all democracies. This principle is the ethical foundation of informed consent and the duty of the physician to tell the truth to the patients, so that they can form their own plan of action.

As noted above, one important caveat here is that while respecting autonomy is of the highest ethical importance in medical ethics, there are populations such as children or the temporarily incompetent (whether through concussion or some other injury) who may not qualify as rationally autonomous. They may be thought, however temporarily, to be incapable of forming a rational picture of their own good. In this case, being non-autonomous (or at least lacking full autonomy), the physician is not necessarily obliged to respect their patient's wishes. Therefore, it will be among the first tasks of a physician to evaluate their patient's capacity to make decisions regarding their treatment.

Secondly, the principle of beneficence directs physicians to aim at the patient's good or welfare. In the care of their patient, the physician must not privilege their own interests above those of the patient. Those who are in need of medical intervention are typically in a state of vulnerability and it would be improper for physicians to use this condition to pursue their own agendas. The principle of beneficence explains in a large measure why physicians are trusted (there are, of course, other reasons such as their willingness to maintain patient confidentiality, and truth telling, which weave respect and beneficence together) and ought to interlock with their autonomy-respectful treatment of the patient.

Thirdly, and closely connected to the former, if the physician treats the patients in accordance with their autonomous wishes, aiming at their well-being, she/he will not harm the patient. This is what non-maleficence, the principle that the physician will not harm the patient in her or his practice, amounts to. This principle extends into other areas of professional practice that are not obvious. Medical science and technology progress at a rapid rate, and it is a duty of the physician to maintain an appropriately up-to-date knowledge base in case previous best practice comes to be understood as contra-indicated. It also means that there will be limits to the kinds of treatments that can be offered. One interesting case arises in the use of treatments that are simply designed to temporarily restore functional ability but that will mask ongoing problems or even exacerbate them, thus potentially harming the patient.

Fourthly, the principle of justice demands that all physicians are fair in their dealing with patients. This principle can extend over the lifetime of treatment with the patient. It also acts crucially as a norm between patients. Its most common application is in the allocation of resources across patients. This does not entail that we treat all patients in an identical way. To the contrary, the formal principle of justice says that physicians must treat equals equally and difference differently. So, the patient who is critically injured takes precedence over the trivially injured one. The patients are treated differently but in a just or fair way. There are several ways in which just actions can be justified: we may allocate resources (such as the event physician's time and expertise) according to clinical need, according to who deserves it the most, according to the social utility of the respective patients, or according to some right, say, based on who has waited longest, or indeed on who can or cannot afford to pay for treatment. Determining which criterion should dominate is not always straightforward.

Beauchamp and Childress (2001, 2013) argue that these basic principles are to be found in most classical ethical theories, such as those I have introduced above,

as well as in everyday conceptions of morality. Respect for autonomy is central to deontological medical ethics in terms of the gaining of informed consent, and to how that theory might serve to uphold non-maleficence, while it is clear that utilitarianism is centrally concerned with beneficence in terms of the widespread promotion of welfare. Nevertheless, utilitarianism has historically been criticized for being rather unconcerned with justice or individual rights and duties at the expense of securing the greater good, while deontology has typically been thought to be silent on issues of balancing benefit and harm when duties are owed to many and resources are scarce. There is then some strong justification for Beauchamp and Childress' claim that their basic principles are already to be found in common morality, but applying them is always a matter of wise practical judgement, which is both a product of good role modelling, good advice and guidance, and – most critically – experience guided by these factors.

To be sure there are weaknesses in the approach they offer (recognizable by anyone familiar with the general criticisms of deontology and utilitarianism noted above). Too often their framework is employed in a mechanical way. One recent critic has asserted that 'anybody who is ethically obtuse enough to need a checklist of principles would not be capable of interpersonal relationships of any complexity, and certainly should not be practising medicine' (Cowley 2005: 4). That a dumbed-down version of their approach is widely employed by healthcare professionals and some bioethicists is regrettable, but Cowley's remark makes the point too boldly. Respecting patient autonomy, aiming towards their good as opposed to their harm, and acting justly are considerations that have wide application. Even though these general considerations are in tension with one another, and there is no obvious dispute resolution mechanism, they are an exceptionally useful heuristic to the sports physicians. To adopt a metaphor from the Austrian philosopher, Ludwig Wittgenstein, perhaps we should think of them as a kind of ladder – something we have no use for once we have climbed up and moved on to more complex, sometimes theoretically informed, considerations.

Ethical theories, casuistry and sports medicine ethics

Having offered a sketch of ethical theories above, and reasons as to why they are preferable to positions such as intuitionism, relativism or subjectivism, it is now necessary to move from general to more specific ethical questions. Sports physicians will always be faced with particular ethical questions in their clinical practice. The question for them is not therefore 'What ought I do generally speaking?' but 'What ought I do in this instance, to serve the best interests of this patient?' This means that they will be confronted by situationally specific ethical issues, and we will need to *apply* ethical judgements in order to proceed with appropriate actions. Is it possible, however, to usefully employ ethical theorizing to help us penetrate the complexity of the human situation to generate a rationally consistent response to real-world ethical problems?

Throughout the world, departments of philosophy offer courses in medical ethics, research ethics, environmental ethics, business and professional ethics, and

so on. Yet, based upon my homespun research, few sports medicine courses have an ethics component. Why is this so? Advances in medicine have raised perplexing questions about the definition of death, questions that need to be answered when applied to practical situations of organ transplantation. With regard to sport, questions of genetic ethics, of long-term welfare, of the use of novel treatments, of assisting choices for pediatric athletes, and so on arise every day. How is the sports physician supposed to chart these waters in ways that are defensible and coherent?

To advocate a 'hands-off' approach to normative issues arising in sports medicine would constitute not only an abnegation of the traditional goal of moral philosophy (i.e. of understanding the nature of the good life), but also an unacceptable disengagement from important ethical issues in the professional life of sports physicians. The disengagement of sports physicians' course planners should be thought of as culpable. Veatch (1989) made the point a quarter of a century ago that there is no good reason to assume that being knowledgeable in medical science will make one expert in choosing wisely among conflicting courses of practical actions of ethical import. Conversely, philosophers, too, must engage with physicians in order to develop nuanced, insider understandings of clinical practice and policy. Such engagement is driven, with eloquence, by the promptings of the feminist ethicist Baier who asks:

> Can we approve of a division of labor in which the theorists keep their hands clean of real-world applications, and the ones who advise the decision makers, those who do 'applied ethics', are like a consumer reports service, pointing out the variety of available theories and what costs and benefits each has for a serious user of it? Does the profession of moral philosophy now display that degeneration of a Kantian moral outlook that Hegel portrays, where there are beautiful souls doing their theoretical thing and averting their eyes from what is happening in the real world, even from what is happening in the way of 'application' of their own theories, and there are those who are paid to be the 'conscience' of the medical, business or legal profession, what Hegel calls the moral *valets,* the professional moral judges?
>
> (Baier 1985: 236)

If one must get one's hands dirty, so to speak, in what manner is this best done? I have already said that sports medicine ethics will be enhanced by theorized understanding but I have eschewed a top-down, or theory-driven, approach. Rachels and Rachels (1986) once described it as the 'straightforward application model'. Ethics in real-life settings cannot simply be a case of adding theory to situation and computing or deducing the ethical solution with the help of moral philosophical theory. Rather, it is said by some that we should conceive of the thrust of ethics from the precisely opposing direction: not from theory to practice, from the general to the particular, but rather from the particular to the general. Particular situations are as always situated in social, cultural and historical milieu, and responses to those situations are crucially affected by the contingencies of

those who find themselves there. Some will feel that acknowledging the particularity of situations is flirting with relativism. Those strongly committed to any of the theories above, or indeed the four principles approach, will use the term 'casuistry' to characterize this approach. In calling a line of reasoning 'casuistic' they will intend a term of abuse to the reasoner. Nevertheless, there are arguments in favour of understanding researchers as attempting to construe ethical issues in research in a contextually or situationally sensitive way. Casuists will typically reason for the rightness or desirability of a given course of action (or its converse) by way of analogy, or by appealing to previous precedents with relevantly similar particulars (Jonsen and Toulmin 1988). Arras (2001) notes, this way of working lacks the parsimony and elegance that are taken to be the hallmarks of scientific theory and moral theories like utilitarianism or deontology. It is precisely this anti-scientific picture of ethics that Williams (1985) spoke of when he remarked that whatever kind of theory ethics could yield, it could not be like that of a scientific theory. Its history lies in the ancient art of rhetoric. This method is much more likely, Arras (2001) argues, to appeal to a wider public since it will not have alienated those who object to the preferred foundational principle: respect, rights or utility. He writes: 'This kind of multifaceted rhetorical appeal typically yields moral conclusions that are admittedly apodictic; but the casuist argues, again following Aristotle, that this is the best we can hope for when arguing about particulars' (Arras 2001: 110).

It seems to me that a casuistic approach is the best approach to address the considerable variety of ethical problems that arise in and for sports medicine. Consensus on difficult issues, such as whether a player ought to return to play before being fully healed, should not be reached without digging down to foundational principles that not uncommonly clash at their deepest level. In pluralistic settings casuistry can allow a plurality of considerations and voices without developing a practical mêlée or indeed a theoretical impasse. Casuistry is certainly not exempt from criticisms. By looking back to precedent or paradigm, it has been argued that casuistry does not have the resources to cope with new scenarios. It could also be argued that a certain amount of conservativism or, worse, uncritical acceptance of the status quo, is inherent to casuistic thinking via its strong appeal to previous cases. This objection cannot be fully refuted. Yet, if we accept that all approaches are open to critique, it may well be that a casuistic approach, which begins from particulars and moves out to the general considerations of research ethics – found in codes of conduct, committees' rulings, and institutional guidance – is probably the best we can hope for.

Accepting a casuistic approach does not mean that we necessarily place our judgements and rulings on a slippery slope to relativism. It simply means that we prioritize the importance of individual circumstances in their particularity; that we accept that principles and norms may have different weightings in different situations; and that we acknowledge that codes of conduct may have guidelines that are inappropriate in certain cases. This is precisely why I commenced this introduction with a quotation from Montgomery regarding medical knowledge and clinical judgement. It would be easy to think of ethics as the icing on the cake

of sports medicine, where the central ingredients would be anatomy, genetics, pathophysiology, and so on. While these are indeed essential ingredients to understand the working of the human body, it would be a mistake to relate to ephemera the broader considerations.

The structure of this book and the selection of its content

The essays that comprise this book were selected from a period, 2003–13, during which I authored and co-authored many essays on a variety of topics emerging from the triplex of ethics, medicine and sport. It will be clear that my view of the way that sports medicine ethics might best be developed is through collaborations that are both multi-disciplinary and multi-professional. If we are to do good normative ethics we will need good evidence as well as good argument. While philosophers specialize in the latter, they are rarely capable of conducting social scientific studies to generate data, neither do they have deep insight into clinical practice – unless they trouble themselves to go and talk to practising physicians and sports medicine researchers. These academic and professional commitments have underwritten my selection of the articles that comprise this book.

The essays in Part I address topics – especially those concerning the nature and goals of medicine – that are all too often taken for granted. This part in particular focuses on the fundamental questions of sports medicine as it is and as it ought to be. Having taken a general overview of sports medicine and its ethical aspects, I consider in Part II specific issues that arise in professional ethics. These concern very widespread problems concerning competence, confidentiality and trust. I also make clear the heterogeneous nature of governance in sports medicine and some of the potential clashes within and between sports medicine organizations. It is also argued that the sports physician owes her or his first duties to the athlete patient. In particular, these essays should give food for thought for clinicians, especially for those sports physicians who are employed by third parties such as professional sports franchises.

While Part II is most explicitly comprised of essays in applied ethics, Part III reverts back to conceptual issues entailed in sports medicine. Medicine has traditionally been centrally devoted to the relief of suffering, but this concept is far from straightforward as is its antonym wellbeing. Both are the source of theoretical confusion and are assumed in the description of fundamental aspects of sports medicine. The conceptual and ethical aspects of a much-neglected condition in sports medicine, eating disorders, are also discussed here. The failure of general medicine to address these conditions is widely perceived, but to my mind it has played far too little a role in the education of sports physicians.

No book on the ethics of sports medicine would be complete without some discussion of ‘doping’, or the illicit use of prohibited substances and methods as the World Anti-Doping Agency calls them. The essays included in Part IV attempt to chart the ethical and legal aspects of doping both generally, and in the case of adolescent athletes more specifically. These issues are discussed alongside a critical query as to whether sports medicine has not played too prominent a role in

our thinking about the ethical aspects of anti-doping policy, and brought with it a tendency to think of doping and anti-doping in exclusively medico-scientific ways.

Finally, in Part V I address issues that are at the vanguard of medical practice and research in sports medicine: genetic technology and genetic ethics. While it is easy to be drawn into discussion of the inevitability of genetic enhancement in elite sports, I discuss how we should better understand the prospects of genetic medicine – in a variety of ways including testing, in injury and illness prevention, and of course enhancement. In particular I discuss the ethically complex nature of genetics for sports medicine – the good, the bad and the ugly so to speak. I try to do this in ways that are resonant with earlier discussions that take us back to the heart of sports medicine as an ethical enterprise.

Concluding remarks

Achieving continuity of argumentation, or coherence among the positions articulated and defended in a book that is the product of so many collaborations, is not easy. I leave it to the reader to decide how well or badly I have done this. Even if there is in places the odd tension, I am content to let it slide on this occasion. What I have felt more important is to mark what I take to be a challenging and important terrain that has been neglected for too long. I do *not* claim to have somehow invented or pioneered the subject of sports medicine ethics single-handedly. The references to others' scholarship and research here is extensive enough to disavow any such pretension. The work does mark, however, the product of a decade of scholarship in sports, medicine and ethics not just in terms of published essays, but also – and importantly – in dialogue with colleagues in sports medicine at conferences and in bars where they have been kind enough to indulge and educate me.

Every one of these colleagues, supporters or critics alike, have reiterated the importance of ethics in sports medicine. Yet precisely what they mean by this, and what the relations between medicine, sports and ethics might be, is seldom made clear. In this book, and in various ways, I have tried to show how these terms are contested within a range of families of theories. I have argued in this introduction that such theories are necessary to combat subjectivism or relativism in our approach to ethical issues in sports medicine, indeed regarding the ethical nature of sports medicine itself. Sports physicians should wish their judgements not merely to be acceptable to the athlete patient, but to be coherent, consistent and, if not praiseworthy, then certainly above reproach or blame. This necessitates the adoption of reason in systematically thinking through the goods, harms and benefits of sports medicine both in terms of the desired goals and the methods and processes used to achieve them. The clearest way of doing this is to consider ethical decisions and dispositions within a framework of established theories, though not slavishly applying one at the expense of others. I have prescribed no *particular* method or theory here. Instead readers are invited to familiarize themselves with very widely used ethical frameworks, and to consider how these

can inform, in a casuistical way, their understanding and actions. If nothing else, I hope to have stirred the pot a little and given food for critical reflection on the nascent but increasingly problematic triplex of sports, medicine and ethics.

Notes

1 In other writings I have explicitly defended a virtue ethical account of sports (McNamee 2008), and were I to do so here I would certainly show how intuitions and emotions are often moral, powerful sensitizers to good and evil. Moreover, doing the right thing and avoiding the wrong, if it is to be admirable, often entails feelings of nobility or revulsion in response to dignified and undignified courses of action. Something like this idea is the moving spirit behind Chapter 2 on the moral topography of sports medicine.

2 Although I am not wedded to their theoretical framework, Beauchamp and Childress' theory is a particularly useful educational tool to my mind. I have taught it for many years and have attempted to show what it would look like in clinical practice for sports physicians in McNamee (2012b).

Part I

Sports medicine as an ethical practice

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2 Why sports medicine is *not* medicine[1]

Introduction

Sports medicine as an apparent sub-class of medicine has developed apace over the past 30 years, although its heritage might be traced back in one form or another to ancient Greece. Its recent trajectory has been evidenced by the emergence of specialist international research journals,[2] standard texts,[3] annual conferences,[4] as well as academic appointments and postgraduate courses.[5] Although this field of enquiry and practice lays claim to the title 'sports medicine', this chapter queries the legitimacy of that claim. Depending upon how sports medicine and medicine are defined, a plausible-sounding case can be made to show that sports medicine is not in fact a branch of medicine. Rather, it is sometimes closer to practices such as non-therapeutic cosmetic surgery.

The argument of the chapter is as follows. It begins with a brief statement concerning methodology. We then identify and subscribe to a plausible defining goal of medicine taken from a recognized authority in the field. Then two representative, authoritative, definitions of sports medicine are discussed. It is then shown that acceptance of these definitions of sports medicine generates a problem in that if they are accepted, no necessary commitment to the defining goal of medicine is present within sports medicine. It seems to follow that sports medicine is not medicine. In the final part of the chapter a critical response to that conclusion is presented and rebutted. The response is one that rejects the identification of the defining goal of medicine upon which our argument rests.

Methodological point

Before commencing the discussion proper it is important to make explicit a methodological commitment presupposed in the chapter. The chapter discusses a 'class inclusion claim'; specifically the claim that sports medicine belongs within the class of medicine. It is supposed here that membership of a class requires instantiation of the attributes which are essential for membership of that class. Some attributes will be necessary but not sufficient conditions for membership of a class. Hence, 'being a fruit' is a necessary condition for membership of the class of apples, but it is not a sufficient condition since an orange, for example, is a fruit

but not an apple. It will be claimed below that for a practice to fall within the class of medicine it is necessary that it possess the attribute of aiming to relieve suffering. This goal is a necessary condition of medical practice. Practices which do not aim at this goal are not medical. As will be seen, since the goal of relief of suffering is not a necessary goal of sports medicine, it can be contended that it cannot be included in the class of practices which comprise medicine.

What is medicine?

Suppose we agree with Porter (2004: ii, 1999), in his authoritative historical accounts of medicine, that medicine originated as a response to human suffering, and that this remains one of the central, defining goals of medicine (see also Cassell 2004; Edwards 2001). The term 'defining goals' can be understood as follows. For x to be a defining goal of medicine, any branch of medicine must involve the pursuit of x. In other words, pursuit of x is a necessary condition for a practice to count as medical. According to Porter, the relief of human suffering is such a defining goal. Acceptance of this claim entails that if a practice does not necessarily involve the pursuit of that goal, it is not medicine. Pursuit of the goal of relief of suffering can be evidenced in many ways, for example, by responding to medical crises, as in emergency care; or by preventive measures such as dietary advice and immunization programmes. The former interventions aim for the relief of suffering in an immediate, direct manner; the latter do so less immediately, and less directly, but still count as medical since they seek to prevent the suffering of the patient/client. If Porter's characterization is correct, any practice that does not necessarily aim at relief of suffering cannot count as medical. For any practice to count as medical it must exhibit this necessary goal of medical practice: the relief of human suffering (Engelhardt 1996). Having prepared the ground, so to speak, for a comparison of sports medicine with medicine, let us now move on to consider the former.

What is sports medicine?

As mentioned above, the concept and practice of sports medicine have emerged over the past 30 years or so. Consider two definitions of it, the first from the British Medical Association (BMA), the second from a well-known text in the field. The BMA definition runs as follows:

> Sports medicine. The medical specialty concerned with assessment and improvement of fitness, and the treatment and prevention of disorders related to sports.
>
> (British Medical Association 2007: 522)

The references to treatment and prevention sit unproblematically within the domain of medicine as their rationale can be subsumed within the broad goal of relieving human suffering. But note the reference to 'improvement of fitness' in

the early part of the definition. It is plain that one can be fit yet be in such a state that one's fitness could be improved. On an uncontroversial, lay understanding of fitness, an already-fit person could have their fitness improved. A person who can jog a mile in ten minutes could have their fitness improved to enable them to run a mile in nine minutes. A medical definition of fitness coheres with this lay conception of it. The BMA defines fitness thus: 'The capacity for performing physical activities without exhaustion'(British Medical Association 2007: 233). By this definition also, one can clearly be fit yet have one's fitness improved in some way. So the fact that one is in a state such that one's fitness could be improved, need not entail that one is not in fact already fit. Moreover, the fact that one is in a state such that one's level of fitness could be improved in no way implies that one is ill or that one has any kind of health problem. Given this, it is evident that the attributes of sports medicine identified in the first part of the BMA definition need not involve actions directed at the relief of suffering. Moreover, it is also evident that the attributes of sports medicine identified in the latter part of the BMA definition simply coincide with those of medicine as traditionally conceived; that is, in terms of having the goal of relief of suffering. So, the attributes of sports medicine identified in the latter part of the definition appear to lie within medicine as this is traditionally conceived. These attributes of sports medicine simply locate it within the more general category of medicine. But the attributes referred to in the early part of the definition include activities which need not be directed at ill people, nor need they share, with medicine as traditionally conceived, the goal of relieving suffering. For as the early part of the definition makes plain, interventions which enhance fitness count as interventions within sports medicine. Therefore, at least according to this first definition, sports medicine involves acts which render it part of medicine (treating injuries etc.), but also acts which do not share the goal of medicine as traditionally conceived. If anything, it seems reasonable to claim that what passes as sports medicine is closer to those practices such as areas of cosmetic surgery that are performed for no therapeutic purpose.

These considerations on sports medicine suggest, then, that it might not legitimately fall within the category of medicine. To see this, consider the following argument. As noted, a defining goal of medicine is the relief of human suffering. In so far as sports medicine shares that goal, it falls within the category of medicine. But sports medicine also has goals which fall outside that defining goal of medicine. Such goals include the improvement of fitness and other enhancement of performance. Such goals are not medical goals. Therefore, sports medicine overlaps with medicine when it is involved in the relief of suffering. These therapeutic activities within sports medicine match the activities within medicine more generally. But where sports medicine seeks to go beyond relief of suffering and promote enhancement, it is not medicine. Thus, the practices of sports medicine either are subsumable within the practices of medicine, or exceed these. Where they are subsumable they are simply medical practices, where they exceed them, the practices of sports medicine lie beyond the sphere of medicine. Such interventions are not medical interventions. It is reasonable to suppose that

the distinguishing attribute of sports medicine – what distinguishes it from medicine per se – is its commitment to the goal of enhancing human performance. But this goal, distinctive of sports medicine is not essential to medical practice. So the claim that sports medicine is medicine is jeopardized since it lacks a defining goal of medicine. Consideration of this first definition, then, makes it seem as though there is no such distinctive branch of medicine as sports medicine. Perhaps the definition is misleading? Consider a more exhaustive definition.

A more exhaustive definition of sports medicine

A more comprehensive definition of sports medicine is characterized as follows in a standard text on the topic:

> [Sports medicine is a] branch of medicine which is concerned with the welfare of athletes and deals with the science and medical treatment of those involved in sports and physical activities. The objectives of sports medicine include the prevention, protection and correction of injuries, and the preparation of an individual for physical activity in its full range of intensity […] Recently there has been an emphasis by some practitioners on the possible contribution of medical science to improving athletic performance.
>
> (Kent 1994: 29–30)

Suppose, as suggested above, that medicine is understood as the practice of a defining goal, which is to relieve human suffering. Consider the second sentence of the definition quoted above. This contains a statement of the goals of sports medicine. The goals referred to in the first part of the sentence can reasonably be claimed to coincide with the goals of medicine generally, as it is traditionally conceived (Cassell 2004; Porter 2004). Specifically, these include the prevention of injuries, and the protection from injury. Such goals aim at relief of suffering. Prevention of injury is one way of preventing human suffering. In addition to the prevention of injury, we might add the reparation of injuries when these occur in the context of sport as a goal of sports medicine. Techniques developed within sports medicine that hasten the healing response to injury such as hyperbaric chambers (Babul and Rhodes 2000; Ishii *et al.* 2005), or cooling treatments (Hadad *et al.* 2004), also count as instances of sports medicine. If medicine is thought of in terms of an enterprise, a necessary goal of which is to relieve human suffering, plainly devices and techniques that hasten healing sit comfortably within it. So the first part of the second sentence in the definition given above characterizes sports medicine in a way which renders it subsumable within the more general category of medicine. If medicine as an enterprise is defined in terms of the goal of relieving human suffering, it seems true that sports medicine, as described so far, sits comfortably within that enterprise. This is because sports medicine as so far described shares a defining goal of medicine.

Consider now the latter part of the second sentence. Here there seems to be some aim to enhance the performance of sports persons. The ‘preparation’ of such

individuals may include provision of dietary advice, dietary supplements and specification of a training regime. The purpose of all this being to ensure that the sports person – an athlete let's say – performs better than she would have done had she been deprived of the input from practitioners of sports medicine. So this description of sports medicine seems much less obviously to connect up with the goal of relieving suffering. There is no suggestion that the potential athlete need be ill or suffering in any sense, nor have any kind of health problem in order to warrant the attention of the sports medic. The reference to improving or enhancing performance that is present in the latter part of sentence two, is stated explicitly in the last sentence of the definition. Here any attempts to restrict the concerns of sports medicine to relief of suffering are jettisoned.

Hence, consideration of two influential definitions of sports medicine suggests that the term 'sports medicine' may denote an empty category, a class with no content. There is no such distinctive subclass of medicine. The very attribute which is distinctive of it (its commitment to enhancement) prohibits its inclusion within the class of medicine. Having set out this argument, we now turn to anticipate a likely objection to it. As will be seen, it is an objection that we think can be overcome, and the original argument sustained.

Objection

A likely objection to the line of argument just developed may focus on the concept of health. Against what was claimed above, it may be proposed that a necessary, defining goal of medical interventions is not the relief of suffering, but the maintenance and promotion of health. Engelhardt, for example, casts a fundamental goal of medicine in these terms: '[serving] the health care needs and desires of individuals' (Engelhardt 1996: 293); no reference there to 'relief of suffering' – explicitly at least. Once this link between medicine and health is illuminated, a certain openness inherent in the concept of health can then be exploited. The openness permits a range of interpretations of what is indeed meant by 'health'. Here is one celebrated definition from Seedhouse (see also Nordenfelt 1995; Fulford 1989):

> A person's optimum state of health is equivalent to the set of conditions which fulfil or enable a person to work to fulfil his or her realistic chosen and biological potentials. Some of these conditions are of the highest importance for all people. Others are variable dependent upon individual abilities and circumstances.
>
> (Seedhouse 2001: 61)

For present purposes the most important sentence in this definition is the last one. It suggests a variability in the concept of health, which is sensitive to an individual's situation. The general proposal Seedhouse makes in the definition is that one is healthy when one has the conditions satisfied which enable one to achieve one's potential. As the last sentence indicates, there may be variation across individuals

as to what their potential is. For example, due to the physiological advantages which the cyclist Miguel Indurain possessed, he had the potential to become a five-times winner of the Tour de France. The UK cyclist Chris Boardman bemoaned his lack of such natural advantages and put his failure to win the Tour down to these – in spite of having a very successful cycling career. If, following Seedhouse and others, health is thought of in terms of laying down foundations for achievement of one's potential, it seems to follow that a physician who helps Indurain, for example, fulfil his potential to be a great cyclist is indeed practising medicine. For such a physician is aiding Indurain's pursuit of health, where this involves pursuit of Indurain's 'realistic chosen […] potential' (ibid.). So according to the objection under discussion: if the defining goals of medicine include the maximization of health; and if health has the kind of relativity to individuals which is present in Seedhouse's definition of it; work to enhance sporting performance beyond normal limits is indeed medical work, medical practice. It follows, therefore, that sports medicine really is part of medicine and the argument set out in the first part of this chapter is flawed.

Rebuttal of the objection

The objection just made claims that a defining goal of medicine is not the relief of suffering, but the maintenance and promotion of health. So the practice of medicine need not involve relief of suffering. Against this, and in support of the conception of medicine described in part one above, it can be argued that the significance of health in the objection is dependent upon the relation of health to suffering. So, a proper, more adequate analysis of the claim that a defining goal of medicine is maintenance and promotion of health, will conclude that health is valued because suffering is disvalued; in other words, that we value health because when we are healthy we are not suffering (or could cease suffering at any time we chose to – say, if the suffering is voluntarily undergone). So the real significance of health should be cashed out in terms of its relation to suffering. Thus our response to the objection that the defining goal of medicine is maintenance and promotion of health, and not the relief of suffering, is to claim that the significance of health stems from its relation to suffering. When one is healthy, one is not suffering involuntarily. When one is unhealthy, one does suffer involuntarily.

We have a further, related, response too. As mentioned, the objection to the argument presented in our essay exploits a certain 'openness' in the concept of health. This openness generates a situation in which a claim that enhancing an athlete's performance could count as enhancing health. It could so count if the athlete's 'realistic chosen […] potential' is to have their performance enhanced in the way desired. What could be said against such an 'expansionist' conception of health? We contend that it is objectionable because it is far too permissive. Acceptance of it would entail the re-conception of certain practices as medical, in a way which is deeply implausible. For example, suppose playing the piano is a 'realistic chosen […] potential' of a person. The person thus seeks a piano tutor. The expansionist conception of health appears to imply that the piano tutor's

interventions count as medical ones insofar as they aim at enhancing the realistic chosen potential of the individual. Of course, it is possible to construct numerous examples of teacher–student relationships which do not properly count as medical, yet, given the expansionist conception of health appear to so count. For this reason, then, we reject the expansionist conception of health and sustain our original claim that sports medicine is not medicine.

Conclusion

In conclusion, having described the sequence of claims to be made in the chapter, we began with a methodological point concerning class membership, which constrained our discussion. Following a description of a defining goal of medicine, two definitions of sports medicine were discussed and compared with that defining goal. It transpired that acceptance that relief of suffering is a defining goal of medicine entails that sports medicine is not medicine. We then anticipated a likely objection; one disputing the defining goal of medicine upon which our argument rests. We were able to rebut the objection as seen above, and thus sustain the claim that forms the title of this chapter.

Notes

1 First appeared in *Health Care Analysis* (2006), 14(2): 103–9, with title 'Why sports medicine is not medicine', co-authored with Steven D. Edwards.
2 See for example: *American Journal of Sports Medicine*, *British Journal of Sports Medicine*, *International Journal of Sports Medicine*, *Research in Sports Medicine*, *The Physician and Sports Medicine.*
3 See Kent, M. (1994) *Oxford Dictionary of Sports Science and Sports Medicine*. Oxford: Oxford University Press.
4 American College of Sports Medicine, British Association of Sports Medicine, the UK Association of Doctors in Sport.
5 In the UK, courses at Bath, Cardiff, Glasgow, London and Nottingham were offered to students on the BMA's student website: www.studentbmj.com/issues/04/07/careers/282.php

3 Whose Prometheus?

Transhumanism, biotechnology and the moral topography of sports medicine[1]

Introduction

The rise of sports medicine to the apex of sports science is something that I believe has not been commented upon. There are hierarchies within hierarchies. Sports medicine sits over sports science, which sits in panoramic ascendancy over what I take to be the humanities of sport: history, literature, philosophy and theology. I wish, against that hegemony, to challenge some of the more self-aggrandizing possibilities of sports medicine. Its most recent incarnation is the image of 'genetically modified athletes'.[2] Recognizing limits is not, however, a prominent feature of modern medicine. Indeed it is sometimes extremely unclear where medicine ends and other social practices such as social care, welfare or education begin. (For an example of such conceptual inflation see Brülde 2001). If, however, this conceptual inflation spreads horizontally it effects a process widely referred to as the medicalization of everyday life. It is not the sheer spread of medicine that concerns me here, but rather its vertical ambition in transforming our very nature as humans. In a recent book, the American conservative bioethicist Leon Kass has written, somewhat polemically, that:

> human nature itself lies on the operating table, ready for alteration, for eugenic and neuropsychic 'enhancement', for wholesale design. In leading laboratories, academic and industrial, new creators are confidently amassing their powers, while on the street their evangelists are zealously prophesying a posthuman future.
>
> (Kass 2004: 4)

It is against this evangelizing and self-promoting backdrop that I wish to problematize the unfettered application of science and technology to the sphere of sports medicine. To do this I wish first to note elements of science derived from the English philosopher, politician and polymath Sir Francis Bacon from the sixteenth and seventeenth centuries, which survive and in some sense shape the hubris of modern biomedical science. Secondly, I wish to challenge the assumptions of transhumanism, an ideology which seeks to complete the merely 'half-baked' project of human nature (Boström 2005b). In response, I sketch out two interpretations of the myth of

Prometheus in Hesiod and Aeschylus, which can help us see aright the moral limits of sports medicine. I conclude with a banal reminder: we are mortal beings. Our vulnerability to disease and death, far from something we can overcome or eliminate, represents natural limits both for morality and medicine generally and sports medicine in particular.

Baconian science, biomedical technology and the perfection of the body

Though the ancient Greeks and, more generally, artists throughout history have had a deep and significant aesthetic respect for the perfection of the human form, the obsession with physical perfectionism arises as a moral imperative, as sociologists of the body (see for example Shilling 2005) have noted, with the increasing pervasiveness of modern technology. In the writings of Bacon, and also of Descartes, the impulse of experimental philosophy (conjoining the rational and the empirical) finds new expression in medical science. The allusion to the Baconian ideal itself belongs to Hans Jonas, whose railing against the hubris of medical technology prefigured much work in the fields of medical ethics and medical theology. Jonas wrote, as early as 1974, regarding the potential pitfalls of 'biological engineering'. Slightly, less rhetorically than Kass, he wrote that the biological control of man, especially genetic control, raises ethical questions of a wholly new kind for which neither previous praxis nor previous thought has prepared us. Since no less than the nature and image of man are at issue, prudence itself becomes our first ethical duty, and hypothetical reasoning our first responsibility (Jonas 1974: 141).

It will be clear that the presence of Greek myths, which raise in our imagination the proper limits of the human, cast a shadow of doubt on the uniqueness of the controlling aspects of modern biology or genetics. Despite offering two contrasting lenses with which to view biotechnology, my own preference is marked by a precautionary stance. Moreover, I will claim in the final part that there is no need for the generation of a new ethics; rather that the moral sources for such evaluations as the proper ends of medicine and sports medicine themselves go back at least as far as Plato. What is of particular interest, though, in the foundational drive for medical technologies in particular is one that fits with a very traditional conception of medicine as a healing art as in the relief of suffering. The telos of such technology and its initial, moral motivation is captured by Borgmann:

> The main goal of these programs seems to be the domination of nature. But we must be more precise. The desire to dominate does not just spring from a lust of power, from sheer human imperialism. It is from the start connected with the aim of liberating humanity from disease, hunger and toil, and of enriching life with learning, art and athletics.
>
> (Borgmann 1987: 36)

The relief of suffering is, of course, one noble end associated with medicine traditionally conceived (Porter 2002; Cassell 2004; Edwards and McNamee

2006). But that is not the object of my concern, nor typically those of sports medics associated with elite sports. The idea is captured brilliantly in Gerald McKenny's excellent book on bioethics, technology and the body, *To Relieve the Human Condition* (McKenny 1997). It is as if the fulfilment of science's quest for domination of nature was itself to culminate in overcoming human nature. Now, of course, the denial or denigration of human nature is not new: early behaviouristic psychology often included a claim that human nature was no more than a myth or a hangover from a pre-scientific age, and this ideology was given further impetus in the sociobiological movements of the 1980s. Nevertheless, modern science takes the body as an object in nature, capable of precise observation and minute description. The uses of science extend not merely to intervening in, but also to re-envisioning, the body. The rise of medical technology, however, opens entire new vistas for medicine as a social practice.

Technology in medicine and sports

It is easy to think of technology as a modern social practice and to assume a particular kind of technology (such as computer technology) to represent a paradigmatic example. Nye (2006) ties technology to tool-making but reminds us of the narratives in which our appreciation of those tools is rested. For example, in Herman Melville's *Moby Dick*, Queequeg, a South Sea harpooner visiting Nantucket, was offered a wheelbarrow to move his belongings from an inn to the dock. But he did not understand how it worked, and so, after putting all his gear into the wheelbarrow he lifted it on to his shoulders. Most travellers have done something that looked equally silly to the natives, for we are all unfamiliar with some local technologies. This is another way of saying that we do not know the many routines and small narratives that underlie everyday life in other societies (Nye 2006: 6).

This commonplace example is a reminder of the importance of locating our views of technology historically, but also brings to mind a less manipulative conception than the kind which those opposed to radical biotechnologies conjure up as counter-examples. The term 'technology' has a venerable past. It derives from the conjoining of two Greek words *techne* and *logos*: *techne* refers to the kind of skill (practical knowledge) involved in making things, while *logos* means a form of reasoning aimed at understanding the nature or form of things. Although we think of the term as a modern one, it was in fact first coined by Aristotle (Mitcham 1979) – but his meaning for it was the technical skills of rhetoric; literally the *techne* of *logos* (Kass 2002). It is not uncommon, however, in everyday talk to slide the concept of science together with the concept of technology. Indeed, in the UK at least, sports scientists very often conflate their activities with what should properly be called sports technology.[3] Today philosophers of science clearly distinguish theory generation (science) and its application (technology), though the distinction is rather lost in the natural scientific study of sport. We could imagine then, that the domains of medical and sports technology might simply be taken to include the theoretical knowledge,

practical knowledge and the instruments and products that bring about the ends of medicine or sports respectively. If this were acceptable, then their salient characteristic would be a 'means–end' structure. Technology might be thought of as the means utilized to pursue chosen ends. It would appear to follow, then, that technology is, in a sense, neutral. It is neither good nor bad in itself. Rather, its normativity is typically governed by the uses to which it is put. An example of this conceptualization is found in the recent literature on philosophy of technology:

> Technology in its most robust sense … involves the invention, development, and cognitive deployment of tools and other artifacts, brought to bear on raw materials […] with a view to the resolution of perceived problems […] which, together, allow [society] to continue to function and flourish.
>
> (Hickman 2001: 12)

An equally sympathetic account is to be found in the UN Convention on Biological Diversity where biotechnology is defined thus: 'Biotechnology means any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use' (Article 2, Use of Terms). Less authoritatively, and even more broadly, biotechnology can also be commonsensically defined thus: 'Biotechnology is the manipulation of organisms to do practical things and to provide useful products' (Wikipedia definition: http://en.wikipedia.org/wiki/Biotechnology). While such global definitions are useful as a starting point, it is important to note that they fail to distinguish ethically important characteristics of different forms of practice that fall under the headings 'technology' or 'biotechnology'. By contrast, then, a stronger line of criticism is found especially in continental European writers who have made problematic the assumption that technology is itself a neutral means to chosen (good or bad) ends. Mitcham (1995) gives an account of this history of technological scepticism in medicine (Kapp 1978; Desauer 1927; Ortega y Gasset 1941; Heidegger 1977) and also notes more fundamental criticisms of technology as ideology where technology, far from being the handmaiden of man, comes full circle to be its master (Marcuse 1964; Habermas 1971; Foucault 1988). Although not as radical in her writings as these latter philosophers, Lee helpfully marks the following distinction in the application of science in the form of technology whose goals are: (1) explanation; (2) prediction; and (3) control (Lee 2005).

It is the last of these aims that I want to pick up on in relation to any ethical evaluation of technologies. Nye, a historian of technology, arrives (far too swiftly for my liking) at a softer conclusion about the relations between technology and humankind. He writes: 'Stonehenge suggests the truth of Walter Benjamin's example that "technology is not the mastery of nature but of the relations between nature and man"' (Nye 2006: 7). Nevertheless, we find more classical sources that are to be interpreted less generously. Francis Bacon (1561–1626) is well known for his remarks on the development of scientific and technological methods whose aim would be 'to relieve man's estate' (i.e. of suffering/vulnerability), and likewise René Descartes (1596–1650) had wanted 'to use this knowledge […] for

all the purposes for which it is appropriate, and thus make ourselves, as it were, the lords and masters of nature' (Descartes 1637). Of course, as C. S. Lewis pointed out in his essay, 'The abolition of man', every time we hear the phrase 'mastery of nature' we ought to be alerted to the fact that it is some particular group that is doing the mastering for its own reasons and in the light of its own version of the good, rather than the good of humanity (whatever that might look like). Again, Lee distinguishes the types of control: (1) weak: avoid the occurrence; and (2) strong: prevent occurrence. And the facets comprising weak or strong control technological control of nature (or for my present concerns 'human nature') range from theoretical knowledge, through practical knowledge and skills, to instruments and products.

Notwithstanding these cautionary considerations, I will consider biotechnology and sports technology respectively to refer to those technologies deployed to meet the ends or goals of sports medicine or sports respectively. What forms, more specifically, might this technology take? The most obvious uses by sports scientists and sports medics might be instrumentation such as hypoxic chambers (to assist the fastest recovery times for soft tissue and bone injuries); gas analysers (to measure anaerobic contributions to exercise); and isokinetic strength testers or 'bod-pods' (to assess body density). Finally, the scourge of sports, many would say, falls into the category of 'technological products'. Most obvious here might be anabolic steroids or other doping supplements such as EPO or human growth hormone. Nevertheless, it is important to note that these products are often designed with medical therapies in mind. It is their use in the elite sports population that is problematic, not the nature of the products themselves.

What I want to do now is to step back a little from a discussion of the enhancement mantra that governs elite sports and some sections of what is called sports medicine and consider a broader and, to my mind, more problematic application of biotechnology to enhance human nature. It is an ideology that falls under the label 'transhumanism' (TH). (For a fuller account of the nature(s) of TH see Edwards and McNamee 2006.) Rather than a unified entity, TH constitutes a broad and heterogeneous group of thinkers who give technology a grander, Promethean, aim.

What (good) is transhumanism?

A range of views fall under the label of TH.[4] The most extreme is a view according to which TH is a project to overcome the inherent limitations of human nature. Examples of these limits, which most of us take for granted as part of the human condition, are appearance, life span and vulnerability to ageing, disease and so on. There is, however, a more extreme version of TH that sees the role of technology as one to vastly enhance both the person and his/her environment by exploiting a range of technologies including genetic engineering, cybernetics, computation and nanotechnology. Recruitment of these various types of technology, it is hoped, will produce selves who are intelligent, immortal etc. but who are not members of the species homo sapiens. Their species type will be ambiguous, e.g.

if they are cyborgs (part human, part machine). If they turn out to be wholly machines, they will lack any common genetic features with human beings. Extreme TH strongly supports such developments. Less extreme TH is satisfied to augment human nature with technology where possible and where desired by the individual. At present TH seems to command support mostly in North America, though there are some adherents from Europe (see the website of the World Transhumanism Association). On one level it can be seen as an extension of neo-liberal or libertarian thought transferred into biomedical contexts. This is because the main driver appears to be the valorization of autonomy as expressed in the economic choices of individuals. If certain technological developments enable greater defences against senescence, or if they can significantly enhance my powers of thought, speed and movement, then TH argues that anyone (as a competent consumer) should be allowed to obtain them – if they can afford them, of course. Sandberg attempts to give an ethical underpinning to this essentially political programme. He argues that we must consider 'morphological freedom as a right' (Sandberg 2001).

Before TH is considered to be the product of outlandish free thinkers who have enjoyed too much of certain medico-technological products themselves, we must consider that it embodies two aims that are widely thought to be valued in the West. These are: (a) the use of technology to improve the lot of humans (work in public health, e.g. construction of sewage systems, fluoride additives to water supplies to prevent dental decay and so on, is all work to facilitate this noble end that is shared with the entire medical enterprise); and (b) increased autonomy, such that the individual has greater scope in governing their own life plan. Moreover, proponents of TH say it presents an opportunity to plan the future development of human beings, the species homo sapiens. Instead of this being left to the evolutionary process and its exploitation of random mutations, TH presents a hitherto unavailable option, tailoring the development of human beings to an ideal blueprint. Typically educational, social and political reformers have been unable to carry forward their project with the kind of control and efficiency (it is said) that biologically driven technologies can.

Against transhumanism

One can ascribe to Ellul a certain prescience: without knowledge of ideologies such as TH, he pointed out in 1965 that the development of technology will lead to a 'new dismembering and a complete reconstitution of the human being so that he can at least become the objective (and also the total object) of techniques' (Ellul *et al.* 1967: 431). One possible consequence that can be read into the grander claims of some TH proponents is that, in effect, TH will lead to the existence of two distinct types of being, the human and the posthuman. The former are most likely to be viewed as some kind of underclass. It is worth pursuing this argument a little. It is said that 'we' have a 'self-understanding' as human beings. This includes, for example, our essential vulnerability to disease, ageing and death. Parens (1995), in reversing the title of Nussbaum's celebrated book *The Fragility*

of Goodness, captured this idea memorably when speaking of the 'goodness of fragility'. Suppose, however, that the strong TH project is realized. We are no longer so vulnerable, immortality is a real prospect. This will result in a change in our 'self-understanding'. This will have a normative element to it; most radically it may take the form of a change in what we view as a good life. Hitherto such a life as this would have been assumed to be finite, but now this might change.

Habermas' objection can be interpreted more or less strongly (Habermas 2003). The strongest interpretation is that any change in self-understanding is a morally bad thing. But this move is not a defensible one. Consider the changes in self-understanding that have occurred over the centuries: the advent of Christianity or Islam; the intellectual revolutions that preceded Copernicus; and Darwin. It does not follow necessarily that any particular change in self-understanding logically entails moral decline. There are many who would advocate that this constitutes not decline but rather moral progress.

There are, to my mind, more telling and less abstract arguments that can be marshalled effectively against TH. These concern, in the first place, a simple argument against inequality. The second relates to the unarticulated ends of TH. What is its telos? What do we enhance and why? Let us consider, albeit briefly, the first consideration. Rather than considering two species of humanity, we might (perhaps crudely) consider the two categories of economics: the rich and the poor. The former can afford to make use of TH while the latter will not be able to. Given the commercialization of elite sports, one can see both the attractions (for some) and the dangers here. Mere mortals – the unenhanced poor – will get no more than a glimpse of the transhuman in competitive elite sports contexts. There is, then, something of a double-binding character to this consumerism. The poor, at once removed from the possibility of choosing augmentation, end up paying for it by pay-per-view. The weak thus pay the strong for the pleasure of their envy. By contrast, one might see less corrosive aspects of this economically driven argument. Far from being worried about it, it might be said that TH is an irrelevance, since so few will be able to make use of the technological developments even if they ever manifest themselves. Still further, critics point out that TH rests upon some conception of the good. As seen, for one group of TH advocates, the good is expansion of personal choice. But some critics object to what they see as consumerism of this kind. They suggest that the good cannot be equated with that which people choose. With regard to the other kind of TH proponents, those who see TH as an opportunity to enhance the general quality of life for humans, critics point out that this again presupposes some conception of the good, of what kind of traits are best to engineer into humans (disease-resistance, high intelligence etc.), and they disagree about precisely what 'objective goods' to try to select for installation into humans/posthumans.

A further and stronger, though more abstract, objection is voiced by Habermas. This is that interfering with the process of human conception, and by implication human constitution, deprives humans of the 'naturalness which so far has been a part of the taken-for-granted background of our self-understanding as a species' and that '[g]etting used to having human life at the biotechnologically enabled

disposal of our contingent preferences cannot help but change our normative self-understanding' (Habermas 2003: 72). And will those TH agents (athletes and non-athletes alike), genetically and technologically modified to their autonomous heart's content, ever escape from being the objects of never-ending resentment (as Rollin 2003 remarked of those who in the future might develop, and retain the secrets of, extreme longevity)?

We have seen, then, that there are a variety of arguments for and against transhumanism. It will be clear that I am not in favour of the radical or the less extreme versions. It seems clear to me at least that the project is an undesirable utopianism. We have enough problems with the human nature we struggle with, let alone another nature that we neither control nor understand anywhere near as fully. At TH's heart, it seems to me, is a view of technology at the mercy of scientists generally (or in the case of athletic powers, sports 'medics'), which is simply a case of Prometheanism. This charge is often levelled against genetic and other technologists without proper explanation. It strikes me that the charge is not properly understood. In order to move beyond mere slogans or name-calling, then, I shall offer two contrasting lenses through which these claims may be viewed by returning to the roots of the Promethean myth itself.

Whose Prometheus: Hesiod or Aeschylus?

In order to understand the charge of Prometheanism one might begin by asking 'What is the myth of Prometheus?' I think the better question is 'Whose myth of Prometheus should we concern ourselves with?' I take my cue from Conacher's (1980) account and also from Kerényi's (1997), though I do not attempt fully to do justice to their accounts here.[5] I merely use them for my own purpose of providing lenses through which to view the unrestrained enhancement ideology of TH which, it seems to me, can find an easy footing in the unreflective pools of sports medicine and sports sciences more generally. First, let us say that there is no single Greek account of Prometheus' deeds. There are at least two sources and even among these sources there are variations. The two sources, in chronology, are Hesiod and Aeschylus. In Hesiod there are two accounts: *Theogony* and *Works and Days*. And the only full text from Aeschylus is *Prometheus Bound*, though we know it to be part of a trilogy (with *Prometheus Unbound* and *Prometheus the Firebringer*).

Theogony is Hesiod's account of the beginning of the world. The Titans (giants) challenged Zeus and the Olympian gods for the supremacy of the world. *Works and Days* is said to be a similar account, but one that celebrates the ideas that labour is the universal lot of mankind, but that those willing so to do can get by. This is important to appreciate in order to evaluate the act for which Prometheus became (in)famous. Prometheus, acting against his fellow Titans, sided with Zeus, and his cunning aided Zeus' victory over the Olympian gods. In consequence he was honoured by Zeus and seems to have some kind of dual nature: both god and mortal. Sometimes the two are simplistically dichotomized: Zeus as power, Prometheus as cunning reason or intellect (Conacher 1980). Prometheus is said to

have stolen fire and to have cheated the gods out of their proper share of a sacrifice. Which came first is not always clear as there are different interpretations. But both acts, according to Kerényi, evidence the claim that Prometheus is of deficient character. He writes:

> Prometheus, founder of the sacrifice, was a cheat and a thief: those traits are at the bottom of all the stories that deal with him. The meaning of his strange sacrifice in which the gods were cheated out of the tasty morsels is simply this: that the sacrifice offered up by men is a sacrifice of foolhardy thieves, stealers of the divinity round about them – for the world of nature that surrounds them is divine – whose temerity brings immeasurable and unforeseen misfortune upon them.
>
> (Kerényi 1997: xxii)

A little amplification is in order. Both Prometheus (often translated as 'foresight') and his somewhat bungling brother Epimetheus (sometimes translated as 'aftersight') set out on Zeus' orders to fashion creatures to populate the earth. Lacking wisdom (or 'foresight') Epimetheus fails to consider what qualities are necessary as he goes about making the 'animal kingdom'. Prometheus fashions mortals in the vision of the gods. Epimetheus, having used all his gifts from Zeus, has failed to clothe them and Prometheus watches pitifully as they shiver in the cold nights. It is here that, rebelling against Zeus' authority, Prometheus sides with mankind, and steals fire – hidden in a fennel stalk. The mortals are thus warmed. In order to appease and honour Zeus, Prometheus reveals his disrespectful cunning. He offers him an ox. In one half he hides the bones with a rich layering of fat, which appears on the surface to be the greater and more desirable share. Under the entrails of the animal he hides in the other skin all the good meat. Zeus, apparently understanding the deception as part of the unchanging fate of mankind, accepts the lesser share. By way of punishing Prometheus and all mortals, Zeus withheld fire from mortals.[6] The hubris of Prometheus in particular, though, is captured by his punishment: he is to be chained to a tree on Mount Caucasus where an eagle will eat at his liver all day only for it to be replenished overnight for the cycle of suffering and humiliation to continue the next day, and so on.

In Aeschylus we get a different interpretation of events, one that is at once more sympathetic to Prometheus. First, we have a more optimistic conception of 'human initiative' (Conacher 1980: 13). A further aspect of this is the fact that hope is hidden from men in Hesiod ('fortunately', it is said in Hesiod, or rather 'for their sakes') whereas in Aeschylus it is one of the gifts from Prometheus. As Conacher puts it:

> To put the point in the broadest possible terms, the Hesiodic Prometheus, by his deceptions and frustrations of Zeus in his relations with man, is presented (however 'artificially') as the indirect cause of all man's woes; the Aeschylean Prometheus, on the other hand, by his interventions on behalf of man, is presented as the saviour of mankind, without whom man would have ceased

> to exist and with whose help he progresses from mere subsistence to a state of civilization.
>
> (Conacher 1980: 13)

Aeschylus does this by suppressing the sacrifice deception and transforming the fire-stealing act into one of daring rather than hubris. For without the deception there is no occasion for the withholding of fire, which is the consequent punishment. For fire is seen not merely as the warmth that forestalls the chill of the night but – more importantly – as the precondition of craft, trade, even civilization. But what has all this got to do with transhumanism generally, and sports medicine more specifically?

A moral topography for sports medicine

In the rise of psychiatry much was made of the scientism that bedevilled the then emerging profession. Disputes raged as to whether there could be such a thing as mental illness (akin to physical illness) or whether this constituted the imposition of normative patterns of thought and action by state powers. The more pharmacologically inclined argued that mental illness did indeed exist but that its basis was chemical, not political. Others took it to be a case of the medicalization of everyday life. In all of this Thomas Szasz was (and still remains) a trenchant critic. Like Kass, Szasz has been charged with providing powerful polemic more than patient argument. Notwithstanding this, he once crafted the memorable remark that, 'Formerly, when religion was strong and science weak, men mistook magic for medicine; now, when science is strong and religion weak, men mistake medicine for magic' (Szasz 1973: 115). This juxtaposition of religion, magic and science is a troublesome one for the public no less than for gullible and overcommitted athletes who appear to lack any kind of moral framework within which to evaluate their Herculean efforts. The main concern which TH raises for sports is the following, rather general, concern: 'How are we to evaluate the enhancement agenda?' It is clear that there are strong advocates, such as Miah, who want to extend autonomous choice by athletes in ways that may easily open the door for unprincipled biomedical and sports scientists. Equally clearly there will be traditionalists, myself included, who find the unfettered use of technology to augment human nature utterly repellent.

One way forward is to establish better spaces of dialogue between opposing camps in order to establish what Taylor calls 'moral topography' (Taylor 1989). I take this to be a loose application of what he had in mind in his articulation of the moral sources of modern identity. Moral topography in sports medicine might be about drawing out the conceptual relief and the natural and artificial aspects of the work of scientists therein. I use moral topography as a metaphor for teasing out what I take to be the 'traditional' (natural?) work of medicine in the relief of suffering and the more recent (and artificial) goal of performance enhancement or the augmentation of natural abilities as opposed to the traditional therapeutic role of medicine. This may help develop critical but informed attitudes to, for example,

the new genetic technologies which are likely to invade elite sports over the next decade and which threaten to make arcane the worries over steroids, EPO or human growth hormone.

But in contrast to Miah (2004), and to Jonas (1974) and Kass (2002) before him, the new biology and biotechnology or indeed the new genetics need not require us to rethink a new ethics *ab initio*. The sources for the evaluation of medical and sports technology were revealed long ago in the ancient Greek writings of Plato. The historian of medicine Edelstein (Edelstein *et al.* 1987) notes the ancient Greek philosopher's task of undermining the glorification of the body. Building upon his insight, McKenny noted Plato's observations, considering the education of the 'guardians' so that medicine may serve rather than hinder or dominate our moral projects (McKenny 1997). In this vein we, too, should ask: How much attention should we devote to our bodies in the effort to optimize our capacities? How much control should we allow physicians to exercise over our bodies? What ends should determine what counts as a sufficiently healthy body? What limits should we observe in our efforts to improve our bodily performance and remove causes of suffering? Elite sportsmen and women, their coaches, sports national governing bodies and even sports promoters and institutions such as the IOC, the IAAF and FIFA, all have an interest in surpassing limits. Athletes are deemed to have failed if they do not 'peak' at big events, breaking their own personal best times, heights or distances. World records must tumble at every event, it seems. At this macro-level, enhanced performances are wrapped up in celebratory spectacles primarily to sell media and marketing packages. And the circus rolls on to the next event, the next town. This denial of the necessity of limits in nature by some, the desire to remove or delay their onset in the shape of disease or burnout-syndrome and to control these human-limiting factors by the unfettered use of biotechnology, is something that should concern us all in sports. I submit that philosophers of both sport and medicine begin to press such questions home in the public spaces of the media as well as the gymnasium and the university so that sports do not become the vanguard of Hesiod's Promethean project.

Notes

1 First appeared in *Sports, Ethics and Philosophy* (2007), 1(2): 181–94, with the title 'Whose Prometheus? Transhumanism, biotechnology and the moral topography of sports medicine'.
2 The best known advocate for which is Andy Miah 2004.
3 The conflation of terms goes worse than this. In my view a significant portion of what is called 'sports medicine' is not medicine at all, but more commonly sports science or sports technology. See Edwards and McNamee 2006.
4 The clearest expositor is Nick Boström. See his 'Transhumanist values' (2005b). See also Boström 2005a, and contrast with the outline of one of the movement's founding fathers Max More (1996, 2005). For a more detailed summary of the purported features of TH see McNamee and Edwards 2006.
5 A short summary of the two accounts, though with no comparison or contrast, can be found in Kearns and Price 2003: 453.

6 There is some ambiguity as to whether mortals had fire before. Conacher (1980: 12) is in no doubt that Prometheus stole it back for them, which entails their prior possession of it. I set to one side here Hesiod's misogynistic account of the first punishment intended for Prometheus, where Zeus has Hephaestus fashion woman from fire (namely Pandora) whose jar (and not 'box' as is commonly thought) contains all the portents for the suffering of mankind.

4 Ethical practice and sports physician protection

A proposal[1]

Preamble

It is in the nature of medical practice that it is always likely to yield ethical problems because of the role that health, illness and injury play in the lives of patients. Sports physicians can find themselves in particularly difficult (though not unique) contexts because of the role of the body in athletic performance, especially at elite and professional levels. Contrary to recent articles, however, sports medicine should not be viewed as giving rise to distinct or unique ethical difficulties. Such difficulties as arise in sports medicine merely reflect the kinds of challenges and dilemmas (e.g. confidentiality, conflicts of interest, consent, disclosure, working with vulnerable populations) as are found in other branches of medicine, though not necessarily in precisely the same configurations. One common professional response to the recognition of ethical demands and professional ambiguity is to establish codes of conduct such as those published by the American College of Sports Medicine (2013), the Australasian College of Sports Physicians (ACSP) (2013), the International Federation of Sports Medicine (FIMS) (2013) and the Faculty of Sport and Exercise Medicine (FASEM) (2013). Within the literature of applied ethics (Dawson 1994), sports ethics (McNamee 1998) and sports medicine ethics (Waddington 2006), the limitations of these codes as instruments of education, guidance and punishment have long been noted.

Most recently, within *BJSM,* the ACSP has presented and defended their new Code within the broad aim of contributing to the development of a professional community of practitioners (Waddington 2001). One of the merits of the Code that the article draws attention to is the articulation of standards of expectation, differentiating among other things between those actions that are, on the one hand, compulsory, from exhortations to best practice on the other. (They capture the distinction in ‘must’ and ‘should’ statements.) Nevertheless, that code itself has recently been criticized (Giordano 2010a) for a range of issues that it neglects or which it fails to recognize are at odds with extant practice. One of the standard criticisms of any code of professional ethics, which has often been overlooked in discussions of sports medicine ethics, arises from the notion of scope of application. To whom do the rules apply? Sports medicine is not unique in being

professionally fractured along disciplinary and geographical lines. The idea of a universal code, an Esperanto of sports medicine ethics, is almost certainly a pipe dream. Nevertheless, what the sports physician can and should do is to achieve the greatest clarity possible about the precise boundaries of their role before their services are engaged in order, first, to identify potential conflict and, second, to agree upon a clear set of priorities with the relevant parties concerned: athlete patient, club/team/federation/event organizer and so forth.

In this chapter, we propose a model of the nature of professional relations between sports physicians, athlete patients and other institutions for whom they offer paid and unpaid services (such as clubs, teams and national governing bodies [NGB]). We do not suggest that what is proposed is radically new. Scholarship and professional discussion on these issues has sporadically appeared over the last 20 years. It is hoped that adherence to the proposals might reduce many, though not all, aspects of ethically problematic practice relating to confidentiality and disclosure, conflicts of interest and insurance issues regarding fitness to practice abroad. It is further hoped that it will help to guide professional conduct in sports medicine and serve to stimulate further professional reflection on the nature and purposes of sports medicine within a defensible ethical and professional framework.

The roles of the sports physician and their relations with athletes and third parties

Sports physicians occupy a specific set of roles. For example, they may carry out the role of an athlete patient's general practitioner; a team doctor for a single club; the sports physician for a national sports federation (of which their club may be one constituent) or an international sports federation; an independent consultant to an employer of the athlete patient; an event physician whose services have been engaged by event organizers; or a specialist consultant in a legal process. Each of these roles brings ethical challenges, but between them there may be conflicts of expectations or duties (Flint and Weiss 1992; Collins *et al.* 1999; Waddington and Roderick 2002).

Although sports physicians may occupy other medical and healthcare functions beyond their sports medicine practice, the proposals below refer specifically to their interaction with any athlete patient. Where there is overlap between their role as consulting physician (i.e. general practitioner) and sports physician, it is the duty of the physician clearly to distinguish this and to communicate it both to patients and other interested parties. In all the scenarios that sports medicine presents the sports physician, it is recommended that sports physicians are focused on the care they give to their athlete patients. Best practice may be difficult to determine in a young medical specialization, where the nature of individual care and the demands upon athlete patients may appear ambiguous. It is not always clear how to interpret the best interests of the patient (Waddington 2006). Nevertheless, if sports physicians are to give their athlete patients the highest level of care they are able to, it is of the greatest importance that they develop trusting

relationships. Athlete patients who do not trust their sports physicians to act always in their best interest are unlikely to share with them such information as may help diagnosis, cure and prevention of athletic injuries and other deleterious conditions. In order to provide their athlete patients with the highest level of care, it will be necessary, therefore, for a clear separation of roles where possible between the sports physician, the athlete patient and the relevant third parties such as team coaches or managers; club owners, press officers; and those involved in team or squad selection. While this is not always possible, and while the sports physician may be burdened with a number of potentially conflicting roles, they should always seek to clarify and minimize such risks before the engagement of their services, consulting with colleagues and up-to-date sources of professional guidance.

Primary responsibility to the athlete patient

Promoting, securing and maintaining the health status, both short term and long term, of the athlete must be the primary responsibility and overriding priority of the sports physician. While the sports physician may have additional contractual and non-contractual obligations to third parties, these should never take precedence over their primary duties to the athlete patient. A sports physician who can act as a complete fiduciary (Nixon 1992) (i.e. an agent entrusted with the good of, and care for, another) for the patient is likely to provide better medical care because she/he is likely to give and get better information to and from the athlete patient. Clearly, not all sports physicians' actions are consistent with such a norm in the face of powerful external pressures, especially within highly commercialized professional sports (Waddington 2006). Hence, the potential for conflicting obligations should be minimized in order to provide long-term care that is best for athletes, best for club/team/NGB and best for the sports physician.

Where the sports physician is the sole treating physician (such as an event physician) she/he should be clear that their duties lie with all athlete patients irrespective of their club, team or federation affiliation(s). Before the commencement of events, the sports physician should seek to clarify the boundaries of their role with the event organizers and any issues of indemnity that would need to be understood before offering services to any athlete patient.

Conflict of interest

Sports physicians often find themselves with obligations to third parties beyond the athlete patient (Huizenga 1995; Anderson 2005). The sports physician must seek to minimize potential conflict of interest. This will allow them to fulfil duties of care and to respect patient autonomy and confidentiality. Before commencing employment, or agreements to provide services, the sports physician should seek to gain agreements as to their independence from any contractor of their services, preferably in writing. This agreement should specify whether their relation is one of: (1) employee (e.g. team doctor); or (2) independent consultant (e.g. to perform

a pre-participation fitness evaluation prior to selection or joining a new club). Clarity of expectation must also be sought if the sports physician is fulfilling more than one role (e.g. orthopaedic surgeon and team doctor) for an employer in relation to an athlete patient, which may give rise to a conflict of interests. The agreement should, among other things, secure the above principle that the provision of healthcare to their athlete patients be their exclusive responsibility. The sports physician should never be coerced into agreeing the return to athletic competition of an athlete patient who is unfit to do so. Wherever possible the agreement should lay out lines of communication and the responsibilities for reporting, which (where possible) should be directly to a person not involved in athletic performance, selection or management thereof. Any reporting must be within limits that respect duties of consent and confidentiality laid out below. The agreement must state with clarity what the expectations are upon the sports physician and those with whom they are to communicate. To protect the interests of all parties, the sports physician should keep appropriate records and store them securely so that access is permitted to the members of the care team only.

Confidentiality and disclosure

Athlete patients should be made aware that personal or private healthcare status data may need to be shared with other members of the healthcare team in order to provide the best level of care. There should be clarity as to the persons with whom such information may be shared (Anderson 2008). Sports physicians should, in their work, minimize the risk that confidential information is inadvertently revealed to others, for instance during examinations in a common treatment room or when participating in a press conference. There may be occasions where the athlete patient wishes to consent to breaches of confidentiality where they judge such a disclosure to be in their interests (e.g. with regard to recovery times or injury prognosis). Such disclosure should not prejudice the interests of the patient nor should there be coercion to divulge such information from interested parties such as coaches, team managers or media representatives. Consent to disclosure should be specific and the sports physicians should not normally rely on any more general or open-ended 'consent' given by the athlete patient (e.g. in an employment contract). Any such information as is passed on to those involved with athlete management or selection should be strictly on a 'need to know' basis. All parties should understand and agree that complete disclosure of records, even with athlete patient consent, should be the exception not the norm.

Moreover, there may be conflicting interests arising from the variety of roles that the sports physician is asked to fulfil. Where a sports physician is the treating physician in cases where an evaluation for a third party arises (e.g. to check fitness before a new contract, or an extension of funding, or movement to a new club or team), a clear separation of their knowledge and powers is necessary and must be communicated to all parties, especially the athlete patient. This should include information about their role(s) and any perceived potential for conflict. The sports physician must also consider other factors such as the location of the examination

and who may or may not be present in order to fulfil their fiduciary obligations to the athlete patient. In some circumstances, it may be appropriate to ask not to be put in this situation if the conflict of interest is acute.

The sports physician should be clear as to their responsibilities with respect to their knowledge of banned products, disclosure guidelines relating to athletes who are doping (Backhouse and McKenna 2011) and the reporting thereof, along with proper advice on and filing of therapeutic exemption certificates on behalf of their athlete patients. They should also be clear about potential conflicts between professional and World Anti-Doping Agency guidelines regarding disclosure of doping practices (McNamee and Phillips 2009). They should also be aware of their commitment to doping-free sport as members of their relevant national sports medicine federation and FIMS. Where sports physicians may be called upon to discuss athlete patients' healthcare data in public spaces such as the media, as is the case with celebrity sportspersons, sports physicians should seek the clear and specific authorization of the athlete patient as to what may be said to whom, when and how. Such agreements should be revisited and revised, as appropriate, on regular occasions in order to protect both parties.

Insurance

It is of the highest importance that sports physicians at all times have appropriate indemnity for their services. It is the responsibility of sports physicians to have such insurance in place as is necessary for them to underwrite the various services they provide. Where relevant, such as in the team doctor role, it will be their responsibility to assure that the club or team or NGB or international sports federation has provision for such. It should be understood in their terms of agreement that no sports physician can be asked to provide services that they are not insured to perform. This has become increasingly difficult for physicians working in highly lucrative fields such as English Premiership football and when travelling abroad to sports competitions (*Sports Medicine Global* 2013). The sports physician should not be asked to provide treatments that cannot legally be provided or underwritten. This should be recognized in their agreement with the employing or contracting institution. It is advisable to agree this before the commencement of every competitive season. Employers should agree not to request services that cannot be legally provided. It should be made clear that it is the employer's responsibility to facilitate contact and, where appropriate, authorization with the relevant local healthcare provider.

Support for sports physicians

Sports physicians should be aware of professional and ethical codes of conduct as related to their professional practice. Sports physicians should frequently update their knowledge and competency base in line with best practice guidelines relevant to their national healthcare and sporting contexts and be familiar with relevant national and international codes. They should also be mindful of the potential

conflicts and tensions that may exist among different codes pertaining to different constituencies whom they may serve or belong to.

A final point relates to the scope of practice of the sports physician in relation to the field of sports medicine, which must be understood in the broader contexts of medicine. It should be noted that the nature and goals of medicine are a highly contentious issue within the philosophy of medicine (Parens 1998; Hanson and Callahan 1999; Savulescu and Boström 2010). While traditionally, the family of medical professions shared therapeutic and preventive goals, the place of enhancement (taking individuals beyond the species norm or their own previous health norms) is centre stage in an era of personalized, technologically driven, medicine. In this vein, we must also ask what, precisely, the ultimate goal of sports medicine is (Edwards and McNamee 2006), what, if any, is the goal of performance enhancement within sports medicine, and whether the sports physician ought to embrace the performance goals of individuals or teams of professional franchises.

There is ample evidence in the literature on ethics and professionalization cited above, in relevant Codes of Conduct, that sports physicians find themselves caught between a rock and a hard place in their healthcare provision. While exhortations to best practice as we have developed above are important, individual physicians may find themselves in a weakened position if all they can do is point to models of best practice that they feel they should be allowed to emulate. It is therefore incumbent on leading bodies such as ACSM, ACSP, FASEM and FIMS to create professional spaces in which the very self-definition of sports medicine can be rigorously disputed and models of best practice negotiated with the variety of powerful sports franchises and institutions. The outcomes of these discussions, however temporary, will have profound effects for our understanding of ethical frameworks in sports medicine.

Concluding remarks

Sports medicine has developed at a dramatic pace over recent decades (Howe 2004). Though its roots are in ancient Greek and Roman athletics (Berryman 1992) it is nevertheless in its early phases of professionalization. In the proposals above, we have avoided reference to the broader configuration of sports and exercise medicine. Our justification for this focus is that the ethics of exercise medicine draws upon, and is more closely related to, the ethics of public health. It should, therefore, come as no surprise that sports physicians are still, and will continue for some time to be, working in contexts where it is far from clear how they are best to proceed in ethical terms for the good of their patients. It is to be expected that medical practice is always likely to yield ethical problems because of the nature of medicine and the role that health, illness and injury play in the lives of patients. Sports medicine finds itself in particularly challenging, though not unique, contexts because of the role of the body in athletic performance, especially at elite and professional levels. The positions set out here, we hope, should serve to challenge and stimulate national and international sports medicine

organizations to reflect publicly on what is admirable, permissible and impermissible in sports medicine, and to help to support individuals striving for the highest levels of professional conduct in sports medicine.

Note

1 First appeared in *British Journal of Sports Medicine* (2011), 45(15): 1170–73 with the title 'Ethical practice and sports physician protection: a proposal', co-authored with Søren Holm and Fabio Pigozzi.

Part II

Professional ethics and sports medicine

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5 On the duty of the doctor *not* to disclose athlete doping data without consent[1]

Introduction

Recent events in European professional rugby, referred to journalistically as 'Bloodgate', have drawn attention to the complexity and potential conflict that can occur when the worlds of medicine and elite sport collide (Holm and McNamee 2009). In the 'Bloodgate' affair, a player, physiotherapist and team doctor colluded to dupe officials in the 2009 semi-final of the European Cup into allowing an illegal substitution in an attempt to win the game in the final minutes. The doctor involved was suspended and warned as to her future conduct, while the physiotherapist concerned was struck off the professional register of the Chartered Society of Physiotherapists, but was reinstated upon appeal. Breaking sports laws, it seems, must therefore not be seen merely as a case of cheating in sports. Clearly, healthcare professions themselves are minded to act upon unprofessional acts by their members enlisted in the service of elite sports.

It should come as no surprise that healthcare professionals are and have been engaged in unethical conduct in sports. Their unethical conduct has been associated most frequently with assistance in relation to doping. Not only is this true in such famous events as the Tour de France (Houlihan 2002; Møller 2010) but also in less elite (Donati 2004; Anderson and Gerrard 2005; Anderson 2008: 2) and sometimes adolescent cases (Laure 2003; McNamee 2009). While it would be wrong to suppose that it is the norm for the sports medicine fraternity to assist in cheating with respect to doping, the pressures in elite sports and the money that is often at stake render it likely that physician-assisted doping will continue to happen. The work of every healthcare professional is guided by ethical considerations over which their relevant professional body has legitimate governance.

Doping has itself been the object of discussion over a number of years within sports-related healthcare professions, such as the British Association of Sport and Exercise Medicine, International Federation of Sports Medicine (FIMS), Association of Chartered Physiotherapists in Sports Medicine (ACPSM) and the International Federation of Sports Physiotherapy. International sports medicine and healthcare organizations have publicly declared the unacceptability of doping in their various position statements. The sources of guidance vary for the

healthcare professional working in sports medicine from their profession to the World Anti-Doping Agency (WADA). In what follows, we examine a potential conflict in the duties of a doctor who cannot simultaneously serve the patient's best interests while disengaging from giving advice regarding doping behaviours. Our example and the analysis that follows arises within a UK context but serves as a stark warning to doctors engaged in elite sports on a global basis. In the hypothetical dilemma we construct, the doctor may either find that they are culpable of a doping offence by offering harm minimization advice to their doping patient, or, in disclosing the confidential information of such, be 'struck off' from their profession.

A doctor's duties: ethical and professional guidance

In the United Kingdom, the General Medical Council (GMC) is the overarching professional body concerned with the British Medical Association. For those doctors executing their job with athletic populations, a further variety of more specific professional groups are involved, for example FIMS, British Association of Sport and Exercise Medicine, ACPSM and International Olympic Committee (IOC) Sports Medicine Code.[2] Each offers its own advice regarding doping and what should be the doctor's professional disposition in relation to it.

While there are subtle differences amongst these governance frameworks in relation to various aspects of professional performance, there are also easily discerned shared commitments. Amongst them, the following are of particular significance: (1) human dignity; (2) protection of health and safety; (3) confidentiality and privacy; (4) informed consent; and (5) duty of care. Thus, according to the Health Professions Council (2008), for example, the duties of a registrant demand that:

1 you must act in the best interests of service users;
2 you must respect the confidentiality of service users; and
3 you must behave with honesty and integrity and make sure that your behaviour does not damage the public's confidence in you or your profession.

Thus the GMC advises its members:

- Make the care of your patient your first concern.
- Protect and promote the health of patients and the public.

And later in the list:

- Respect patients' right to confidentiality.

Given the broad duties that govern ethical conduct in healthcare and medicine, what specific duties arise in the contexts of sports medicine with specific respect to anti-doping related expectations? We shall consider one aspect of the new World Anti-Doping Code (WADC).

The 2009 World Anti-Doping Code

The new WADC, which is the second version, has been accepted by more than 100 member states of UNESCO (WADA Code 2009). It was driven by the need for harmonization between sports and regulatory bodies engaged in and with sports. While the processes of its development incorporated widespread consultation, certain aspects of its regulatory framework have brought considerable opposition (see McNamee and Møller 2011).

Notably the International Federation of Association Football has rejected its whereabouts clause, where athletes are required to post, one month in advance, their whereabouts for one hour each day in order to facilitate random, out-of-competition testing. Equally, the EU has publicly articulated its unease with what appears to be a disproportionate invasion of privacy. One aspect of the WADC not frequently commented upon is the tightening of regulations relating to the medical support team. The rationale for this tightening is well founded. Clearly, where doping was widespread in some elite sports it would be wrong to perceive this as the effect of isolated individuals ('bad eggs') attempting to gain illicit advantage simply through their own deceptive efforts. On the contrary, access to and prescription of doping products and processes, their dosages, removal and 'masking' by other pharmaceutical products were the object of systematic organization and control by the sports support system which included doctors, physiotherapists, sports massage therapists and coaches/managers.

Clearly, then, in attempting to both deter and, where necessary, punish members of the support system, greater attention was required in order to call to account the full range of individuals contributing to the doping offence. The revised WADC set out modified anti-doping violations to include an article relating specifically to administration of banned substances by a third party. Thus, Article 2.8 of the WADC states that a doping offence may be deemed to have occurred if a healthcare professional acts so as to satisfy any or all of the following conditions:

> Administration or Attempted administration to any Athlete In-Competition of any Prohibited Method or Prohibited Substance, or administration or Attempted administration to any Athlete Out-of-Competition of any Prohibited Method or any Prohibited Substance that is prohibited Out-of-Competition, or assisting, encouraging, *aiding, abetting, covering up or any other type of complicity involving an anti-doping rule violation* or any Attempted anti-doping rule violation.
>
> (www.wada-ama.org/rtecontent/document/code_v2009_En.pdf [accessed 27 February 2013], *emphasis added*)

Since WADA does not actually prosecute or ban the athlete or official against whom a doping offence has been secured, the offence carries with it certain prohibitions that should be put into effect by the relevant sports bodies themselves. WADA has no jurisdiction to punish sports medicine professionals (see McNamee and Tarasti 2010). Two issues arise here. They both relate to the jurisdiction of governance.

First, there will be variability as to how any particular professional body will implement the sanction to practitioners in breach of WADC. Countries may also vary in their interpretation and application of the rule(s). International harmonization of responses here are unlikely to be achieved, although one might ask whether global sports medicine bodies such as FIMS, or indeed the World Medical Association, ought to take a policy lead for the sake of consistency. Only bodies who are signatories to the WADC are likely to implement its sanctions. Second, WADA recommends, although it has no power to do more than this, that the offending individual be banned from working with athletes within that body. (It is not, however, possible to ban them from all sports-related assistance. The scope of the ban refers predominantly to the sports-governing body in which the offence emerged, though it extends to all signatories.)

At first sight, Article 2.8 appears to be precisely the kind of regulation required to capture fully the offending parties in the sports medicine community. On closer inspection, however, the list of verbs that enunciate the sanctionable offence may give rise to considerable professional and ethical concern. It is worth citing the list of verbs and their consequence: 'assisting, encouraging, aiding, abetting, covering up or any other type of complicity involving an anti-doping rule violation'. Each of these verbs can be used to capture wrongful conduct for which a sanction may be applied. Take one example from the list to serve as an illustration of the problem faced by the healthcare practitioner: What precisely is 'aiding and abetting' to be taken to mean? No precise legal or medical meaning of these terms exists. Courts, no less than doctors (or other healthcare professionals), must use the everyday meanings of these words, which are open to considerable ambiguity and interpretation. A number of everyday scenarios might reasonably be envisaged, therefore, that would render the healthcare professional vulnerable to a charge of 'aiding and abetting' a doping athlete. For the purposes of illustration, we shall now discuss one such difficulty in terms of conflicts of duties in a realistic hypothetical scenario.

Harm minimization advice to the doping athlete

Perhaps the most widely shared healthcare or medical norm is that of serving the patient's best interests while, *ceteris paribus*, respecting their autonomous decision-making as to the nature and means of any professional intervention. Thus, our doctor, in line with the recent urgings of medical ethicists and sports medics (Savulescu and Foddy 2004; Foddy and Savulescu 2007; Kayser and Smith 2008a; Dawson and McNamee 2009), is deeply concerned with the health of the doping athlete in their care. Therefore, in line with general medical norms of respect for autonomy and acting in their best interest, they would consider it important that the athlete comprehends any information and advice imparted. Suppose that such a patient informs the doctor that they have been using off-label performance-enhancing products using the information on the web to determine their own dosages and cycles.

Concerned with what they perceive to be a moderately serious condition they approach their (e.g. team) doctor. Suppose further that our hypothetical doctor is committed to doping-free sport. Nevertheless, they also feel compelled qua medical professional to make their patient aware of the potential consequences of inter alia continued use, lowering doses, arranging cycles in the least harmful way and doing their best to persuade the athlete to cease their doping practices. All to no avail, the apparently well-informed patient argues that it is their body and no one else's that is at risk, and that they deem continued doping a risk worth taking. Moreover they explicitly instruct the doctor that the professional may, under no circumstances, inform third parties regarding the consultation. They threaten legal action if this route is taken by the doctor.

Consider now our wide-ranging WADC verbs. They seem to give cause for concern to the doctor who wishes to carry out his or her fiduciary obligation to the patient. Every healthcare professional is charged with serving the best interests of their patient. Part of this duty will entail respecting patient autonomy by imparting the relevant information and advice. Our hypothetical doctor appears to have met this obligation by informing the patient of dangers and recommending the cessation of doping. However, there is an obvious difficulty in what to do with this information, or 'guilty knowledge' (see McNamee 2002b). Are the best interests of the patient served by releasing this information into the public domain? The client has forbidden this possibility and the healthcare professional is properly aware of their duty to respect the patient's autonomous decision-making. It is at this point, mindful of their differing frameworks for professional governance, that the relevant codes are consulted. Foremost in their mind will be the matter of the nature and limits of patient confidentiality.

Patient confidentiality

A variety of ethical questions may have arisen in the mind of the committed anti-doping doctor: Should they deliberately overestimate risks in their communication to their patient? With whom, if anyone, should they share the information? Should they write up the notes in full or fail to document incriminating data? Or should they leave such notes, full or otherwise, in the purview of others who might discover them? The complex matter of conflicting duties, rights and consequences appear impossible to reconcile given their incommensurable demands. They conclude that the duty of care, and thus of patient confidentiality, has priority.

The ethical obligation to maintain patient confidences underpins the trustworthy relationship and is itself underpinned by the law that has consistently held that the relationship of trust between doctor and patient, including athlete patients, is essential for proper assessment and treatment. The relevant case laws are suitably pertinent to inform our understanding of the case, though each brings its own particular concerns before the judge who rules on them.

Lord Coleridge CJ held that the 'common law duty [of confidence] is nothing else than the enforcing by law that which is a moral obligation without legal enforcement' (*R v. Instan* [1893] (at 453)). Patients frequently pass on sensitive

information about their health and other matters as part of their desire to receive treatment. They do so in confidence and the law strives to ensure that privacy is respected by the doctor (*X v. Y* and others [1988]). In *AB v. CD* [1851] a doctor was sued for damages for revealing to a church minister that a parishioner had given birth six months after getting married. In that case the court held that the doctor was duty bound not to disclose confidential information unless required to do so by a court. The legal duty of confidence arises when one person discloses information to another in circumstances where it is reasonable to expect that the information will be held in confidence. Those circumstances reflect the nature of the relationship between an athlete patient and their doctor.

There are two key spheres to the duty that come together to reassure patients that the confidentiality of their health information will be respected.

1 A duty under the law of contract; and
2 A common law duty derived from case law and now supplemented by statute (*Cornelius v. DeTaranto* [2001]).

We consider these spheres of the doctor's duties below in this order.

Duty of confidence under contract law

All contracts of employment and contracts for services, such as occupational health services, contain an implied term imposing a duty of confidence (*Lewis v. Secretary of State for Health* [2008]). The duty extends to all patients, past and present, living and dead, and allows an employer to take disciplinary action, or an athlete to sue for breach of contract, should a doctor breach a confidence. Even where the doctor is engaged to provide occupational health services for a club or association no disclosure of an individual athlete's health information can generally occur without that athlete's consent.

Confidence under the common law

Under the common law, an obligation of confidence arises out of a general duty on everyone to keep confidential information secret (*Prince Albert v. Strange* [1849]). There is a public interest in keeping confidential information private. To establish a breach of confidence three elements must be satisfied:

1 The information must have the necessary quality of confidence. That is, the information is not generally available or known. Information of a personal or intimated nature qualifies (*Stephens v. Avery* [1988]) and this is very much the type of information doctors receive from their patients.
2 The information must be imparted in circumstances giving rise to an obligation of confidence. The law has long recognized that particular relationships give rise to a duty of confidence. These include priest and

penitent, solicitor and client and the doctor–patient relationship (*Attorney General v. Guardian Newspapers* [1988]).

3 The information has been divulged to a third person without the permission and to the detriment of the person originally communicating the information. An invasion of personal privacy will suffice (*Margaret, Duchess of Argyll v. Duke of Argyll* [1965]). As it is in the public interest that medical confidences are kept secret the court will regard an unwarranted disclosure of patient information as detrimental (*Attorney General v. Guardian* (No2) [1988] (Lord Keith)).

The private nature of the information doctors are given by their patients and the trust generated by the nature of the doctor–patient relationship clearly gives rise to an obligation of confidence that the law protects. Consequently, the court will consider that an inappropriate disclosure of information is bound to be detrimental to the patient and find that a breach of confidence has occurred.

The general duty of confidence established under the common law is supplemented by the provisions of the Data Protection Act 1998, which limit or prohibit the use and disclosure of information in specific circumstances, and the Human Rights Act 1998.

Nevertheless, as is often the case in ethical and legal matters, there is more than one potentially authoritative source of guidance. While in ethics competing appeals are often made to opposing moral theories (that may either disregard duties, rights or consequences as they see fit), in legal terms, consideration must also be made of European – and not merely UK – law. Article 8 of the European Convention on Fundamental Rights and Freedoms establishes a right to respect for private and family life that emphasizes a duty to protect the privacy of individuals and preserve the confidentiality of their health records.

It can be seen that the ethical, contractual and legal obligations imposed on a doctor to maintain patient confidences together with the sanctions they face for a breach of confidence have the effect of making any doctor reluctant to disclose patient information unless it can be shown to be justified. Our scenario is certainly one where the context, the quality of the information itself and the potentially deleterious effects to the athlete patient give a prima facie case for not divulging the data to parties outside of the clinical encounter.

Exceptions to the obligation of confidence

Notwithstanding the prima facie case to withhold the doping data from anti-doping organizations, none of the duties of confidence imposed on doctors are absolute. Each is subject to a range of exceptions that may justify disclosure. Doctors face an almost daily dilemma in deciding whether sharing patient information with a third party may be justified. We consider frequently arising exceptions below before applying them to our scenario.

Consent of the patient

Permission to disclose confidential information from the person who originally imparted it is the starting presumption in law and an obvious exception. The courts generally require this consent to disclosure to be in the form of an explicit consent preferably signed by the patient (*Cornelius v. DeTaranto* [2001]). The consent exception is only valid if the athlete knows exactly what information is to be disclosed and who is to receive the information.

What might justify disclosure of doping to a third party such as a national anti-doping organization or international federation?

Doctors frequently exercise professional judgement and disclose confidential information with those directly involved in the care of the patient. This caveat against the presumption of the general principle of confidentiality would cover the sharing of data with other doctors, physiotherapists and other health professionals where the information provided is necessary for the performance of their duties. These professionals are, however, in turn bound by a duty of confidentiality. To require an express consent from an athlete each time their case was discussed would be impractical and even detrimental to their healthcare.

Should the athlete refuse to allow information to be disclosed to other health professionals involved in providing care then it could mean that the care that can be provided is limited, and in some circumstances it might not be possible to offer treatment. Nevertheless, the athlete must be told if their decision to refuse to allow disclosure will have implications for the provision of care or treatment. Health professionals cannot treat patients safely or provide continuity of care without having relevant information about a patient's condition and medical history.

Where patients do consent to healthcare, research has consistently shown that they are content for information to be disclosed in order to provide that healthcare (NHS Information Authority 2002). Such disclosure is bounded, however, and wide disclosure to any doctor is not justified. Thus, in circumstances where disclosure is for a purpose other than treatment then an express, preferably written, consent is required. The GMC argue that an express consent is required from a patient before disclosure of information to an insurer, employer or government department or agency (General Medical Council 2009).

As there are no legal precedents to follow directly in UK law, consider what might be thought a helpful analogy. In *Cornelius v. DeTaranto* [2001], a teacher suffering from work-related stress saw a psychiatrist privately as part of evidence gathering against her employer. The psychiatrist sent a copy of her medico-legal report to the teacher's GP and a general consultant psychiatrist as well as her solicitor. Mrs Cornelius sued for breach of confidence. The Court of Appeal held that there was a breach of confidence as Mrs Cornelius had not expressly consented to the dissemination of the report. The report had nothing to do with her treatment so dissemination to other health professionals could not be justified on therapeutic grounds. As an initial presumption in law therefore, any disclosure of information

regarding the use of prohibited substances could only be disclosed by a doctor with the written consent of the athlete. Clearly the considerations above and the subsequent case do not apply in our scenario. To the contrary, the doctor has been expressly forbidden from disclosing the information.

It may be the case, in exceptional cases, that disclosure is ethically or legally justifiable without the express consent of the patient. Thus, the Department of Health advises that there are a number of exceptions allowing disclosure to appropriate sources without the consent of the patient (Department of Health 2003). These exceptions act as a useful aid to doctors when making a judgement about disclosing information. Where a patient is incapable of receiving information or of consenting to disclosure, then disclosure of care and treatment information to the client's relative or main carer may be judged to be appropriate. Similarly, disclosure to appropriate sources would be allowed in cases of suspected abuse of children under child protection procedures (Department of Health 1999, 2002). These points might afford the doctor latitude where the patient is a minor or possibly an adolescent. Neither is the case in our scenario and thus disclosure appears both ethically impermissible and illegal.

Disclosure in the public interest

A further avenue of justifiable disclosure might be considered. One common defence used by doctors who have to justify disclosure of confidential information is public interest. The courts accept that when a case concerning the disclosure of confidential information comes before them they are required to strike a balance between two competing interests: (1) the public interest in keeping confidential information secret must be weighed against (2) the public interest in allowing disclosure.

Generally, the sensitive nature of medical confidences weighs the balance heavily in favour of maintaining confidences. It would need to be an exceptional situation for the public interest to outweigh the duty of confidence and allow disclosure. These situations do arise when: (1) disclosure is in the interests of justice; (2) disclosure is for the public good; (3) disclosure is to protect a third party; or (4) disclosure is to prevent or detect a serious crime. The general principle underlying these considerations for the disclosure of what would otherwise be unlawful is the prevention of harm to others, variously conceived. Are there situations in which the above considerations might apply?

Disclosure in the interests of justice

Unlike lawyers, doctors do not have a privileged relationship with their patients. A court has the power to order disclosure of confidential matters if it is in the interest of justice and refusing to do so would result in conviction for contempt of court. In exercising this power the court must be satisfied that disclosure will satisfy the interests of justice. Where this is not the case they can refuse to order disclosure (*D v. National Society for the Prevention of Cruelty to Children* [1977]). Doctors therefore could be required by the courts to disclose information

about their patients both in the form of written statements and in oral evidence where this is necessary in the interests of justice. This appeal has no purchase in our private doping scenario.

Disclosure for the public good

Similarly, there can be circumstances where it would be lawful to disclose information where the public interest is served even though no crime has been committed or court action taken. Such circumstances could include disclosing information to a regulatory body such as United Kingdom Anti-Doping (UKAD) but only where there is a clear public interest in doing so. Such a public interest was found in *Saha v. General Medical Council* [2009] where the public interest in protecting patient safety outweighed the public interest in maintaining patient confidence. In *Saha* the High Court held that the GMC's Fitness to Practise Panel had been justified in finding that the failure of a doctor, who suffered from hepatitis B, to provide information as to his past employers was in breach of good medical practice and constituted misconduct. The doctor has argued that it would be a breach of confidentiality to reveal such information but the court rejected this argument and that the required disclosure was necessary for the public good.

It would be difficult to argue that such a disclosure, without consent, would be justified in a case where a doctor was in possession of information about the use of prohibited substances by an athlete in contravention of the WADA Code. The public interest in maintaining an athlete patient's confidence would outweigh any public interest in disclosure of this information, particularly where the disclosure arose as part of an examination for treatment. In *Palmer v. Tees Health Authority* [1999], the Court of Appeal held that in order to encourage patients to come forward for treatment and to measure the impact of treatment it is necessary for doctors to keep confidential information about wrongdoing that patients have candidly imparted to them. Similarly, in *Gillick v. West Norfolk and Wisbech AHA* [1986], the House of Lords made it clear that to encourage children to seek contraceptive treatment and advice it was necessary to impose on doctors the same obligation of confidence as there would be for adult patients.

Generally speaking, an athlete who seeks advice and treatment from a doctor regarding the health implications of using prohibited substances can expect the information they impart to be treated in confidence. This could be different if, for example, aspects of anti-doping regulations were incorporated into the law – and athletes criminalized (see Hoberman 2011) along with those who aid and abet them as they are in countries such as France, Italy and Slovenia. Then, however, further considerations would have to be made. In the UK, however, moves have been made to resist this elevation of sporting governance into civil law.

Disclosure to protect a third party

The law accepts that there may be circumstances where disclosure of confidential information is necessary in order to protect a third party, particularly where this

concerns a vulnerable adult or child. Doctors need to consider all the circumstances and use their professional judgement, informed with reference to the common law and GMC guide to confidentiality, to decide whether the public interest in protecting the third party outweighs the public interest in keeping confidential information secret. This might be the case where the athlete was a minor or was otherwise vulnerable. One potential scenario might be conceived under this principle. Suppose there is a case where the doping athlete is using substances that cause hyper-aggressive tendencies. Where the doctor is reliably aware that their patient has shown signs of such aggression (because of the unregulated use of a particular substance) and where they think the patient is likely to harm training partners or other competitors, they may be able to ground both an ethical and a legal justification for disclosure. One might think that this is a fairly extreme scenario. Nevertheless, were it to apply, it might underwrite the disclosure of the doping of the athlete.

Disclosure to prevent or detect crime

Doctors will be aware that patients who tell them that they use controlled drugs or prescription-only medicines without authority are committing offences under the Misuse of Drugs Act 1971 and the Medicines Act 1968. The common law duty of confidence does allow a doctor to disclose information to detect or prevent crime, but the seriousness of the crime must be weighed against the countervailing public interest in maintaining patient confidentiality (*W v. Egdell* [1990]).

Certainly it is the case that in recent doping scandals such as the Operación Puerto case, what has driven the criminal investigation has revolved around the trafficking of prohibited substances. So it is not impossible to imagine scenarios in which our doctor might come to appreciate the illegality of certain acts of their athlete patient. To justify disclosure the seriousness of the crime would need to represent a real risk to public safety. That is, there must be a need to prevent or detect a serious crime to justify breaching patient confidentiality as the countervailing public interest in maintaining sensitive health information would generally outweigh disclosure.

It can be seen that a doctor's legal duty of confidence falls heavily on the side of maintaining the privacy of patient information, even when this involves a breach of the WADA Code or minor breaches of the law. The public interest in maintaining confidences outweighs the public interest in disclosing information in all but exceptional circumstances. As with their ethical duty of confidence with respect to patient privacy, the doctor's legal duty compels them to seek an athlete's express permission before disclosing health-related information. A doctor's first duty is to treat and care for their patients and it is very likely that they would be prepared to contravene the WADC themselves in order to ensure that their athlete patients will seek advice and treatment in the knowledge that any information they impart will be kept confidential.

In our scenario, only the athlete is being harmed by their substance abuse, so the potential justification of disclosure to protect others from harm cannot

reasonably be invoked, nor can an appeal to sporting justice that would override the rights of the individual patient athlete.

Aiding, abetting and the duty of care contrasted

The default position regarding sharing confidential information with a third party where consent has been expressly withheld mitigate against the doctor disclosing doping information to a national anti-doping organization or international federation. Despite the possibility of extreme or highly unlikely interpretations of modifications to our hypothetical scenario, it seems that the doctor cannot successfully apply the exceptions to the general rule of confidentiality in order to disclose the data as the WADC demands. Therefore, our doctor appears duty bound to advise the patient on harm minimization strategies as the patient requests. This very knowledge, however, allows the doping athlete a more successful strategy; his risk-taking behaviour is ameliorated by the knowledge the doctor (however reluctantly) imparts. Consequently, this can easily be seen as 'aiding and abetting' since the verbs are themselves so open-ended. Thus, in serving the patient's best interests our doctor leaves him/herself open to a charge of a doping offence if the knowledge of the encounter becomes public, or of being 'struck off' if they disclose the information against the express wishes of the patient.

Concluding remarks

We have argued that there is a tension with regard to a variety of professional codes and the new WADC. Insofar as healthcare professionals must serve the best interests of their patients they must inter alia give advice and information as to the health choices of the doping athlete as well as respecting the privacy of the clinical encounter where doping choices may be revealed. While it may be difficult to harmonize codes that cater for a variety of professional labour, dialogue between WADA, (inter)national sports governing bodies and relevant (inter)national healthcare and medical professions is urgently needed to protect doctors and other healthcare professionals who are committed both to their clients, their own and their employers' requirements for doping-free sport. Clearly, more precise guidelines on how such conflicts will be interpreted by both WADA and the relevant bodies should be made public to prevent professional dilemmas such as this from occurring.

Notes

1 First appeared in *International Journal of Sport Policy and Politics* (2011), 3(2): 191–203, with the title 'On the duty of the doctor not to disclose athlete doping data without consent', co-authored with Richard Griffith and Nicola Phillips.
2 See for example IOC Sports Medicine Code, www.olympic.org/PageFiles/61597/Olympic_Movement_Medical_Code_eng.pdf (accessed 27 February 2013).

6 Sports medicine, confidentiality and the press[1]

Introduction

In today's media-driven sports world, the safe holding and dissemination of athletes' confidential medical information has never been more difficult to control. Social networking sites allow internet spread of individuals' personal details, and dedicated internet sites monitor players' injuries closely. Historically, concerns have been expressed by numerous organizations including the British Olympic Association (2000; Macauley 2000), the Football Association (2001) and the British Medical Association (BMA) (2001). Confidentiality issues surrounding English football have been examined in interviews with clinicians and players (Waddington and Roderick 2002). Anderson (2008) reported that clinicians were pressurized into releasing medical information to team management against players' wishes and called for the development of an ethical code. Physicians' first responsibility is to the athlete patient (Holm *et al.* 2011; McNamee and Phillips 2009). Professional bodies provide guidance on confidential information. The UK Faculty of Sport and Exercise Medicine states: 'If a Practitioner is requested to disclose confidential information without a patient's written consent, the Practitioner must follow the guidance in GMC (General Medical Council) *Confidentiality: Protecting and providing information*' (Faculty of Sport and Exercise Medicine 2010). GMC confidentiality guidelines state: 'If you are asked to provide information to third parties, such as a patient's employer, you should … obtain or have seen written consent to disclosure from the patient' (GMC 2009). The Medical Defence Union writes: 'Even confirming to the media that someone is a patient, without their explicit permission, is a breach of confidentiality' and 'if you agree to be interviewed you need to be aware of significant pitfalls in terms of patient consent … you may inadvertently reveal details that you had not discussed with the patient in advance and had not sought consent for' (MDU 2005). The Chartered Society of Physiotherapists writes: 'Physiotherapy information is only released to sources, other than those immediately involved in the patient's care, when there is a signed patient consent form to allow this process' (CSP 2005).

Materials and methods

Ten national daily newspapers, nine Sunday newspapers and one local newspaper were studied during March 2010 for stories containing athletes' medical conditions. Publications studied included the *Daily Express*, *Daily Mail*, *Daily Mirror*, *Daily Star*, *Daily Telegraph*, *Financial Times*, *Guardian*, *Independent, Sun*, *Times*, *Independent on Sunday*, *Mail on Sunday*, *News of the World*, *Observer*, *People*, *Sunday Express*, *Sunday Mirror*, *Sunday Telegraph*, *Sunday Times* and the *Northampton Chronicle and Echo*. The month contained a range of sporting events (see Table 6.1).

Only specific, precise medical bulletins were recorded. Releases containing generalized phrases were excluded, for example:

- 'injured'
- 'injury worries'
- 'picked up an injury'
- 'doubtful'
- 'remains in the treatment room'
- 'unwell'
- 'unfit'
- 'taken a knock'
- 'waiting for tests'
- 'sweating on the fitness'
- 'spending time on the sidelines'.

The following details from medical bulletins were recorded:

- day and date;
- newspaper, page and journalist;
- sport and organization;
- patient;
- injury;
- source of medical bulletin;
- injury status (acute; sub-acute; chronic; historical).

Results

Review of 333 newspapers revealed 5,640 specific medical bulletins. National daily newspapers averaged 18.72 examples, Sunday newspapers averaged 11.86 and the local paper averaged 6.07 examples. Saturday editions contained increased information (particularly for football, dominated by the top six clubs who dominated with one-third of the releases).

Table 6.1 Range of sports involved and sources of information

			Sources of information					
Sport	*Number of medical releases*	*% of total medical releases*	*Unknown*	*Patient (% of total for sport)*	*Coach or manager*	*Others involved in sport*	*Friends and family*	*Clinicians*
Football	4725	83.78	3687	219 (5%)	600	174	5	40
Rugby union	479	8.49	392	38 (8%)	43	3	0	3
Cricket	173	3.07	120	21 (12%)	25	7	0	0
Rugby league	82	1.45	60	2 (2%)	19	0	0	1
Athletics	61	1.08	21	34 (56%)	0	6	0	0
Cycling	31	0.55	22	8 (26%)	1	0	0	0
Tennis	30	0.53	23	7 (23%)	0	0	0	0
Horse racing	16	0.28	7	3	5	0	0	1
Hockey	14	0.25	11	2	1	0	0	0
Golf	11	0.19	10	1	0	0	0	0
Swimming	6	0.11	1	4	0	0	0	1
Motor racing	3	0.05	2	1	0	0	0	0
Speedway	3	0.05	1	1	1	0	0	0
Basketball	3	0.05	2	0	1	0	0	0
Skiing	1	0.02	0	1	0	0	0	0
Snowboarding	1	0.02	0	1	0	0	0	0
Superbikes	1	0.02	0	1	0	0	0	0
Total	5640	100	4359	344	696	190	5	46

Sources of medical information

For 77.32 per cent, the source is not clear. Some are direct observations from journalists and press/website releases from the sporting associations (see Table 6.1). Athletes were responsible in 6.1 per cent of cases and managers/coaches were responsible in 12.34 per cent of cases. Journalists report diverse sources including friends/families, team members, other (and ex-) players, referees, club officials, treating clinicians and other medical experts. Professional teams appear to have a greater degree of control over press releases of athletes' medical data compared with more individual sports. The greatest concerns arise over whether player consent was obtained, particularly in team sports.

Table 6.2 illustrates the specific involvement of clinicians in commenting on medical issues. It is predominantly in relation to football injuries that the press seeks observations from clinicians and medical experts including television doctors.

Table 6.2 Clinical liaison with press

	Treating medical team				
Sport	*Physician*	*Physiotherapist*	*Consulting clinician*	*Others*	*'Medical expert'*
Football	2	2	24	3	9
Rugby union	1	2	0	0	0
Cricket	0	0	0	0	0
Rugby league	0	1	0	0	0
Athletics	0	0	0	0	0
Tennis	0	0	0	0	0
Cycling	0	0	0	0	0
Horse racing	0	0	0	1	0
Hockey	0	0	0	0	0
Golf	0	0	0	0	0
All others	0	0	0	1	0
Total	3	5	24	5	9

Injury status

Injury status was divided into unknown, acute (<1 week), subacute (between 1 and 4 weeks), chronic (>4 weeks) and historical (injuries which the athlete had fully recovered from in the past). Table 6.3 records each.

Table 6.3 Injury status

	Injury status (%)				
Sport	*Unknown*	*Acute*	*Subacute*	*Chronic*	*Historical*
Football	36.1	27.2	16.5	15.1	5.0
Rugby union	4.8	55.5	16.7	12.1	10.9
Cricket	1.7	64.7	17.9	12.7	2.9
Rugby league	2.4	61.0	12.2	14.6	9.7
Athletics	0	13.1	32.8	27.9	26.2
Tennis	3.3	16.7	6.7	53.3	20.0
Cycling	0	38.7	0	19.3	41.9
Horse racing	0	68.7	25.0	0	6.2
Hockey	0	85.7	14.3	0	0
Golf	0	0	9.1	54.5	36.4
All others	0	22.2	11.1	44.4	22.2
Mean	31.2%	31.2%	16.4%	15.1%	6.2%

Cult of personality

The public's obsession with sports personalities ensures that the medical details of such individuals have prominence within newspapers (Table 6.4). Individuals' media exposure will vary, however, according to the development of new injuries and recovery from established ones.

Table 6.4 Cult of personality

	Individuals' medical details	
Name	*Sport*	*Number of items*
Aaron Ramsey	Football	185
David Beckham	Football	145
Wayne Rooney	Football	125

Accuracy of divulged medical information and portrayal of medical interventions

It is impossible to evaluate the accuracy of all recorded information, without significant disregard for medical confidentiality. Examples abound of alternative diagnoses and inaccuracies. Consider the inability to return to play. A cricketer's incapacity was described as due to ankle surgery and a chronic knee injury on the same day. Journalists and non-medical staff understandably struggle with informed reporting, particularly for hip and inguinal injuries. Additionally, one athlete was described as having 'had a metal plate inserted to support the fibia and tibula'. Intimate medical details appear including that of a sportsman receiving steroid injections into his testicles.

When athletes are interviewed directly about injuries, the information can be professionally alarming: 'surgery did its job but I am still in the process of getting some injections to try to manage the pain'; 'It's massive surgery … I couldn't really tell you what the exact problem has been. Tendons are something that a lot of people think they know about, but don't really, so a lot of the treatments I have had have been slightly experimental'; and 'Various orthopaedic specialists have been falling out with each other over the precise nature of the injury'. Finally, concerns over clinicians' expertise were inadvertently raised: 'Nobody knew what it was, so they just sprayed a bit of cortisone where the pain was. Now I'm bowling without any pain which is quite nice'. Therefore, the trustworthiness of a patient release is not unproblematic.

Discussion

The genesis of major sports injury stories is instructive. The month's newspapers were dominated by two soccer injuries: David Beckham's torn Achilles playing for AC Milan and Aaron Ramsey's fractured tibia playing for Arsenal (145 and 185 medical bulletins, respectively). A trend in information flow was observed: initial releases by managers and players, followed by treating clinicians and 'medical experts'. Club officials, ex-players, families, friends and even referees provide further comment. Archives are trawled for similar injuries, and players who have sustained such damage describe their own experiences. The personality cult ensures that certain individuals' medical problems are documented in (often imprecise) detail (Wayne Rooney, 125 bulletins on various injuries and illnesses).

The 2010–11 Football League/Premiership Contract (Form 13A) supposedly covers the release of patient data:

> The club shall not without the consent in writing of the Player use or reveal the contents of any medical report or other medical information regarding the Player obtained by the Club save for the purpose of assessing the Player's health and fitness obtaining medical and insurance cover and complying with the Club's obligations under the Rules.
>
> (Football League)

Whether players knowingly waive this right is a moot point. However, it does not necessarily follow that clinicians are exempt from their own professional responsibilities regarding patient confidentiality.

Researchers have argued for a more liberal view to monitor injury surveillance and, ultimately, reduce injuries: 'Professional athletes are celebrities working in a segment of the entertainment industry, and when they suffer injuries, this is part of the entertainment' (Orchard 2002). This study reveals, however, that the legitimacy and source of authorization is not clear. Clinicians were directly quoted in 0.8 per cent of the total bulletins, while quotes from non-clinical staff were much higher (21.9 per cent). The latter are not constrained by professional norms or disciplinary deterrence. Their source of information is usually the treating

medical staff, who may experience conflicts of interest to patient and employing organization. It is significant that the manager/coach controlling influence extends to decisions over continuing employment of clinical staff. Given that the athletes in individual sports were more likely to discuss their own health compared to those involved in team sports (e.g. track and field athletes contributed to 56 per cent of bulletins) with developed press offices, along with a culture of having day-to-day activities controlled by their sporting organizations (football 5 per cent and rugby union 8 per cent), it is reasonable to assume that the pressures on clinical staff to leak confidential patient data are considerable.

These data must be understood in context. There is evidence of non-clinical staff attempting to manipulate medical situations for tactical gain both prior to events (for example, distorting injury information) and during game time to gain tactical advantage (Holm and McNamee 2009). Clinician participation in providing misleading information runs counter to GMC guidelines to 'only disclose factual information you can substantiate' (GMC 2009). Within this context is media power. During November 2009 and April 2010, articles appeared on placental healing powers and the ankle injury sustained by the Arsenal player Robin van Persie. The treatment and clinical powers of its Serbian proponent were grossly misrepresented by journalists and football managers alike beyond anything that could be conceived of as evidence based. This may fuel unjustified perceptions of the lowly status of professionalism in sports medicine.

The press is eager to receive and report sensitive medical information within sport, but can be equally censorious of those caring for its participants and the difficulties that may arise: 'Dr **'s mistake was … becoming embroiled in sports medicine. It is a field in which hypocrisy abounds. The line between performance optimization and performance manipulation looks fine to an outsider. Yet we wrap the whole edifice of sport in its own peculiar morality'. Devitt and McCarthy (2009) outlined the examples of medical dilemmas faced within sport and drew up guidelines to help clinicians. Others have advised a return to an older model of preserving clinical independence from sporting organizations (Holm and McNamee 2009).

Conclusions

The overarching aim of the study was to raise debate on the ethics of professional boundaries regarding athlete patient data release and to call for more specific reporting guidelines on athletes' medical problems. Clearly accurate information consented to and/or sanctioned by the player should reasonably be released. Although injuries witnessed on the sports field by journalists and spectators is a matter of public record, the disclosure of detailed information, at a press conference or by coach or physician, typically offend wider spread medical norms of confidentiality and consent. Often, clinicians working within sport are faced with ethical dilemmas in this regard not experienced by colleagues in other specialities. Athletes' consent to release of their own medical information is central to this issue. Athletes are often young and naïve as to their rights in controlling release.

Although their employers and supporting professional associations should advise athletes appropriately, medical staff should play a key role in supporting, protecting and educating their patients. Training in preparation for meeting these situations should be enshrined within sport and exercise medicine programmes. The press, sporting organizations and non-clinical staff should be aware of the threats to clinicians' professional status which comes with the latter's involvement in unconsented confidential information release to those with no direct involvement in the medical care of the athlete.

Note

1 First appeared in *British Journal of Sports Medicine* (2013), 47(1): 40–3, with the title 'Sports medicine, confidentiality and the press', co-authored with Bill Ribbans, Hannah Ribbans and Craig Nightingale.

7 Sports physicians and anti-doping governance

Between assistance and negligence[1]

Introduction and contextualization

Notwithstanding collusion by physicians in systematic doping (Laure 2003, 1997b; Somerville 2005; Kuipers and Ruijsch van Dugteren 2006), the most important case of doctor fault in relation to doping offences was probably that of Andrea Raducan's case in the Olympic Games in Sydney, when she was stripped of her gold medal after testing positive for pseudoephedrine, which was contained in nurofen, a common over-the-counter anti-inflammatory medicine (Kuipers and Ruijsch van Dugteren 2006). A few words regarding her history and status are necessary to understand the sporting tragedy that evolved in relation to her doping offence. Andrea Raducan, one of the greatest gymnasts of her generation, was born in 1983. She started to train at the age of four, and by the time she was 14, she represented the Senior Romanian team, and made her debut at the Sydney Olympic Games when she was aged only 16. In 1999, she won gold as an individual in the Floor Exercises and gold in the Team Event at the World Gymnastics Championships, and silver on the Beam. At the Sydney Olympics, she won gold in the gymnastics (artistic) women's team finals and won an individual silver medal on the Vault. From 1996, she was under the control and direction of, among others, Dr Ioachim Oana, the Romanian gymnastics team doctor ('The Elite Gymnast' 2013). During the competition at the Olympic Games, she reported a headache, a running nose and a feeling of congestion to Dr Oana, who prescribed and issued her nurofen, an anti-inflammatory drug. He gave her a second nurofen tablet during the warm-up women's individual all-around event. She won gold in the gymnastics (artistic) women's individual all-around event. Subsequently, however, she failed a doping control, testing positive for pseudoephedrine, and was stripped of her gold medal by the International Olympic Committee (IOC) (Court of Arbitration for Sport 2000). Raducan said that she bore no responsibility for the anti-doping rule violation (ADRV), since the nurofen pills were given to her by her team doctor with whom she had a relationship of trust, and that the pills had not been performance-enhancing. She competed weighing only 37 kg, a statistic that is important when considering the effects regarding the concentration of the drug. Nevertheless, because of the strict liability condition (McNamee and Tarasti 2010), the IOC anti-doping panel and later the

Court of Arbitration for Sport (CAS) were implacable. The World Anti-Doping Code (WADC) makes it clear that there is no need to prove the intent to cheat via the use of performance-enhancing substances, but merely the presence of prohibited substances in the athlete's body is enough. Athletes have a duty to avoid the presence of such substances within their person. This is known as 'strict liability'.

The case generated a significant amount of media attention about the role of team doctor. The team doctor who administered the nurofen was banned for two Olympic cycles. It is noteworthy, however, that the then WADC and anti-doping regulations did not precisely define the role of medical doctor. The situation persists today, though greater clarity exists regarding the role of physicians in relation to the therapeutic use exemption certificate (Hilderbrand 2007) for athletes who have a clinical need for substances that are simultaneously on the prohibited list (PL) because of their (potential) ergogenic or (potential) harmful effects.

Material and methods

We analyse four result management decisions by the Anti-doping Agency of Serbia and the International Basketball Federation (FIBA) in 2010 which involved team doctors: one regarding an international Serbian handball player (Anti-doping Agency of Serbia Archive 2013) and three doping cases from FIBA.

Results

An international Serbian handball player tested positive in June 2010 for the substance of hydrochlorothiazide during in-competition testing at the French national championship. According to his medical history, he had been treated by ACE inhibitors, calcium antagonists and diuretics since 2008 because of hypertension. The therapy was prescribed by a cardiologist from Belgrade, confirmed by the team doctor of the Handball Club Partizan, Belgrade, Serbia, and then by the team doctor of the Dunkerque Handball Club: HB Grand Littoral, Dunkerque, France, and finally by the team doctor of the Handball Club Kolubara, Lazarevac, Serbia. What is important here is that the player has been seen by various medical doctors. What is even more important is that the player had informed a French doping control officer during doping control about his use of the diuretic, which is on the World Anti-Doping Agency's (WADA) PL (S5. diuretics and other masking agents). Yet, there are hypertension treatments available that are not on the PL, a point that the physician ought to have been aware of. Nevertheless, the doping control officer did not put it on the list of medications the athlete had taken during the week prior to the control. What is clear here is that as adults athletes themselves bear some responsibility (not just liability) to present themselves at competition in such a way that does not fall foul of the WADC's regulations. The player was given a ten-month ban, while the two medical doctors were subjected to financial penalties by the civil courts in Serbia (Hilderbrand 2007).

Our second case can be seen to fall somewhere between the cases of the handball player and Raducan in terms of the role played by sports physicians. A young Russian basketball player committed an ADRV by the use of nandrolone (S1. anabolic agents). He had been treated by a Russian team doctor following two fractures (the instep bone of the right hand, and left fibula). The physician ought to have chosen another medication with similar effects that was not on the PL. In spite of this offence, the player argued that he had no idea that the injections contained substances on the PL, that he had not previously committed any ADRV, and that he was unable to properly give consent as a minor. Nevertheless, under the auspices of strict liability, he received a one-year punishment while the team doctor received a lifetime ban from FIBA ('Decisions on Doping Cases', International Basketball World 2013). What is further worthy of note here is the discretion of the FIBA panel. Had the doping offence been detected by, for example, a more lenient anti-doping panel, it is not immediately clear that a one-year sanction would be handed down, given the (fairly clearly) accidental nature of the ADRV from the athlete's perspective.

The third case is that of a French basketball player who underwent an in-competition doping test in July 2010 in Zadar, Croatia, on the occasion of the France–Spain semi-final of the FIBA Europe U-20 Men's Championship. Upon being found to have committed a doping offence, he was handed a one-month ban while there was no punishment for the team doctor concerned. The player had filed a declaration of use for ventolin (salbutamol) with the French national anti-doping organization (Agence Française de Lutte Contre le Dopage) (NADO [AFLD]). During the game, however, he suffered an asthma attack and was urgently treated by the team doctor (whom the athlete did not choose, but may reasonably have assumed, was familiar with the PL), with an inhaler called Bricanyl (containing terbutaline, which is on the PL: S3. β-2 agonists). The team doctor had treated him in the mistaken belief that the declaration of use covered all β-2 agonists. The physician thus mixed different β-agonists, and though salbutamol and terbutaline are from the same group, he did not use the drug that had been registered on the therapeutic use-exemption (TUE) certificate. This oversight caused the ADRV to arise in the doping control. Unsurprisingly, it was argued that the player bears neither fault nor negligence for this ADRV, since this was clearly a mistake by the team doctor and that he had committed no previous ADRV. Again, from the athlete's perspective, this is one of the difficulties of the WADC regarding strict liability (Anti-doping Agency of Serbia Archive 2013).

The fourth and final case to be considered is that of a Spanish basketball player, who underwent an in-competition doping test in July 2010 in Toulouse, France, after the end of the USA versus Spain quarter-final of the FIBA U-17 Women's World Championship. The analysis showed the presence of the prohibited substance chlorthalidone (S5. diuretics and other masking agents) in the player's sample. Problems began for the athlete in spring 2010 when, it is alleged, she gained weight as a result of stressful school exams. The Spanish national team coach asked the player's parents to monitor her weight and initiate a diet with the purpose of rapid weight loss. After having unsuccessfully tried to lose weight, she

was contacted by the team doctor of the Spanish Basketball Federation responsible for the U-17 women's team who recommended a supplement named 'Obesity A'. It should be noted that a TUE would not normally be granted for this product. Upon joining the national team's training camp in early July, however, the team doctor asked her to discontinue taking the pills. Despite this, she continued using the drug, so it is clear that her doping offence could at best be considered careless and, at worst, a case of intentional doping. Upon committing the ADRV, she received a ban of nine months.

Discussion

Each of these cases highlights different aspects of the general considerations of fiduciary relationship between the athlete and sports physician (Holm *et al*. 2011). The duties of care of sports physicians that are not affected here range from negligence to lack of follow-through in treatment cessation. None of the cases can be called 'physician-assisted doping' in a strong sense, such as were witnessed in the Tour de France during the 1990s. In general, medical doctors are defined as 'athlete-support personnel' in the 2009 Code (WADA Code 2009). It is said that 'athlete-support personnel' (often called the 'athlete entourage') comprise any coach, trainer, manager, agent, team staff, official, medical, paramedical personnel, parent or any other person working with, treating or assisting an athlete participating in or preparing for sports competition.

The Code also defines, in very general terms, the role and competencies of medical doctors in relation to doping in Article 21.2:

- To be knowledgeable of and comply with all anti-doping policies and rules adopted pursuant to the Code and which are applicable to them or the athletes whom they support (Article 21.2.1).
- To cooperate with the Athlete Testing programme (Article 21.2.2).
- To use their influence on athlete values and behaviour to foster anti-doping attitudes (Article 21.2.3).

Finally, the Code defines punishment of medical doctors in Article 10.3.2. For violations of Articles 2.7 (trafficking or attempted trafficking) or 2.8 (administration or attempted administration of prohibited substance or prohibited method), the period of ineligibility imposed shall be a minimum of four years up to lifetime ineligibility. An ADRV involving a minor is considered especially serious because of the failure of a heightened fiduciary obligation ('Decisions on Doping Cases', International Basketball World 2013) and, if committed by athlete-support personnel for ADRVs other than specified substances referenced in Article 4.2.2, shall result in lifetime ineligibility for athlete-support personnel.

The central aim of the WADA Code with respect to athlete-support personnel is that those who are involved in 'physician-assisted doping' in a strong sense, or assisting athletes in masking doping practices, should be subject to sanctions that are more severe than the athletes who test positive. The athlete is always

responsible for any prohibited substance in his body (Article 2.1) under strict liability, but the period of ineligibility shall be reduced or even eliminated if the player can establish that they bear no fault or negligence. In line with strict liability, anti-doping panels typically argue that players did not ensure that no prohibited substances entered their body, and because of this, they cannot shift their responsibility under the rules to support personnel. Nevertheless, anti-doping tribunals may hold that a player's negligence is not insignificant and that it is, therefore, appropriate to impose variable sanctions on them.

Case 1, that of the handball player, is an interesting and complex one. Clearly, his case passed through the hands of several physicians: some local, some international physicians, one non-sport physician, several club doctors and an event physician. The potential for confusion, lack of clarity, oversight or even neglect, is obvious. Nevertheless, the consulting physician is professionally obliged to work in the athlete's best interests. This entails, in the case of team doctors and event physicians, being sufficiently aware of the obligations arising from the WADC. There are a number of issues of poor governance that can be highlighted here in the form of questions. Precisely, who ought to be accountable for the neglect of the TUE certificate being gained? To what extent are the records of the athlete patient shared among treating physicians at international events? How ought data sharing be better effected? Who has the ultimate responsibility for athletes' use of proscribed substances at any given time?

In the three FIBA cases (cases 2–4) presented above, the Russian athlete (case 2) received a one-year sanction because of anabolic steroid use, while the other two players (cases 3 and 4) were punished between one and nine months, reflecting offences of lesser performance-enhancing seriousness and the apparent therapeutic context of the offence. Moreover, concerning the athlete entourage, only the Russian doctor (in case 1) was significantly punished. Despite the fact that the Russian doctor used nandrolone inappropriately, this difference demonstrates the need for an urgent policy debate concerning governance. It is far from clear that case 1 and 2 merit such substantially different treatment for the doctors concerned. Specifically, it raises questions regarding the efficacy of the WADC in relation to the responsibility of doctors in sport. The need is not new (McNamee and Phillips 2009; Dawson and McNamee 2009; Waddington 2004). It is not precisely clear how well-founded are fears that the revised WADC may include physicians in the group of persons who can fulfil the elements of a doping offence (Striegel *et al.* 2005).

Athletes are expected to bear most of the responsibility for taking medical drugs and supplements that are potentially performance enhancing, harmful, and/or contrary to the spirit of sport, yet sports physicians are responsible *to* athletes *for* questions regarding anti-doping and medical care. If athletes cannot rely on the trustworthiness of physicians, particularly in relation to their competence regarding anti-doping regulations, then it would seem that their right to proper healthcare in the context of elite sports medicine is jeopardized. On the other hand, one can ask whether the supply of qualified sports physicians may dry up if colleagues are repeatedly found guilty of ADRVs.

From another aspect, medical doctors are often seen to be held responsible by sport administrators, athletes and the general public. The main accusations made are, first, that some are engaged in 'physician-assisted doping', and second, that they supply athletes with doping agents through carelessness (Laure 2003; Pipe and Best 2002). In the study by Laure *et al*. (Laure 1997b) up to 61 per cent of adult amateur athletes stated that they obtained anabolic steroids and other banned drugs from a doctor. It has been shown that general practitioners' (GPs) knowledge of prohibited substances in sport is poor. Greenway and Greenway (1997) have showed in their survey that only 53 per cent of GPs were aware of banned drugs, and that 12 per cent believed that medical practitioners were allowed to prescribe anabolic steroids for non-medical reasons. A Dutch study of 1,000 GPs was even clearer: 85 per cent of the respondents admitted that they were not familiar with banned drugs or their side effects (Laure 2003). If, as in this study, doctors are the most common source of information for the athletes (61 per cent) then the situation becomes more problematic (Somerville 2005).

WADA has argued for the necessity of systematically working with doctors concerning: (1) use of performance-enhancing drugs (including painkillers, doping agents etc.), recreational drugs and other products (extra proteins, vitamins), and legal substances such as tobacco or alcohol; (2) health risks (physical and psychological) as an effect of doping agents and a way to identify them during a clinical and/or biological examination (WADA 2013b). The same issues are noted by Striegel and Geoffrey elsewhere (Striegel *et al.* 2006; Verrall *et al.* 2006). It is problematic (not least for athletes) that medical doctors do not regularly improve their knowledge and attitudes to doping issues. This seriously brings into question the quality of training of medical doctors involved in sport on the subject of doping. Moreover, the issue raises the familiar problem of the specialism itself and the differing international standards concerning who may legitimately be called a sports physician and the level of training required for such. It is clear that holding GPs and specialist sports physicians accountable to the same degree would offend natural justice. Nevertheless, it seems that from the cases discussed above, which are not atypical (Pipe and Best 2002), medical doctors are not familiar with the PL and/or that they do not use it in practice. As a result, doctors are not always aware of what it is that they are being asked, or they simply do not realize that certain prescribed medications can be misused for doping purposes. This situation is likely to be compounded in situations where there is an event physician covering a variety of athletes and teams for whom the physician is unlikely to have a full medical history. Whether employing organizations should take some responsibility for checking up-to-date knowledge of anti-doping protocols of the sports physicians whom they engage is a point worthy of serious consideration.

What is also clear is that the WADA are somewhat impotent in the process of disciplining members of the athletic entourage. National and international sports federations can apply sanctions (though, as we have noted above, this is far from standardized) to prevent doctors, physiotherapists and other healthcare professionals from working with individuals or teams. What is more likely to be

effective is interagency collaboration between the WADA, the Institute of National Anti-Doping Organizations (or international anti-doping organizations such as Europe's CAHAMA group) in order to bring pressure to set international anti-doping education guidelines. They ought also, however, to bear on individual healthcare professionals via their licensing associations. For the most egregious of infractions, the temporary revoking of licences might be considered. This would not be without precedent (Pipe and Best 2002). Indeed, the physician involved in the case back in 1989 in Canada in the wake of the Ben Johnson incident was held not to be fit to practice and had his licence revoked.

Conclusion

Our study of these four cases of doping offences showed that (at least some) team doctors are not sufficiently aware of the problem of doping in sport. This ignorance or neglect has led to serious consequences in the lives of dedicated elite athletes and, in one case at least, for the physician. Sports medicine as a specialism is still in the early years of professionalization, and standards vary widely around the globe. Given the heterogeneous demands upon GPs it is unreasonable to expect them to have any detailed awareness of the PL. Elite athletes do not comprise the vast majority of patient cases. Here, athletes must be empowered by anti-doping education from NADOs and international federations, to have the awareness that they should inform the physician of their fairly unique occupational needs and related governance. This is one reason why anti-doping jurisprudence (Niggli and Sieveking 2013) acknowledges a lesser responsibility if the athlete finds themselves in the care of a physician they have not chosen, such as an event physician, or a national team doctor with whom they do not have an ongoing professional relationship. After that, one can reasonably expect the physician to make themselves aware of the athlete's needs and act accordingly.

Other researches show that these cases are not isolated incidents but symptomatic of a wider professional issue (Hoberman 2002). Clearly, international federations have a duty to guide their athletes towards specialist sports physicians where this is possible, and where a higher duty of care can be expected. Yet, many sports physicians simply do not know doping regulations or the PL in sufficient detail. Many of them have committed errors or have failed in their duty of care to athletes while it is the athletes who are punished. It is clear that athletes' rights are jeopardized in at least some of these circumstances and this demands a new approach and prompt education and adequate training of medical doctors in this domain. From the perspective of doping governance, the WADC, the role of medical doctors must be defined with greater clarity, and anti-doping education taken more seriously. Thus, in the period of WADC revision processes before the World Anti-doping Conference of 2013, it was necessary to better define the role of the medical doctor in sport and more precisely to regulate punishment of physician errors in a way that is both systematic and fair across international boundaries and sports federations.

Note

1 First appeared in *British Journal of Sports Medicine* (2013) with the title 'Sports physicians, ethics and antidoping governance: between assistance and negligence', co-authored with Nenad Dikic, Heinz Günter, Snezana Samardzic Markovic and Bojan Vajgic.

Part III

Ethically significant concepts in sports medicine

Health, wellbeing and harm

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8 Suffering in and for sport

Some philosophical remarks on a painful emotion[1]

Think of the countless times when sports commentators have made reference to the emotions in sport. Arrogance, anger and anxiety are known to playground sports just as they populate Olympic hearts, minds and stadia. The sheer variety of emotions, however, makes them difficult to pin down. Compare the tears of Mary Decker Slaney, the hot favourite who was tripped in the women's 5,000 metres final of the 1984 Olympics in Los Angeles, with the uncontrolled weeping of Matthew Pinsent on the podium in Athens in 2004, as he won his fourth consecutive Olympic gold medal in rowing. These extreme examples of intense emotions in sport should warn us against simple classifications of the emotions. In this chapter I want to make sense of how we can best understand emotions generally and the emotionally saturated concept of suffering in particular. I do this by first discussing some opposing philosophical analyses of the emotions. I then show the need to distinguish between pain and suffering more carefully than is typically done in sports medicine or sports anthropology, which often conceive of them as synonymous with private or subjective feelings. I go on to critically present some philosophical accounts of the concept of suffering in medical ethics. Finally, I sketch a picture of human suffering in sport from an ethical point of view. I articulate and exemplify a range of issues that arise from thinking of suffering in sport as an extended emotional experience, inherently linked to the projects which we care about, are committed to, and which partly constitute our identities as sportspersons.

Philosophers and the emotions

The thought that emotions are irrational has a long philosophical history reaching back to Plato, who writes in *Republic* (1953: 440a) of reason and its civil war with desire. In the picture that emerges, rationality wins by a knockout. Emotions, it is said, must be allowed neither to cloud our judgement nor to give us grounds for partiality or bias. This conception remained dominant in philosophy and religion into modernity where the German philosopher Immanuel Kant gave it particular prominence. Kant is frequently credited with denying the rationality of the emotions and viewing them as obstacles to rational moral action.[2] One part of that picture, which is commonly held, is that we experience emotions passively and

therefore that we are not responsible for them.[3] This latter point is worth dwelling on. Ought we to excuse people who, for example, react violently to a rough challenge in football, by simply saying that it was done in the heat of the moment – that it was merely an emotional outburst? Surely we should not use feelings and emotions as objects to excuse our moral responsibility. Typically in sport, however, emotional excuses are employed in precisely such a vein: 'he made me angry and I retaliated without thinking'; or 'I just could not get out of the depressed slump in order to pick myself up and pull out one last jump' (dive, shot, putt, throw, etc.). It is in these contexts that we often hear that X's judgement was 'clouded by emotion'.

Where has this got us? To understand concepts such as 'suffering' we need in part to understand the philosophical ethical traditions that give them their general shape as an emotion. Most sports ethicists celebrate a Kantian picture of impersonal rational morality in which emotion is to be mastered. This issues in a view of sports ethics as the observance of universal rules conceived of as duties or obligations. It is from this foundation that the deontological conception of ethics is built.[4] Other recent writings[5] have tended to focus on virtue theoretical accounts of character development where being the right kind of sportsperson entails acting out of the right feelings and emotions in accord with rational perception of the situations in which we find ourselves. The good life in Aristotelian thought is always a complex of thought, feeling and action in harmonious coalition.

Critics of an Aristotelian view of the role of emotion in moral judgement and action will point typically to the lack of impartiality in our emotional attachments and experiences. More strongly it could be argued that capriciousness arises precisely because of the biased commitments of an ethics based on the emotions. Surely one would want from sports administrators and officials such as judges and referees precisely the kind of impartiality that deontology offers and that an emotion-laden ethics undermines? Citing a list of duties and rights to guide our actions, choices and emotions might be thought necessary. This, it could be argued, is needed in order to avoid the kind of biases seen in so many judged sports, or even in the selection of high-school teams or extra-curricular sports where considerations extraneous to athletic merit wrongly influence roster decisions. Perhaps then, the leap to a neo-Aristotelian position, which I advocate, is too swift and too open to subjectivity?

One of the reasons for favouring an Aristotelian position over a Kantian one would be rooted in the role that biological aspects of emotions play in their understandings of ethics and the emotions. Kant's writings have much in common with biological theories of emotions which are grounded empirically (and therefore contingently) in human nature or our biological endowment. So feelings of basic emotions (the list, of course, varies from researcher to researcher) of anger, grief, shame, joy and interest should obtain across cultures (see Darwin 1972).

Characterizing emotions as merely subjective feelings – as biological theorists typically do – ignores two important aspects: first, that emotions entail judgements and, second, that they are to a considerable degree influenced by space and time. Early philosophical analyses of the emotions have been inspired by Wittgenstein's

anti-essentialism idea. That is to say, there is no essence to the concept of emotions (as there is in other complex ideas such as art, democracy, education, and so on). Instead it is better to think of the different meanings of the term as illustrating a family of resemblances. Just as family members share certain traits but not others, so there is neither an essence nor a unifying set of properties to the concept of emotion. Some are voluntary, some involuntary; some are passive, yet others are active. Likewise, their intensity, though typically greater than felt moods, can vary too; compare a punch in anger at an opponent for a late tackle, to the studied resentment of an opponent where one stews in one's own juices. Even allowing for their biological basis, Amelie Rorty's (1980) remark seems precise: the emotions do not form a natural kind. Moreover, certain emotions such as panic are experienced as self-referring while other emotions have a very significant interpersonal role in preserving boundaries of conduct by reinforcing norms of the acceptable and unacceptable. Emotions such as guilt, remorse, regret, Schadenfreude and shame all have a negative power that we typically seek to avoid or to work off.[6] Sometimes the emotions are felt in anticipation of action; at other times they succeed it. Sometimes they are directly motivational, at other times they are not.

To elicit the ethical import of the emotion of suffering (or any of its close cousins in the emotional field – anguish, despair, desolation, to name a few[7]) is to attribute the fact that the sportsperson him- or herself responds in part to a judgement or an interpretation of their situation. This point alone allows us to deny the description 'irrational' to the emotions.[8] Moreover, the emotions can be allowed a much more positive role in our identification of what matters to us in both fleeting and more considered ways. While it is easy to recall instances when emotions have got in the way of good judgement, or indeed been obstacles to right action, we can also think of examples where our emotional (though still cognitively based) responses are salient. Let me use a sports-emotion example, which arose at the time of writing this chapter: the news of the death of one of the most celebrated and controversial British football managers, Brian Clough.

The manner in which Clough positively affected the lives of the inhabitants of a provincial English town, on the way to achieving successive European Cup football victories, is nothing short of remarkable. In listening to the supporters' grief and their sense of admiration, one gets an idea of what Clough achieved and how his coaching and managerial philosophy in the late 1980s touched their lives. Of course, one can go overboard here. One can sentimentalize inappropriately: this is precisely the Kantian warning. Not for nothing did Clough refer to himself as 'Old Bighead'. Notoriously, he struck a fan who ran onto the pitch at the end of a game. Perhaps this is precisely the point at which a Kantian will want a strong role to be given to a controlling rationality distinct from the emotions. Yet the grieving spectators' emotional responses properly register their estimation of the part Clough played in more memorable days of their lives and in the life of the town. To conceive of the emotions more generously, then, can open a conceptual space in which we can consider more broadly the roles they play in our lives beyond exculpation and the denial of responsibility.

Nancy Sherman captures this point beautifully:

> We can think of them [emotions] as modes of attention enabling us to notice what is morally salient, important, or urgent in ourselves and our surroundings. They help us to track the morally relevant news. They are a medium by which we discern the particulars … In addition to their role as modes of attention, emotion plays a role in communicating information to others. They are modes of responding. Putting the two together, emotions become modes both for receiving information and signalling it. Through the emotions we both track and convey what we care about.
>
> (Sherman 1997: 40)

It is precisely the spirit of these remarks, inspired by Aristotle's idea of the harmony of thought, feeling and action in ethically admirable persons, that drives my thoughts about the painful emotion of suffering in sport. I shall attempt to show how suffering is an emotional response to deleterious events in our lives, to harms or losses in relation to the things which matter to us in an enduring way.

On suffering and pain: some initial conceptual geography

There is not a developed philosophical literature on pain and suffering in sport. Jeff Fry has published a very insightful overview of the theodicy of pain and suffering as it applies (and does not apply) to sport (Fry 2001). In sports anthropology, David Howe has catalogued the habitus of injury-acceptance as part and parcel of what is variously called the social field (after Bourdieu) or practice (after MacIntyre) of elite sport.[9] Neither Fry nor Howe, however, direct attention significantly to the relations between the two concepts. What I shall do in this section is set out some analytical remarks concerning the two concepts – and only hint at the theological similarities and dissimilarities in an attempt to enquire as to whether a consideration of suffering might have something interesting to say about the nature and purposes of sport, and the sportspersons' emotional components seen as part of the living of a good life.

There is often conceptual confusion in sports talk surrounding these thorny concepts. Typically, suffering and pain are conflated. One is thought to be suffering when in pain, and when pained, to be suffering. One of the ways of dealing with the complexity of the conceptual connections of pain and suffering is crudely to dualize them in the aspect of the person. Under such a dualism, pain is physical, suffering is mental. Thus Howe writes: 'Pain is a highly subjective phenomenon, and this has led to its exclusion from much discussion of injury, which may be seen as more objective' (Howe 2004: 74). Despite disavowals to the contrary throughout Howe's book, it is difficult to read passages in any way other than dualistically.[10] After Descartes, and dominating Western philosophy until Gilbert Ryle's brilliant debunking in *The Concept of Mind*, people were thought to consist of separate parts – minds and bodies – whose natures were distinct. Howe's writings, like those of many other social scientists (especially

with the rise of the sociology of the body, with authors who are not naturally inclined to a phenomenological mien) and even sports psychologists (who really should know better), has difficulty in escaping the language that separates mind and body as distinct entities. So in Howe's fine book, it is perhaps not surprising that mental concepts such as 'anguish' or 'suffering' do not appear in the index. It seems clear that physical pain is the paradigmatic object of discussion. And there is, of course, nothing necessarily wrong with this. What is problematic, and what is found in many places elsewhere, is a particular set of relations between pain and suffering. On the one hand there is an apparently non-dualistic position where writers casually refer to bodily suffering as 'a sensation usually in the body'. On the other hand there is the dualistic one: suffering is supposed to be the felt marker: pain indicates suffering.[11]

A further, less frequently observed, aspect of suffering and pain is brought out by Ivan Illich (1987):[12]

> The Old Testament is very rich in words that express a deep, deep sense of suffering: anguish, fear, bitterness, the experience of being lost, forlorn, beaten up, exposed to the wrath of the Lord. It was only very much later, during the Christian epoch, that rabbis felt the need to assign a specific word for that which we moderns now call pain. When these same rabbis had to talk about physical pain they used the word that designated punishments which I inflict. The English word pain comes from the Latin poena, from being punished. The concept of a physical pain, one specifically physical, comes from the experience of being chastised by another. In our language pain does not come from the inside; it is imposed on us from outside.

In what follows I will assume that the concepts of suffering and pain are closely related and will develop some ideas more concerned with suffering that is not driven by pain. To do this I shall draw upon analyses of suffering from the medical ethics literature.

Concepts of 'suffering' in medical ethics

In a well-known medical ethics text, Cassell offers the following definition of suffering: 'Suffering occurs when an impending destruction of the person is perceived; it continues until the threat of disintegration has occurred or until the integrity of the person can be restored in some other manner' (Cassell 2004: 33). And later: 'suffering can be defined as the state of severe distress associated with events that threaten the intactness of person' (Cassell 2004: 33). The two features of this definition might be called the: (i) feeling; and (ii) integrity criteria.[13] It is worth observing how these criteria relate to aspects of privacy and subjectivity. There can be times when there seems to be a simple causal relationship between pain and suffering – though it must be noted that Cassell avoids the simple dualism of caused in the body, suffered in the mind. In such cases one suffers because one is in pain. Cassell refers (pp. 25–36) to situations when the pain is so severe it is

'virtually overwhelming', when the patient believes the pain cannot be controlled, and also to pain that is not overwhelming but continues for a very long time. It is not difficult to find sporting examples for these instances of suffering because of pain. They represent, perhaps, a kind of paradigm for sporting suffering in that they are at least the most obvious of cases of sporting suffering.

Cassell, however, makes a couple of further conceptual remarks that are interesting for our purposes. Like Howe, he writes dualistically in the vein of an essentially private character of suffering: suffering is ultimately a personal matter – something whose presence can only be known by the sufferer (2004: 35). This privatization of suffering runs counter to the view that I shall adopt and adapt later. In that account, suffering can indeed be attributed by another. Indeed, our predication of empathy as sports spectators rests on this point. As I watch the gymnast fall on the last movement of her routine my heart goes out to her. I can appreciate at least sufficient of her misery to see how and why she suffers. In later remarks, however, Cassell captures at least some of what I take to be the inherent sociality of suffering:

> Suffering must be distinguished from its uses. In some theologies, especially the Christian, suffering has been seen as presenting the opportunity of bringing the sufferer closer to God. This function of suffering is at once its glorification and relief. If, through great pain or deprivation, someone is brought closer to a cherished goal, that person may have no sense of having suffered but, instead, may feel enormous triumph. To an observer, the only thing apparent may be the deprivation. This cautionary note is especially important because people are often said to have suffered greatly, in a religious context, when we know only that they were injured, tortured or in pain, not whether they suffered.
>
> (Cassell 2004: 35)

He summarizes: although pain and suffering are closely identified in the minds of most people and in the medical literature, they are 'phenomenologically distinct' (Cassell 2004: 35).

Given that the concepts are so frequently run together, we should ask: precisely what does it mean to say that pain and suffering are conceptually distinct? One could think of minor ailments, when one is in pain but not suffering. One could think of fleeting twinges – for example, the type which, in my early middle age, I encounter in my knee, back and ankles when I run – when it would be a piece of gross conceptual inflation to say that I was suffering. Finally, one could imagine cases of minor injuries: knocks, bumps, soreness, which are inherent in contact sport. When we experience minor injury or dysfunction it is no more than the consequence of the graft and grind of any sporting life. These simple remarks serve to establish the point that pain and suffering are not synonymous. We may often be in pain but it does not follow that we should speak of ourselves as suffering.

One further idea which might cut through the simplistic body–mind pain/suffering complex is the idea of significance. It can be argued that what the

integrity criterion attempts to secure is a 'quality of depth' in our experience. Suffering under such a description necessarily draws on both significance (extent or duration) and psychological distress. It would be odd to speak of one who suffered momentarily or in the blinking of an eye. In what follows below I consider Edwards' critique of the 'feeling' and 'integrity' criteria of Cassell's account and his own analysis of the concept.

Edwards bases his criticisms of the concepts of suffering proposed by Cassell, among others, upon a more cautious appropriation of the concept. His leading point is a rejection of the essentialism entailed in the necessary and sufficient conditions they propose; that is to say, he rejects their method on Wittgensteinian grounds. Edwards says that we should attend to the uses of the concept 'suffering' in order to establish its meaning. And following our appreciation of that heterogeneity we shall find no crystallized essence but rather a family of meanings that crisscross and overlap without containing any indisputable linguistic essence. Suffering is the kind of experience that must be felt. To suffer is to be in a state that is necessarily felt by the agent. In this respect, it is like pain. He says: 'Would it make sense to say of a person "You're in pain" if this came as a complete surprise to them?' (Edwards 2003: 65). Of course, stories are legion of sportspersons who are injured without consciousness of it as they perform heroic deeds – only later to collapse in agony. One image that springs to mind is that of the bandaged American gymnast Kelly Strug as she prepared to risk even more serious injury lining up for the vault which won the American team the gold medal at the l996 Olympic Games. However, although one may be injured without being in pain, one cannot be said to suffer without the cognitive aspect of the emotion registered at some conscious level. This condition seems indisputable for human suffering. Put formally we might say that it – the awareness of some seriously negative happening – is a necessary condition of suffering but not a sufficient one. Well, for the moment we may say that. I think there are good grounds for denying even that much, as we shall see.

Second, Edwards argues that suffering must be extended in time. Something as fleeting as a pinprick, or stepping on a sharp stone, cannot count. Moreover, though this seems a separate point, he argues that pain is not a necessary condition of suffering, for we may grieve deeply while experiencing no pain – where this is taken to be the unpleasant sensation produced by physical causes. Third, he argues that one cannot be happy and suffer. To suffer is to have a shadow cast – for that time – over one's enjoyment of life. He does note that in theological accounts of suffering – martyrdom is the extreme – the suffering is a central part of one's conception of the good life, but he argues that here one merely has a stronger preference for the suffering.[14] Edwards summarizes his threefold account thus:

> The first is a 'self' component; the sufferer must realise that it is he or she that is suffering, that the experiences are his or her own. Second, the phenomenological component, the distinct way or ways it feels to suffer. And third, a temporal component; this will signal the duration of the experience of suffering. Schematically we might express such experiences thus: [S, p, t].

> Where the components are the self component S, the phenomenological component p, and the temporal component t, respectively.
>
> (Edwards 2003: 65)

We can conclude that there is at least a generic meaning here; a conceptual core but nothing as strong as an essence conceived of as a set of necessary and sufficient conditions. That general sense of suffering means little more than experiencing something significantly deleterious to our wellbeing. In relation to human suffering we typically qualify the nature of that suffering in an adverbial way by drawing out the qualities of mind and character that attend the suffering. In addition, I want to draw attention to a specific dimension – the emotionally saturated idea of suffering. It seems to me that much suffering in sport is merely the experience of distressing pain – and this is surely worthy of explanation. But I shall not address it below, preferring instead to highlight a few remarks about the emotionality of suffering in sport. By way of summary, let us agree for the moment that suffering in sport is an extended emotional response to events that are significantly deleterious to our wellbeing. Where will that take us?

Conceptualizing human suffering as emotion

Let us say that we can articulate human suffering as a felt emotion. This point arises from Edwards' first two conditions, though he does not employ the description of suffering as an emotion as such. The idea that suffering is an emotion is denied by some. Consider Mayerfeld who argues that one may suffer without cognisance (Mayerfeld 1999: 50). He asserts that one may be stunned, inarticulate or confused. Yet it seems that here he is presupposing that for which he must argue. For while it is true of certain moods (distress being one candidate) that they are to a certain extent diffused or inchoate, I cannot see what conceptual advantage there is in thinking that the epistemological condition is not necessary.

In my discussion of emotion above, I included the cognitive element of emotion, which is typically in the form of a judgement. Imagine being told by someone who looked desolate that they are suffering but they did not know why. We might think, quite reasonably, that they had taken leave of their senses. Of course, they might be experiencing a sense of foreboding, anticipating some bad event, or simply be feeling melancholic. If this were the case, though, we would have moved away from emotion-talk and back into the territory of moods, which have a lower cognitive threshold and no specific intentional object. Moreover, that someone is inarticulate or stunned or confused is a psychological condition – one that need not impinge upon our conceptualization of suffering as an emotion. So let me assume here that to suffer is to experience an emotion with an intentional object: we suffer because of our perceptions of something significantly bad about our condition. Nevertheless, this alone is insufficient to make sense of suffering. In the light of the foregoing we should say that to suffer is to undergo some unpleasant emotion for some significant duration. Now what is to count as significant duration cannot be pre-specified in some abstract way. The particularity

of the phenomenology of suffering means that what counts as extended in one context may be brief in another. But that does not open the door to subjectivity of meaning. Consider the intensity of effort of the 400 metre runner as she/he comes down the final straight, paradoxically trying to produce and remove lactates from her/his legs. I want to maintain that to use the word 'suffering' here, as commentators do, is inappropriate. Contrast the use of the word 'suffering' to describe the efforts of marathon runners in the last mile, or Tour de France cyclists going for the last climb of a mountain stage. Here the use of the word has a more natural home. Edwards does not develop this point and so I shall say a little by way of justification for the position.

For us to speak of emotionally saturated suffering, we must at least have time to dwell (should we so desire) on our misfortune in order for us to suffer. In this sense we could contrast suffering with more episodic emotions – such as the joy of scoring a goal. This is brief, however much we recall, re-describe and relish it on later occasions. Now if we were to evaluate the benefit or disbenefit of an emotion we might well be required to consider its duration as well as its extent. Ought we to opt for a few years of adulation, status and wealth at the expense of a lifetime's suffering, as many elite sportspersons do? Typically, the experience of the emotion in sport does not last in time in the same way as the caring love of a parent or child. Equally, though pain can range from mild to excruciating, it seems to make little sense to say that suffering could be mild. This is not to say that suffering is all or nothing. We do not need to be absolutist about this. But it makes sense to say that there is a certain threshold before we meaningfully apply the concept.

By coalescing pain and suffering, by failing to keep them analytically distinct, Mayerfeld denies this attribution. He draws on the locus classicus of the pain register (Melzack and Torgerson 1971) which describes pain as ranging from mild to discomforting, and then to distressing, horrible and, finally, excruciating. Mayerfeld goes further by saying: 'These words recognisably refer to the intensity of suffering not just pain' (Mayerfeld 1999: 39). I do not see the coherence of this application, and Mayerfeld offers no argument for it. In order that one may be said to suffer, one must experience a certain intensity or one cannot say one suffered. To suffer mildly makes little sense, pace Mayerfeld, though to describe a pain as mild does make sense. Cassell is much clearer here. He says that we suffer – in relation to pain – when the pain is so severe it is virtually overwhelming (Cassell 2004: 36) and later when the patient believes the pain 'cannot be controlled or in relation to pain that is not overwhelming but continues for a very long time' (ibid.). It is not an accident that in the biomedical literature, where pain and suffering co-mingle, we find that chronic pain is the paradigmatic example. Extension in time, and a certain intensity, are all present in Cassell's examples. They are part of the condition of suffering. But an articulation of that condition is not complete without the articulation of a sense of meaning that attaches inherently to it.

In addition, it seems reasonable to say that we cannot suffer in relation to things to which we are indifferent. Whereof one does not care, thereof one cannot suffer.

That for which we suffer we must, in some fairly strong sense, be committed to, or care for, or identify with. There must be some sense of both attachment and value. This is the direction in which Cassell's intactness condition aims, but it sets too high a threshold. Equally, Edwards holds that suffering must have a 'fairly central place in the mental life of the subject'. But this condition does not have direction; it does not specify the inherent negativity of the concept. Here Cassell merely asserts that the religious martyr suffers yet experiences the suffering positively. This seems to be too open-ended. Can we not hold that the negativity is, logically speaking, internal to the concept of human suffering? When one embraces a painful death, in what sense can one be said to suffer? It strikes me that that would be contradictory. It is a mistake founded on the generalizability of experience – yes, you and I might suffer in such circumstances but our Weltanschauungen are radically different.

What is at stake in suffering, as I have said, is something that is not a matter of indifference to us – it is something that is part of 'our horizon of significance', to use Charles Taylor's apt phrase. As Cassell observes, we can only see the Christian sufferer in pain. Perhaps we can put it more strongly by saying that martyrs do not suffer the pains of fire, rather they rejoice in it. Now a chief question will be whether sportspersons, like religious martyrs, find the depths of meaning in sport that their forebears found in Christianity.

Having only hinted at the features that I consider critical to capture our emotional sense of human suffering, I will merely point to aspects of sports suffering that would bear further analysis and note certain social and theological parameters that might serve to deepen our understanding of suffering – especially for those such as physicians or physiotherapists or sports coaches who necessarily deal with the equally necessary sense of the inevitably tragic in sport.

Suffering in and for sport: three possibilities

As I have said, the paradigmatic cases of suffering in sport relate closely to those cases wherein pain drives the suffering over time in relation to something of importance to the sufferer. There are three categories where this could usefully be explored in sports-related literatures. They help to point to what I think of as the inherent tragedy of sport. Forget the myth of continual progress so dear to global capitalism and crystallized in sports marketing. The point is simply that sport careers (however humble or exalted) are not best represented in a linear fashion. Rather they are cruelly, inescapably, elliptical. They rise, they peak and then, necessarily, they fall. The simple fact can be seen in three categories of sportspersons to whom we might look naturally for suffering: (i) the elite athlete; (ii) the ageing athlete; and (iii) the retired athlete. In each of these cases the meaning of the suffering will be coloured in distinct ways; the manner in which the sport informs the life of the elite athlete – who may be almost suffocating in its exclusivity and intensity – will be quite distinct from the more chronic experiences of the ageing athlete and the desolation of the retired athlete who may wallow in a post-sport world devoid of emotional peaks and troughs (along with other lacunae).

If we were to agree that suffering in sport (as elsewhere) is best thought of as an emotional experience, then we should be able to point to the intentional objects involved. What might cause such suffering? Some potential precursors might be: (i) the anticipation of loss or the infliction of a defeat; (ii) the recognition of consequences of injury; (iii) distress of possible termination of career, perhaps most strongly for elite athletes; and (iv) sports death as it were: the loss of economic and social identity. Of course, the list is not exhaustive and merely attempts to suggest where one might toil for more interesting phenomenological investigations. In these cases one could ask whether sportspersons, contra Huizinga, take their sports too seriously. Here the status of the sportsperson is all important. For professional players, sports may well be everything – the phrase 'it's only a game' is a banal utterance in this context. The rest of us, however, need to find a place for the sports activities we care for, love and value, in ways that are not as totalizing. It also opens up at least one significant normative question: ought we really to suffer for sport?

Having merely hinted at the meaning-driven facets of sports suffering, it might be worth thinking how the duration element might draw us to look for central cases in sport. Where might we find suffering in the performance of sport – as opposed to the preparation for sport? The obvious point to look at is those endurance sports where performance is not merely extended over time – a round of golf after all takes three to four hours – but also those where there is a limited array of performance factors. Typically, sports where the production of power is not dominated by technical or aesthetic concerns seem rich candidates for sites of suffering. We find not merely temporal extension in marathon running, biathlon, triathlon, in cycle races such as the Tour de France, but a quality of extension where one has time and space for a welter of factors to impinge upon one's consciousness in the experience of the activity.

A recent incident may go some way to pointing out this interesting aspect in a literal way. At the 2004 Olympics the British runner Paula Radcliffe was the favourite for the marathon. She had posted the year's fastest times for 10,000 metres on the track and had recently smashed the world record for the marathon. Having struggled to control the pace, in heat that made even some African athletes retire earlier in the race, Radcliffe withdrew with only three miles to go to the finish, apparently in the knowledge that she would not win a medal. Clearly she suffered over the difficult, hilly terrain in exhausting heat. Mile after mile her face grew more contorted, more anguished. What were her thoughts over those miles, those hours and minutes as she considered personal failure, in the certain knowledge that she had blown her last and best chance to gain an Olympic gold? What contents of scathing introspection occupied her every stride? And just as one can experience emotion after the fact, what emotions fuelled her anticipation of the savage British sports press in the aftermath of what would be written as a national tragedy? Or as it was later written up, even in some of the most thoughtful quarters of the British media, not so much a national disgrace as a moment of personal egoism and cowardice. Robert Philip's (2004) article, entitled 'Radcliffe was a sore loser', was as

critical of the national press that supported Radcliffe as a heroine as he was of the athlete herself:

> The 'Tears of a Hero' proclaimed one headline alongside a picture of Paula Radcliffe. Well, if it's heroes you want, then I'll give you heroes: Japan's Mizuki Noguchi, who won the Olympic marathon, was a hero. So, too, was Briton Liz Yelling, who produced a late sprint to overtake Maria Abel, of Spain, in a photo-finish for 25th place. Nor should we forget her team-mate Tracey Morris, who ran in the same heat and up the same hills as Radcliffe to finish 29th only to be totally ignored by Fleet Street. And was there anyone more heroic than Mongolian Lursan Ikhundeg Otgonbayar, the 66th and last competitor across the line in the Panathanaiko Stadium, a full 30 minutes behind the woman in front and almost 1½ hours adrift of Noguchi? But no, it is poor, distraught, anguished, heroic (I could go on but you get the drift) Radcliffe sitting in a gutter by the side of the road on whom we are expected to bestow the laurel leaf for Olympic gallantry. Call me a cynic, but the way I see it is that unless the medics in Athens can come up with a physical reason why she quit just over three miles from the finish, Radcliffe stopped running and started blubbing for the simple reason that she had just seen gold, silver and bronze medals disappear into the distance. […] What most observers appear to have overlooked is that, yes, while there are only three medals on offer, every runner who completes any marathon course is a winner. Radcliffe – as brave, heroic, and dedicated as she might have proved herself to be in the past – was a loser on Sunday night and, judging by her reaction when she opted out of the race having conceded third place, a pretty sore loser at that.
>
> (Philip 2004)

What is striking in this appraisal is the adverbial quality that Philip imports to the appraisal of the athlete's character. Without knowing it, Philip has charged Radcliffe and held her to account for her suffering. He has judged her character through an emotional evaluation. Yet he has captured only a small part of the aetiology of her suffering – the anticipated failure. It might be argued that he himself has failed (on a monumental scale) to empathize with the athlete in her suffering before moving to his strong critique. The significance of the goal, the preparation of a lifetime, the realization of a lost dream, the estimation of one's fall from esteem (and then from grace) all seem to meet our criteria for suffering to the point that make her devastation comprehensible. For Philip, all that is perceived is a wallowing, egoistic pity. Now it might be held by others, properly, that Radcliffe's response lacked courage, that it was weak in some meaningful sense – but then that is not the position before us. It is clear that she experiences herself as suffering as she ran and eventually gave up. Ought she to have had this emotion? Is she entitled to the empathetic responses that are proper to the perception of a suffering one? These are the questions Philip fails to ask. Instead, he arrives too quickly at his conclusion: she is a shallow loser. For my own part, and based upon the analysis of suffering above, I think it makes every sense to see

Radcliffe as suffering and worthy of an aptly felt empathy. I do not say that this makes her a model of good character, one to be admired or envied, but simply one for whom we may feel, with justification, some considerable sadness.

To explore such suffering further – and our ethically responsible responses to it – we would need to evaluate the adverbial character of the emotion in a more compassionate manner. Precisely how does one suffer here? Is it wallowing in the failure to achieve one's expected goal? Is it more intense as one battles to dislocate one's sensory experiences, to dull the pain of chronic injuries or heat-driven distress? Again, these are only suggestions as to where we might meaningfully further explore suffering in sport.

A set of interesting questions remains that is located beyond the individualized phenomenological conception that we are naturally drawn to in the West. I take my cue here from the socio-theological writings of the Catholic intellectual and polymath Ivan Illich. Illich (1987) writes of 'communities of suffering'. It is an idea rich in possibilities for understanding the places of suffering in sport. Of course, this could refer to the suffering that is closely related to intense pain: the gym, weights room, the track, the pool. Commentators frequently remark on the camaraderie wrought by the masochistic mutuality of boxing, or the tacit acknowledgement of chronic neck and back pain suffered by front row players in rugby, or American footballers on the line of scrimmage, at the tight end, protecting the quarterback at the risk of life and limb.

If we eschew a model of emotion that is pejoratively characterized as mere moods, or as uncognitive – as feelings that visit rather like a thief in the night – it makes sense to ask questions regarding the history of suffering in sport. From whom do we learn to suffer? In what ways are we initiated into it? Do we embrace it as a friend or as an enemy? What coping strategies are authentic? Are such strategies for anti-suffering (such as withdrawal) somehow inauthentic? In what sense can coaches or team-mates or indeed opponents share in the suffering of others?

Suffering, sports medicine and the ethics of sport

Finally, there is a further set of Aristotelian-inspired ethical questions that we can ask in respect to the non-theological ethical significance of suffering under the physical and emotional aspects of the concept. Might there be virtuous responses to suffering? Could we think of the boxer, humiliated by his opponent, as acting courageously while he suffers? Or ought we to think of it as courage gone awry, as rash or reckless suffering? Is the boxer's suffering (especially when self-inflicted) in some sense wrenched from virtuous ends – and means? For virtue, if Aristotle is right, is always in the service of good ends. No amount of courage is to be thought of as bravery – a point that Philip might have borne in mind during his verbal laceration of Radcliffe. Should we think differently of Stoic suffering in the face of unbearable pain forced on us by another – a model of passive suffering? Lance Armstrong talks of precisely such a disposition in his account of cycling in the Tour de France, of making the other endure suffering. To what point do we admire the forbearance? At what point does it become pathological? Is the quality of suffering

conceptually relevant when that person is ourselves, pushing through the pain barrier, when we are active in the construction of our own suffering?

It seems best to think of suffering in sport in a teleological way. In medicine we suffer in rehabilitation. In Christian thought we suffer for redemption. What ends are served by suffering in and for sport? There will be no global answers here, only particular ones. But we are minded as philosophers to ask of coaches, players and physicians, especially in elite sports, a question put by Plato long ago: 'What limits should we observe in our efforts to improve our bodily performance and remove causes of suffering?' (Plato 407a).

In asking such a question, though not answering it, we would begin to challenge many myths in modern sport and sports medicine. There is a pressing need to understand the moral topography of sports medicine. Key to that challenge is the need to understand sports as well as sports medicine as social practices and, in particular, to uncover that which is often latent – the idea that medicine is merely a technical, unproblematic means to unquestioned (and unquestionably valuable) ends.[15] So when we talk of medical professionals and professionalization of sports, we need to ask: whose ethics? Surely there is no necessarily shared ethic between the doctors' cure, the physiotherapists' care, in relation to the players' careers. How this is both gendered and loaded – or not – with emotional content will be worthy of exploration and explanation.

Rather than asking whether the pain is positive or negative we might ask: what qualities attend the suffering? In what ways specifically do we suffer in sports? This requires us necessarily to arrange and argue about the adverbial qualities of our selves and our sufferings. These questions force us to deny the hegemony of physicalized, biomedically explainable pain as the paradigm of negative experiences in sport. They force us to take the social and emotional aspects of the emotion of suffering more seriously than hitherto has been the case. As Illich (1987) concluded:

> I am taking the liberty of speaking of suffering as the culturally shaped way of dealing with the shadow side of life rather than with its lighted, sunny side. I shall use the term suffering to indicate a particular socially and culturally acquired art of dealing with that shadow side, of bearing burdens which come with living. I'm speaking about the art of suffering. Pain is only one narrow, but very special, kind of condition in which one would properly need the art of suffering.

I hope, in the vein of these words, that I have at least offered a framework in which to consider suffering as an emotion loaded with ethical significance, and a minor agenda item for sports philosophers, physicians and practitioners alike.

Notes

1 First appeared in Loland, S., Skirstad, B. and Waddington, I. (eds) (2005) *Pain and Injury in Sport: Social and Ethical Analysis,* pp. 229–45, with the title 'Suffering in and for sport'.

2 On which see William's (1973) classic essay on the emotions.
3 According to Baron this position is not based on an accurate reading of Kant and should instead be called Kantian, but this is not the place for scholastic technicism.
4 I have argued against this conception elsewhere and elaborated the value of such virtues as trust and not mere rule-responsibility. See McNamee 1998.
5 I have attempted elsewhere to say more about the ethical significance of the emotions, and their place in a virtue-based ethics of sport (McNamee 2002a, 2003).
6 Specifically in the rationality of subjective guilt caused by the unintentional infliction of an injury to an opponent, see McNamee 2002a.
7 The point may be put more generally that the emotions, like virtues and vices, come in clusters. On which see Rorty 1980.
8 I have developed this point, and given a fuller account of the centrality of the concept of personhood in the contexts of sport and physical education in McNamee 1992.
9 See also Fry's (2006) chapter *passim*.
10 Of course, the mistake was made by philosophers for centuries, so this should not be thought of as a particularly damning criticism.
11 It is worth observing that so many people mistakenly believe that pain is somehow an inescapably private event that, in so far as it happens, can be only accessed and understood by the person in pain. This position was philosophically demolished in part by Ryle's famous attack on Cartesian dualism but also by Wittgenstein's private language argument about the social and learning contexts which demand a non-private reading of these types of experiences.
12 I am grateful to Martin Limpscombe for drawing my attention to this essay.
13 I am grateful to Steve Edwards for sharing with me his thoughts on suffering and also for alerting me to his critique of Cassell's account of suffering inter alia with which I am in general agreement. I merely revise his analysis in a minor way in what follows. I note that he refers to Cassell's criteria as the phenomenological and intactness conditions.
14 One might say here that Edwards has not embraced theodicy from the inside. But this is not the place to argue this point.
15 I am mindful that this is grist to the mill of anthropologists of sports medicine such as Howe and Waddington – part of their everyday discourses. Nevertheless, the ideas are typically ignored or pejoratively dismissed by biomedical scientists in sport.

9 Sport, physical activity and wellbeing

An objectivist proposal[1]

It is widely maintained that sport contributes to the development of young people's wellbeing. Sometimes the belief that sports contribute to good living is so strong that it is couched in the language of 'human rights' (Kidd and Donnelly 2000). This supposition was evident at the UNESCO-organized meeting of ministers responsible for Education and Sport in 2004, Athens, where numerous member state representatives were supportive of a proposal that physical education and sport be recognized as a 'fundamental human right'. A more modest and more readily defensible position was eventually agreed upon, stating that 'the development of physical education and sport is one of the most effective means of improving, inter alia, health, hygiene, the prevention of HIV/AIDS, and the overall well-being of individuals, in particular young people' (MINEPS IV 2004).

The more cautious conclusion drawn in Athens reflects an alternative mode of expression for the value of sport that is to be found not in the realms of policy discourse but in more fundamental arguments about the necessary conditions for human flourishing. According to this view, there are certain elements without which flourishing becomes impossible, and, it is argued, sporting activities offer distinctive ways to help realize such elements.

In light of the aforementioned claims, and notwithstanding their validity, it follows that the considerable body of evidence regarding inequitable access to sports participation should be a cause of concern (Sabo *et al.* 2004). Given that the promotion of wellbeing is an intrinsic feature of social justice (Powers and Faden 2006), and that social justice, in turn, is generally understood to be concerned with those dimensions of wellbeing that are of moral import precisely because they matter to everyone, it follows then that policy makers (whether in the context of education, health or social welfare) ought seriously to be concerned with the provisions of such opportunities. Moreover, the extent to which certain sections of society are deprived of these opportunities to engage in sport and physical activity, or are offered impoverished or partial provision, indicates that a significant ethical deficit has occurred.

This ethical deficit, however, cannot be properly considered by those who advocate, or merely adhere to the dominant model of wellbeing in physical activity research. Wellbeing within psychology research is typically understood as a subjective concept, dependent upon the individual's own assessment of how

well things are going and the presence of positive and negative affect (Eid and Larsen 2008). Exercise psychology research (predictably) focuses upon subjective states, and thus fails to fully articulate the value of physical activity to wellbeing. A fuller discussion of the value of sport and physical activity must extend beyond pleasure and satisfaction to consider what else is important in our lives. We, therefore, offer an objectivist proposal which is at odds with the dominant psychological model and the fashionable belief that human wellbeing rests entirely on the satisfaction of one's desires. This model broadens the discussion of the value of sport and physical activity to our lives. It also provides greater substance for sports educators, and indeed sports enthusiasts, to consider the benefits or outcomes of sport and physical activity.

The structure of the essay is as follows. We outline a common classification of theories of wellbeing. The distinction between objective and subjective theories we set out provides a framework in which we examine the approaches taken in mainstream psychology and exercise psychology research. Sport may indeed be enjoyable and pleasurable, but its contribution to good lives cannot be reduced to these experiences. We argue for a broader evaluative space within which to understand wellbeing, and the contribution of sport and physical activity. This reference to evaluative or conceptual space echoes Sen's (1993) critique of utilitarian and resource-driven conceptions of the human good and we utilize his capabilities approach to show an alternative perspective from which to argue for the value of sport and physical activity. We argue that this approach is superior to subjectivist approaches and the objectivist approaches based on biomedical or natural scientific models which tend to dominate health-based physical activity and sport policies. We do not go so far as to defend a specific theory of wellbeing. Our more modest aim here is to articulate a broader conceptual space within which to contemplate the value of sport and other forms of physical activity.

Theories of wellbeing: common classifications

The conceptual distinction between objective and subjective theories of wellbeing offers a useful starting point for critical analysis. A subjective theory of wellbeing suggests 'that being well-off will depend (in some way or other) on having a favorable attitude toward one's life (or some of its ingredients)' (Sumner 1996: 38). Subjective theories ensure that the efficacy of judgements of wellbeing properly rests under the dominion of the individual. Objective theories, by contrast, hold that certain values or goods are central to an agent's wellbeing regardless of his or her attitude toward them. This approach entails, as Arneson observes, 'that there is a fact of the matter as to what is prudentially valuable for a person, so that claims about what types of things are prudentially valuable are true or false, and thus can be mistaken' (Arneson 2009: 116). The 'agent sovereignty' (Arneson 2009) of subjective theories is replaced with a clear idea of what enhances a life, independent of the person's evaluative stance. Following well-known lines of demarcation in utilitarian scholarship, a further sub-classification of subjective theories is widely observed in the philosophical

literature between: (1) hedonistic; and (2) desire fulfillment theories of wellbeing.[2] 'Hedonistic' accounts are premised upon the view that what would be best for someone is what would make their life happiest and place greatest emphasis on the quality of personal experience. 'Desire fulfillment' theories of wellbeing focus on those things that would allow an individual to fulfil or satisfy their desires.

Subjective wellbeing: hedonism, sport and physical activity

Hedonistic theories equate wellbeing with a certain quality of felt experience. Subjective wellbeing, the prominent psychological approach to wellbeing initiated by Diener (1984: 198) should not, however, be interpreted as a hedonistic theory. Composed of a personal judgement of life satisfaction, alongside positive and negative affect (Diener *et al.* 1999; Eid and Larsen 2008), the life satisfaction domain, in particular, extends beyond an individual's experience. Someone may report satisfaction with a life relatively lacking in pleasure, or positive affect, but fulfiling in other non-hedonistic ways. Within the exercise psychology literature, however, this possibility is often overlooked and positive affect (very loosely conceived of as 'pleasurable experience') (Powers and Faden 2006) is afforded elevated status as an indicator of wellbeing. There is a plethora of literature concerned with sport and other physical activities' contribution to an individual's positive psychological states (see Biddle *et al.* 2000; Weinberg and Gould 2007; Biddle and Mutrie 2008). Indeed affect, and its relationship with exercise, has been the subject of rigorous methodological and theoretical debate (Ekkekakis and Petruzzello 1999; Ekkekakis, Hall, and Petruzzello 2005). Moreover, positive feelings like fun are frequently cited by teachers and coaches as primary goals in introducing young people to sport (O'Reilly *et al.* 2001; Garn and Cothran 2006). Of course, pleasure and positive affect associated with exercise are not insubstantial goods. Yet, considering the benefits of physical activity in terms of these positive psychological states, without a proper analysis of these states, or the values associated with them, appears to obscure non-hedonistic ways in which sport and physical activity might enhance our wellbeing.

First, pleasurable experiences do not necessarily contribute to one's wellbeing. Critics of hedonistic axiology object that a life of passivity and simulated experience is a life not worthy of human agency. This is the central point of Nozick's (1974) celebrated thought-experiment 'the experience machine': to reject 'plugging in' reflects the desire to be and to do certain things and not merely serially experience pleasant sensations (for an illustration of which in the contexts of sport and physical education, see McNamee 1992). In the same vein, Griffin refers to authenticity in the realm of friendship. This value does not enter into our experience but, Griffin argues, is preferred to more pleasurable (though inauthentic) alternatives:

> Even if I were surrounded by consummate actors able to give me sweet simulacra of love and affection, I should prefer the relatively bitter diet of

> their authentic reactions. And I should prefer it not because it would be morally better, or aesthetically better, or more noble, but because it would make a better life for me to live.
>
> (Griffin 1988: 9)

Griffin argues that the better life is one of authentic relationships, even if the delusions of friendship or simulacra generate greater pleasure. Sumner illustrates the preference at the core of this distinction (Sumner 2000). We are concerned with how things are, not just with mental states:

> If what you have treasured as an important ingredient of your well-being – your accomplishments, say, or your deep personal relations – turns out to have been an elaborate deception, you are likely to feel hurt and betrayed. How else to explain this, except to say that, at least in this area of your life, what mattered to you was not merely how things seemed but how they actually were? Your reaction to the deception certainly looks, and feels, like a reassessment, in the light of your own priorities, of how well your life has been going for you. And that seems to place it squarely within the domain of prudential value.
>
> (Sumner 2000: 6)

In the domain of sports it is rational to prefer the satisfaction of achieving a four-minute mile to the mere simulacra of such. This is not to deny that the simulacra has value, but that it is of lesser value since all that is experienced is the end state, shorn of the means that render it meaningful. Equally, we do not just want to feel accomplishment simpliciter. As Griffin notes, what we want is accomplishment and not merely the sense of it (Griffin 1988). Other things being equal, merely believing that running a 20-minute mile is an accomplishment to be proud of would be delusionary. There are necessarily supra-personal/individual standards as to what constitutes athletic accomplishments. Equally, veridical awareness will ordinarily be thought superior to delusionary happiness. At the risk of labouring the point, merely experiencing positive states does not necessarily prefigure elevated wellbeing. Thus, the heightened affect with which sport and physical activity is often associated is not a fail proof indicator of its value to the agent (its prudential value). The discipline and dedication required for successful sporting participation often requires the experience of harsh and unpleasant means to the desired end. But such means often render the achievement more meaningful or enduring. Hochstetler (2003: 232) rightly notes that '[p]art of understanding sport, then, is paying attention to the prose, the everyday, the arduous, the repetitive'. Sporting participation over a lifetime often entails doing many things we find dull, frustrating or even painful, both during training and in competition. Yet, this does not preclude their (potential) contribution to our wellbeing. The examples above indicate that we commonly pursue the less pleasurable options and embrace activities that are not necessarily 'pleasurable'. By contrast pleasant experiences may stand in need of further

values (such as authenticity, accomplishment and agency) if they are to contribute to our wellbeing more reliably.

An understanding of the values associated with certain sporting pleasures is a precursor to discriminating among them in order to get a grip on the ways in which they might enhance wellbeing. Some pleasures or satisfactions might be transitory and have limited relevance to our identity. Others might have longer-lasting benefit in terms of our wellbeing. Kupperman urges us to be wary of clocking up miles on the 'hedonic treadmill':

> The 'flow' experiences (of being caught up in exercise of skills) reported by Csikszentmihalyi's subjects also can be related to sense of self, especially when there is room to be proud of the skills involved; and these satisfactions too can be largely exempt from the hedonic treadmill.
>
> (Kupperman 2003: 26)

The 'hedonic treadmill' refers to a process of adaptation to enhanced satisfaction. Mere duration of an experience that is ordinarily perceived as pleasurable may well diminish over time (rather like economists' notion of 'diminishing marginal utility').

Satisfactions related to our sense of self may be of an extended duration, such as when engagement in sport requires the mastery of new skills. This point is interesting because it highlights the importance of the type of activity chosen and engaged in. There simply is more to offer in chess than in draughts just as there is more (potentially) to experience in baseball than T-ball (where there is no pitcher). It also, implicitly, cuts away the case for purely pleasurable experiences, with its emphasis on meaningful activities and the learning of new skills.

A further difficulty with hedonistic theories in this context concerns the association (or, worse, reduction) of sport and physical activity with (or to) fun. This may indeed be preferable to a 'win at all costs' approach, as Austin (2007) observes. And there may be times in the sport life cycle where (as a coach or teacher) one's focus is primarily on the fun young participants experience. But, with respect to sporting careers, something is clearly missed if one's participation is arrested with the playful engagement of the activity (or component thereof) to the neglect of the pursuit of victory. Many authors have noted sport's potential for ethical development but it is not at all clear how this value will be served by an exclusive focus on fun. In light of the analysis above, we also suggest that to focus on certain forms of pleasant experience, such as fun, may well foreclose other satisfactions associated with exercise, play, games and sports. The value of effort and mastery to be found in sport will typically be associated with non-hedonic means such as perseverance and tenacity. None of this should be taken to mean that sport experiences ought not be felt to be positive and enjoyable by the learner. Nor should it be taken to imply that educational lessons ought not be experienced as rewarding or fun. It is merely that such feelings alone cannot provide an adequate basis for justifying the value of sport and physical activity or explaining its contribution to wellbeing. A more robust case is needed. To

that end we now consider a modified subjective account in terms of desire fulfillment.

Subjective wellbeing: desire fulfillment, sport and physical activity

It would be somewhat unfair to suggest that the vast psychological research addressing the benefits of physical activity is confined to its 'feel-good' effects in narrow hedonistic terms. Biddle and Mutrie review evidence that physical activity is perceived as enjoyable and enhances physical self-perception and self-esteem (Biddle and Mutrie 2008). We accept that these subjective assessments have an important part to play in our wellbeing. This section will, however, seek to question whether a favourable subjective evaluation of an activity, whether in terms of its enjoyment or its contribution to some form of positive self-perception is sufficient (or indeed necessary) for the enhancement of one's wellbeing. The limitations of desire theories of wellbeing will provide a clear indication as to the fallibility of our judgements in this domain. While hedonistic theories concern the quality of an individual's experience, desire theories of wellbeing need not concern experience at all. As Sumner observes 'a desire theory is a state-of-the-world theory, since the actual occurrence of a desired state of affairs is one necessary condition of the analysis' (Sumner 1996: 128).

Desire fulfillment theories claim that life goes well when one's desires are satisfied. A difficulty with this sort of perspective is that it is easy to conceive of an instance in which one's desires might not bear at all on their wellbeing or indeed be detrimental to it. Rawls (1971) famously imagined a person who, having reflected on alternatives, decides to spend as much time as possible counting blades of grass in city parks. If that seems implausible, consider, instead, someone 'glued' to a television set, or to a computer game, or countless other activities that seem impossible to equate with a flourishing, fulfilling life. Other examples of desire fulfillment bring into sharp relief the potential problems of desire fulfillment theories. Consider the case of an individual whose desires lead to actions that are actually harmful to their wellbeing, such as those resulting in eating disorders or exercise-dependence. Those who radically misperceive their body shape (see Loumidis and Wells 2001) and/or deny their exercise-dependency clearly act in ways that they subjectively deem contributive to their wellbeing. The palpable fact that we recognize erroneous misperception or judgement suggests something more objective, over and above the mere satisfaction of desires. This immediately raises another problem with desire fulfillment theories of wellbeing, at least with regard to scope. Even if we are inclined to accept an adult's judgement about his or her interests, we would be foolish to extend this to children.

There is a further difficulty with desire fulfillment theories of wellbeing. Actual desires are highly malleable. One consequence of this phenomenon, referred to as 'adaptive preference formation' (Nussbaum 1999), has attracted considerable attention from a range of social scientists. The philosopher-economist Sen (1999) has shown how people's assessments of the quality of their lives are

mediated by identities, norms and institutions. Nussbaum develops this point when she argues that women in particular often find their options constricted by notions of obligation and legitimacy, which affect the decisions they feel that they are able to make. Thus, it is that women's perceptions of themselves are largely constituted by the circumstances before them, and, as Annas puts it, in a society where women have fewer options, they settle for less (Annas 1993). The point is often made about the conceptual limitation of negative freedom (i.e. freedom from interference): thus, one finds oneself freer, other things being equal, by wanting to do nothing. In so far as one wants to do nothing one may encounter fewer obstacles in the pursuit of one's goals. Moreover, as Williams (1985) argues, there is something rather fishy about this conceptualization of freedom. Likewise, then, for desire-satisfaction models of wellbeing, the less one desires in life the less one is frustrated. So as the comic slogan goes: 'Achieve all your goals! Aim low'. The process of adaptive preference is not necessarily or even typically a conscious act, as norms and expectations become internalized. The privileged quickly become accustomed to their wealth and opportunity; the marginalized frequently adapt their expectations and desires to the lower level of life they are accustomed to. How can they demand fundamental elements of wellbeing if they are unaware that they exist? (Nussbaum 1999).

How do these ideas impinge on our consideration of physical activities and wellbeing? Familiar subjective assessments of the value of an activity, 'it is enjoyable', 'it does me good', or 'it makes me feel better about myself' do not guarantee the enhancement of wellbeing. The point regarding adaptive preference formation is especially salient in terms of youth sport. Youth soccer in Britain is renowned for its competitive nature, and the recent Football Association campaign 'Respect',[3] is in part a response to the inappropriate ethos to be found there (one which mimics the highest levels of the professional game). Calls have been made for those in youth soccer to place less emphasis upon result and power, and a greater emphasis on skill and technique.[4] Strategies may include, for example, distributing the better players throughout A and B teams, rather than having one elite squad, or encouraging a shorter passing game, even though the more efficient means to a winning result might be long hopeful balls latched onto by the bigger, faster player. Coaches may resist this on the grounds that the players' enjoyment would be compromised by failing to employ the best route for success. 'The players ultimately enjoy winning and that is what we are here to do', the argument goes. In the intense atmosphere that is the product of this narrow mindset, the players may pursue winning to the exclusion of other goods, following the norms laid down by coaches and reinforced by pushy parents, but it is a moot point whether this preference is one that has been formed autonomously.

Nussbaum argues in the realm of development, that a list of central capabilities necessary for a life to be deemed 'fully human' enables us to understand when a preference is both adaptive and destructive. In the sports arena, broadening an understanding of the value of physical activity beyond the subjective, to consider certain values or capabilities that sport and physical activity supports, might help us to question destructive behaviours even when they are accompanied by time-

specific subjective endorsement.[5] What of instances in which an individual fails to endorse a value or good as contributive of their wellbeing? Can we also conclude that such judgements are flawed, and thus that wellbeing can be enhanced in the absence of subjective endorsement? This question, in essence, goes to the heart of an objective theory of wellbeing, which advocates that certain goods, values or capabilities are constitutive of wellbeing regardless of our attitude toward them. In the main, goods such as friendship, play or self-expression will be endorsed by an individual. In exceptional instances in which such endorsement is absent however, it seems perfectly feasible that life may be enhanced by their achievement. Consider Arneson's example:

> Suppose Samantha writes a brilliant poem but denies that this achievement has any value or in any way enhances her life. Her ground for this dismissal is a shallow and silly aesthetic theory which she has thoughtlessly embraced. In these circumstances, her failure to endorse her achievement does not negate its value for her.
>
> (Arneson 2009: 136)

Arneson acknowledges that life may be improved further by endorsement of the accomplishment, experiencing pleasure in succeeding or achieving some relevant standard (Arneson 2009). Can this point be squared with the idea that wellbeing can be improved in the absence of endorsement of a value attained? Certainly, life goes better if one both fully understands the significance of an accomplishment and enjoys it. Subjective attitudes are not unconnected to wellbeing. It is not necessary, however, for the achievement of a value such as accomplishment to be endorsed, or enjoyed, in order for wellbeing to be enhanced.

Wellbeing, sport and physical activity: a positive account

Psychological research on wellbeing has focused exclusively on subjective states. These include the elevation of mood (Biddle 2000) and enhanced self-esteem (Fox 2000). While of importance in terms of both wellbeing and prolonged participation, we have argued that this focus prevents a fuller analysis of the value of physical activity to our wellbeing. We have also argued that the role of pleasure in wellbeing cannot be understood in isolation, but requires an understanding of the values associated with it. Nor can subjective states and evaluations be assumed to have veracity; indeed they may be flawed indicators of how well our lives are going. Our critique supports a conception of value independent of subjective evaluations, within which to contemplate both wellbeing, and the value of physical activity. Nevertheless, we do not wish to endorse every conception of objective wellbeing. The form of objectivism offered in biomedical accounts, for example, restricts the 'conceptual space' in which to consider the value of physical activity to wellbeing.

Here, the value of physical activity is reduced to disease-prevention and the maintenance or enhancement of physical function. The 'objectivism' on offer

here relies upon the scientific, apparently 'value free' categories of health, disease and illness. We will not offer an extensive argument for a normative conception of health or disease. Yet these normative approaches to health, such as Nordenfelt's can help to contribute to a better understanding of the value of physical activity (Nordenfelt 2007).

Nordenfelt defines health in terms of our bodily and mental ability to achieve our vital goals (for full definition, see Nordenfelt 2007: 54, and his earlier book *On the Nature of Health*, 1987). Ideas of health and in turn disease and illness are shaped by conceptions of our central ends. Diseases represent a frustration of these central ends, they are not significant purely as natural events, as Sedgwick (1982) observes. This view departs from the positivistic objectivism implicit in biomedical accounts of the value of exercise to wellbeing. This biomedical type of account, though it may contribute to an overall understanding of the value of physical activities to wellbeing, is as narrow and one-sided as the subjectivists'. What might a third way look like?

As we have noted, there are echoes of the pioneering work of Sen in arguing for an alternative conceptual space within which to understand wellbeing. Sen conceives of 'the state of being happy as one among several objects of value' (1993: 48). As we have seen he refers to the propensity of those in poverty to adapt as an indication that ratings of subjective satisfaction, or actual desire fulfillment theories of wellbeing, are flawed. He also argues against development being monitored according to resources or a Rawlsian notion of primary goods. Sen encourages a consideration of those 'basic ends' (Sen 1993: 41) that are served by these goods or resources. In terms of physical activity and its contribution to our wellbeing, it is our contention that the debate must be extended to include objective values. Both subjective accounts of wellbeing and the biomedical case for the value of physical activity, at their most convincing, assume certain central ends. Nevertheless, the value of these ends ought not be reduced to either subjective experience or desire fulfillment. We will now turn to examine theories of wellbeing better equipped to respond to the objections presented above. As we have noted, it is not our intention to substantively articulate or defend one particular theory of wellbeing, but to indicate that objective theories offer a better framework within which to understand the value of physical activity.

How might an objective conception better understand the value of sport and physical activity?

A plethora of objective lists of the elements of wellbeing have been published (Gasper 2004). Some choose to use alternative terminology; Nussbaum, for example, refers to the idea of a 'fully' or 'truly human life'. The 'capabilities approach' developed by both Sen (1993, 1999) and Nussbaum (1999, 2000) though in differing directions, remains one of the best-known theories of the human good. As noted above, capabilities refer to what people are able to 'do or be in leading a life' (Sen 1993: 31), as opposed to their levels of satisfaction, or the resources at their disposal. For Nussbaum, capability concerns our freedom to

function in those valuable ways stipulated on a list of 'central human functional capabilities' (Nussbaum 1999: 78). The capabilities listed are: life; bodily health; bodily integrity; senses, imagination and thought; emotions; practical reason; affiliation; other species; play; control over one's environment. A threshold level of all the capabilities must be reached for a life to be called fully human. This list of capabilities clearly distinguishes between the pleasure or satisfaction with which a capability may be associated and the capability itself. Nussbaum's theory is designed for application in the field of human development, and this substantive list becomes an important critical tool when people are found to be lacking in such capabilities, even in the absence of dissatisfaction or low levels of utility. A list of values or capabilities, a threshold level of which are essential for a fully human life, may also provide some insight as to the value of sport.

As an example let us consider Nussbaum's fourth capability 'senses, imagination and thought'. For Nussbaum this capability includes '[b]eing able to use imagination and thought in connection with experiencing and producing self-expressive works' (Nussbaum 1999: 78). In explaining this capability further, Nussbaum also refers to freedom of expression and searching for the meaning of life in one's own way, as well as to pleasurable experiences and the avoidance of 'non-necessary pain' (Nussbaum, 2000: 78). Nussbaum thus makes room for subjective experiences within this 'list theory'. It is remarked that education is essential for the truly human use of these faculties. Not all forms of physical activity will instantiate the demands of this capability. While skipping or step-aerobics may contribute to wellbeing on biomedical or subjectivist accounts they cannot develop this capability owing to the thinness of their cognitive repertoire. But modern sports and thicker forms of physical activity represent one way of functioning in these valuable ways. Advanced players in games such as football speak of expressing themselves. Many of them find in developing bodily control and awareness, in mastering skills and moving with economy and ease through a challenging movement sequence, in appreciating and developing game intelligence, a joyful and deeply rewarding experience. Sports, when they move beyond mindless drilling and conditioning, may also be understood as developing the capabilities of sense, imagination and thought. Physical activities certainly represent one way in which the whole person can be understood as expressing oneself, as in dance, tai chi or yoga, for example. Note this is not to say the everyday drudgery that is part of the life of every serious athlete is not without value. Merely that it will not contribute to this particular capability, which is constitutive of wellbeing.

Nussbaum also includes 'play' on her list of central capabilities. Play is closely related to the enjoyment and satisfaction with which it is associated; indeed it is not uncommon for the value of play to be described solely in these subjective terms. Thus, examining the contribution of playful activities, including sport and physical activity, to our wellbeing is an interesting test case. Do playful activities contribute to our wellbeing independent of the enjoyment and pleasure with which they are associated? Griffin, in developing his own theory of wellbeing, does not consider 'play' to warrant a category in its own right preferring to include it within

the broader category of enjoyment (Griffin 1988). This reduction could be challenged with reference to earlier arguments. Playing games (for example, football or chess) may not always be enjoyable but may be of broader value to our lives. They may represent genuine accomplishments, achieved via determination and perseverance, for example. Play, however, does not seem to require accomplishment of some kind to ensure its value. Indeed to focus upon this aspect might be to distort the value of play itself. A description of play is necessary to ensure that we do not depart too far from the genuinely accepted use of the term itself, in arguing for its value apart from subjective states:

> Summing up the formal characteristics of play we might call it a free activity standing quite consciously outside 'ordinary' life as being 'not serious', but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained from it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means.
>
> (Huizinga 2010: 132)

Huizinga's definition at least seems to leave open the possibility that a playful activity need not necessarily be experienced as pleasurable. Tasioulas points out that certain types of play (paradigmatically: sports) have at their core a tension, and require exertion both physically and mentally (Tasioulas 2010). In certain instances this might mean that enjoying them during participation is particularly difficult. This, however, need not negate their value. Such activities – aiming at forms of excellence – might still entail the mastery of new skills, being absorbed in a creative activity, expressing oneself. To consider the value of play one need not necessarily fall back on subjective explanations. What such explanations do indicate, however, is the interrelated nature of the values that are likely to form an objective list of the constituents of wellbeing. Explaining the value of play seems to draw at least partly from other values on such a list. Many types of play are enjoyed, and that enjoyment, for games without a challenging component, would be the main reason for participation. In certain instances, however, and sports provide a good example, certain other characteristics may take precedence.

Huizinga's characterization offers a starting point from which to examine the features of play, and how they might be of value to a life, even when the activity is not enjoyed. A further reason for Nussbaum's inclusion of play as a central capability relates to the overarching aim of her theory. Nussbaum's list is politically motivated, providing a means for judging the success of those in power in ensuring a level of capability for its citizens. If enjoyment was proposed as a central capability within Nussbaum's approach it would be far from clear how any government obligation to provide it could be met. The capacity for enjoyment is universal, those in power might respond; yet we scarcely need a postmodernist to inform us that we all enjoy different things. Including the capability play, rather

than referring to enjoyment, guides policy to a greater extent, encouraging the provision of facilities for physical activities as well as for other games for those of a range of ages. Play seems to suggest a certain range of activities, it certainly does not encompass all that we enjoy, but represents a type of activity central to a fully human life, according to Nussbaum.

This need not only be a pragmatic point. Consider again the example of youth soccer, where there appears potential for an overemphasis upon the result to threaten other values with which the activity might be associated. Sport may be enjoyed in a range of ways, but as we have suggested, the presence of subjective endorsements may not necessarily guarantee its value. Even in the case that an overcompetitive ethos, at the expense of other aspects of the game, does not seem to detract from the players' enjoyment, we may still question whether such an approach is appropriate. It can be argued that sport in this form should still retain a playful aspect. One might point to canonical accounts of play such as Huizinga (2010) to further illuminate this case. Indeed, an objective list theory allows proponents to vigorously defend such values as play, creativity and self-expression as essential to a flourishing life, and therefore as important aspects of activities such as sport if they are to positively contribute to our lives. The more general point here is that a theory that is founded on goods deemed constitutive of wellbeing, independent of the enjoyment or pleasure with which those goods are associated, provides fertile ground for debate over the future form of sport.

Of course, defending a particular form of an objective list, the reason for the inclusion and exclusion of certain values is another problem altogether, and one that is beyond the bounds of this chapter. Nevertheless, to debate the values constitutive of wellbeing and how activities such as sport might best serve such values is a worthwhile process. Alternatively, an insistence that wellbeing is a purely subjective matter, a combination of life satisfaction and pleasure seems not to advance the debate, nor cohere with how we often reason about our own wellbeing, and the form of those activities so central to our lives. As Griffin (1988) points out, we often subject our own desires to critical reflection, as well as the desires and decisions of others. We ask whether the actions of individuals are actually in their best interest, whether we ourselves have acted for, or against our own good. We may also question whether a sport in its current form continues to represent the values we hold dear, or whether it has departed from them. A firm commitment to a subjective conception of wellbeing attempts to restrict the debate in a fashion inconsistent with present modes of critical reflection. Nussbaum's list of capabilities offers scope to assess the value of activities to our lives. Sport and physical activities constitutive of wellbeing will instantiate functionings related to these capabilities, such as self-expression. The contribution of sports and physical activities to a life may well include the pleasure and enjoyment with which they are often associated, but the list encourages us to consider other ways in which sports are of value to our lives. Additionally, the notion of capability itself might encourage us to consider a more integral role for sport and physical activity in the good life. Play in its physical forms may in certain instances contribute to our health. (Not all sports activities, however, should be thought of as necessarily

health promoting, consider the negative health implications that may result from high-level participation.) Health can be understood as a foundational capability in the sense that a certain threshold level of health is required to pursue those other values central to a flourishing life. In this sense we might offer a stronger argument for certain forms of active play, or other physical activities, as one of a limited number of ways of enhancing the foundational capability of health. In some ways this aside echoes the biomedical account that often considers the benefits of physical activity in terms of physical function. It differs, of course, in locating such an account within a normative understanding of health as the ability to pursue those goals and values central to wellbeing.

There are, however, certain limitations of objective accounts or list theories of wellbeing. The most obvious, and perhaps most important, question is how are such lists generated? Modernist critics from a range of backgrounds typically reject the possibility of monolithic objective accounts of the good life whether Platonic or otherwise. In her defence, it should be noted that Nussbaum (2000) does not dream up her list from the philosopher's favourite vantage point: the armchair. Rather, she proposes that her list represents 'the result of years of cross-cultural discussion and subsequent modification' (Nussbaum 2000: 76) and that it must always be open to revision.[6] In responding to the common accusation of paternalism in respect of objective list-makers, Nussbaum also argues for capability provision, freedom to flourish, rather than hierarchical models of governmental policies to promote predetermined functionings.

The defence of an objective list is a difficult and contentious issue, well beyond the aims of this limited discussion. Nussbaum's use of question-begging language, the 'truly' and 'fully human' life, sits uncomfortably with those anxious that groups are not excluded from good lives by fiat. In her defence, Nussbaum argues that the employment of a list, however, is precisely to ensure that these capabilities are entitlements for all, even the poor who do not express dissatisfaction at their lot,[7] and that the list provides strong obligation for governments to facilitate capability for such groups. In Popperian fashion, she maintains that it is important for such lists to be thought of as perennially revisable in the light of new evidence or developments.

Being concerned here with an analysis of the value of sport and physical activity to wellbeing we will not dwell further on matters of justification, but return to the question of whether sports and certain physical activities may contribute to the capabilities central to human wellbeing. Our conclusion at this stage appears somewhat tentative and perhaps even disappointing. On the one hand, sport and physical activity in certain forms will instantiate those goods on an objective list and may be seen as one significant way of preserving the physical activity to pursue such goods. Considering the value of sport in terms of objective values has suggested that sport itself might offer greater potential for fulfilling such values than thinner physical activities that might be equal in calorific expenditure, but not so in the range of values and challenges they present. On the other hand, however, we should indicate that sport itself can also threaten those values on an objective list. Exclusive focus on a sporting career might be at the

expense of a balanced life. Authoritarian coaches, for example, might restrict an athlete's scope for self-expression or other aspects of autonomous choice. Again, however, an objective list provides the tools to criticize such instances, even if the dissatisfaction of the individuals involved is not obvious or even evident.

All this talk of the values on an objective list, however, can lead to the somewhat misleading picture of the individual or athlete in this context looking to secure abstract values such as play, accomplishment or self-expression. Sport, of course, should not be viewed merely as a vessel for these abstract values. We should not understand sports or physical activity solely as neutral means to goods on an objective list. Sport and exercise do not simply represent any old way in which such values might be realized. Midgley (1974) insists upon this point. We should not, she argues, understand games and indeed love in terms of general needs, disregarding the form they take:

> The restraining rules are not something foreign to the needs or emotions involved, they are simply the shape which the desired activity takes. The chess player's desire is not a desire for general abstract intellectual activity, curbed and frustrated by a particular set of rules. It is a desire for a particular kind of intellectual activity, whose channel is the rules of chess. (Similarly human love is not a general need, curbed and frustrated by the particular forms offered to it. It is a need for a specific kind of relation – say a permanent one – with a particular person, and for this purpose only some kinds of behavior will do.)
>
> (Midgley 1974: 243)

Midgley's insistence that games should not be understood as merely a vessel for the realization of general values is borne out of her dismissal of the idea that games are closed off from the rest of society. And in this she is of course echoing a theme considered at length by Huizinga (2010). For Midgley (1974: 337) games are 'continuous with the life around them', and the needs these games represent reflect our context. Our motives for participating are not general, but for the satisfaction of a very particular need for a very particular type of game:

> In the case of football or chess, to treat the traditional concern as accidental would mean that it could just as well be attached to something else; that the pattern of life surrounding them demands some game, but is quite indifferent what game it is. Well then, we will try substituting halma for chess and lawn tennis for football. Will there be any difficulties? There will. These rituals will not be suitable forms for the conflicts they are designed to ritualize.
>
> (Midgley 1974: 237)

We will not concern ourselves here with whether ritualized conflict is the only or indeed the best way in which to understand the development of games such as football. Midgley speaks of needs but let us now bring the discussion back to our example of Nussbaum's capabilities and functionings, needs in the sense that they

are deemed necessary for a life to be fully human (Nussbaum 2000). Sports and various forms of physical activity are not vanilla means to a general sort of capability or functioning, but represent specific ways in which we might realize capabilities.

Indeed Nussbaum intends her list to be more fully specified, she refers to its 'multiple realizability: its members can be more concretely specified in accordance with local beliefs and circumstances' (Nussbaum 2000: 77). The capabilities and functionings on the list are very general categories that do not exhaust the ways in which we should understand the activities that instantiate them. Sport and exercise are of course not the only ways in which we find pleasure, joy or indeed feel able to express ourselves. They will share family resemblances with other forms of expressive behaviour. And like all such cultural forms, they represent variegated ways in which to achieve a very specific form of such values, ways developed from the context and history within which they are situated.

Conclusion: objectivist wellbeing, agency and advocacy

We have argued here that sport and physical activity can make a significant and distinctive contribution to individual wellbeing. Beyond their frequently cited biomedically couched benefits and their characterization as a source of pleasure and enjoyment, sports and certain forms of physical activity can play a role as valuable sources and features of a fulfilling life. We have critically questioned traditional associations of wellbeing with positive hedonic experiences and the satisfaction of desires, in favour of a more objective, supra-personal account. This account is based on a notion of capabilities that is universal and that focuses on what is common to humanity. In Nussbaum's terms, 'it begins with the human being: with the capabilities and needs that join all humans, across barriers of gender and class and race and nation' (Nussbaum 1995: 61). Equally, health-promoting forms of sport and physical activity will also preserve the physical pre-conditions of valuable functioning, facilitating our pursuit of the good life. Sports and certain physical activity structured properly, we contend, will reflect human need for very specific instantiations of those values central to our wellbeing.

Notes

1 First appeared in *Sport, Education and Society* (2012), 17(4), 497–514, with the title 'Sport, physical activity and well-being: An objectivist proposal', co-authored with R. P. Bailey, and A. Bloodworth.
2 See for example, Parfit (1984) who classifies theories of wellbeing in terms of objective, hedonistic and desire theories.
3 The programme is a Football Association initiative aimed to address unacceptable behaviour both on and off the pitch in light of substantial numbers of referees quitting, and young players dropping out. See www.thefa.com/Leagues/Respect.aspx
4 See for example 'Sir Trevor Brooking facing some tough calls to kick some sense into our game' (www.timesonline.co.uk/tol/sport/football/article2971538.ece) and Trevor Brooking: 'Youngsters are just not skilful enough' (www.independent.co.uk/sport/football/premier-league/trevor-brooking-youngsters-are-justnot-skilful-enough-445713.html).

5 As Austin observes, keeping score may help foster 'athletic and moral excellence' (Austin 2007: 144). Our observation here is that to focus upon result to the exclusion of such excellences has little long-term benefit for the sport itself, or indeed for the young player.
6 Though this is not the place for specific philosophical objections see, for example, Pogge (2002).
7 Nussbaum fleshes out her account in subsequent writings (see, for example, Nussbaum 2001, 2003, 2006a, 2006b).

10 Investigating eating disorders in elite gymnasts

Conceptual, ethical and methodological issues[1]

Introduction

Disordered eating behaviour, amenorrhea and osteoporosis, referred to as the 'female athlete triad', are common in elite female athletes (Birch 2005; Otis *et al.* 1997: 199). The 'female athlete triad' is particularly prevalent among adolescents competing or training intensively in dance and sports that emphasize the traditional aesthetic criteria of slenderness (Abraham 1996a, 1996b; Garner and Garfinkel 2009; Sundgot-Borgen 1994, 1996; Sundgot-Borgen and Torstveit 2004). Male elite athletes are also more vulnerable to eating disorders than males in the general population (Baum 2006; Riebl *et al.* 2007). For male elite athletes, the high-risk sports fall into the same categories as for females: aesthetic sports, sports in which low body fat is advantageous, such as cross-country and marathon running, and sports in which there is a need to 'make weight', including wrestling and horse racing (Baum 2006).

In light of this it is unsurprising that the reported prevalence of eating disorders and subclinical eating disorder symptoms in elite athletes/dancers (13–16 per cent) is higher than that for the general population (Beals and Manore 1994; Hulley and Hill 2001; Ravaldi *et al.* 2003; Sundgot-Borgen and Torstveit 2004). A study of the entire elite athlete population of Norway found that 13.5 per cent of elite athletes had subclinical or clinical eating disorders compared to 4.6 per cent in controls (Sundgot-Borgen and Torstveit 2004).

There are several forms of eating disorders that are commonly associated with depression and low self-esteem (Berkman *et al.* 2007; Steinhausen 2002). Anorexia nervosa is characterized by low body weight, overvaluing of thinness, preoccupation with weight and body shape, deliberate weight loss and hormonal changes (American Psychiatric Association 2000a; WHO 1994a). Bulimia nervosa is characterized by a binging and purging behaviour and a preoccupation with weight and shape (American Psychiatric Association 2000b; WHO 1994b). In addition to those who fulfil diagnostic criteria for an eating disorder, a much larger number suffer from subthreshold forms of eating disorders (Bulik *et al.* 2005; Wade *et al.* 2006).

There is increasing concern amongst sports organizations regarding eating disorders because of their impact on physical and emotional health and wellbeing

(International Olympic Committee Medical Commission Working Group Women in Sport 2005; UK Sport 2007). The 2012 Olympics has brought to the fore concerns with ethical issues in sport with regard to regulation, enhancement and protection of young athletes. Balancing the desire for national success in this arena with concerns about the health and wellbeing of young athletes is one that has increasingly occupied professional bodies. The prevalence and significance of eating disorders raise ethical issues regarding the responsibilities of sports governing organizations towards their athletes (particularly legal minors), including whether they should be imposing sanctions and preventing athletes from competing, in order to protect their health and motivate them to engage with treatment. Guidelines are in the process of being formulated in order to deal with eating disorders and the 'female athlete triad' (International Olympic Committee Medical Commission Working Group Women in Sport 2005; UK Sport 2007).

Ethical and developmental issues in eating disorders in elite gymnastics

Elite gymnastics is a relatively closed and stable setting where gymnasts generally reach the peak of their powers in adolescence or very early adulthood and retire by their mid-twenties. This means that the majority of elite gymnasts train intensively during childhood and adolescence, when the risk for eating disorders is at its highest (Halmi 2009).

Eating disorders have been associated with cognitive styles orientated towards perfectionism and low self-esteem. These personality traits have been described as particular risk factors for anorexia nervosa (Evans *et al.* 2004; Fairburn *et al.* 1999; Vitousek and Manke 1994). People with eating disorders often have a strong drive to succeed, which aids them in their goals regarding weight loss; they may also find eating disorders functional where 'lightness' eases the physical burden on team members (e.g. in acrobatics) or where aesthetic considerations (diving; ski-jumping) like slimness and symmetry apply (Serpell and Treasure 2002; Serpell *et al.* 1999). In elite sports environments, therefore, an eating disorder might help maintain weight at a level which is perceived to be conducive to good performance. People who suffer from anorexia nervosa may value thinness above all other things including life (Tan *et al.* 2006). It can influence identity, as conceptions of the self become inextricably bound with the disorder. This is particularly concerning if young persons develop a long-standing eating disorder in early adolescence, prior to the formation of a mature and stable sense of self-identity (Tan, Hope and Stewart 2003).

Given the young age at which gymnasts enter elite performance training and the aesthetic and strength-based demands of competitive gymnastics, there may be particular risks to elite gymnasts of developing eating disorders. At the same time, the elite sports environment is markedly different from non-elite sport populations. Preventative and supportive measures formulated for the general population are not sufficiently focused or relevant in elite sports contexts. There is a need, therefore, to look beyond data and descriptions of eating disorders in

individual athletes, and to explore the ethos within the elite gymnastics environment and how this affects relationships, identity, autonomy, body image and self-esteem, which are relevant to those disorders. There is also a need to understand how eating disorders are understood within the world of elite gymnastics and how they (and their subclinical variants) are managed by athletes, coaches and sports organizations/federations. It is only when these factors are better understood that holistic strategies can be put in place.

Research concerned with eating disorders in elite gymnasts might utilize a range of research methods. Questionnaires can be used to assess prevalence, attitudes towards eating, depression and low self-esteem, the latter two both associated with eating disorders (Berkman *et al.* 2007; Steinhausen 2002). Semi-structured interviews may also be employed to further probe attitudes and investigate the more general ethos of the sport. Research with this broad focus will involve a range of conceptual and research ethics issues, important in balancing the interests of research with the particular needs of research participants in this context. We address these below.

Conceptual issues: investigating eating disorders in elite gymnasts

Autonomy, eating disorders and elite sports

Autonomy, understood as the freedom to make one's own informed choices, is a contested concept within philosophical and medical ethics literatures. Authors stress different features of the concept such as the capacity to make choices as an individual from a detached and rational position (Kant 1785 [1997]), to the ability to express oneself within the context of supportive relationships (O'Neill 2002).

Anorexia nervosa can restrict autonomy by making people feel unable to choose to accept treatment, and it also causes battles with significant others who might assist decision making (e.g. parents, health professionals) because their control of events is threatened (Tan *et al.* 2003; Vandereycken 1993).

Elite sports cultures have a tradition of being both paternalistic and authoritarian, with high levels of external control of elite sportsmen and women (Brackenridge 2001; Shogan 1999). Historically, the elite sports environment has fostered and sustained heteronomy, particularly towards girls and young women (Brackenridge 2001), and intense and trusting relationships form between athletes and trainers (McNamee 2008). A similar ethos can be found in ballet, which has a similar milieu concerning aesthetic and physical demands, where dancers have been found to give their bodies over to be painfully moulded by their dance teachers (Pickard 2007).

In healthcare settings, the pursuit of extreme thinness is not seen as healthy and is categorized as a mental disorder when severe. In elite sports, however, similar attitudes and behaviours may be normalized or even viewed as functional or positive. Elite athletes are held up as role models of achievement and 'good' living (Department of Health 2009). Paradoxically, eating disorders may be

valued by elite adolescent athletes, despite the stigma of mental disorder, for the advantages they bestow or as the price to be paid for success. There is some indirect evidence to support this attitude, as studies suggest higher performing athletes have more features of eating disorders (Abraham 1996a; Weight and Noakes 1987).

In the context of this type of research, debates over the autonomy of athletes are likely to arise. First, consider the generally accepted research ethics point, that confidentiality and anonymity will be limited by a duty of care both to the athlete being interviewed and to others. Research exploring the ethical and sociological aspects of eating disorders may utilize a range of research methods. Questionnaires might provide an indication of prevalence and may even request some physical data. Interviews will allow exploration of the broader sporting environment, along with a more detailed (but of course careful) exploration of the gymnast's own relationship with food. Having analysed data derived from these methods, or indeed while in the midst of conducting the interview, researchers may suspect a problematic or even disordered attitude towards food and eating. If this perceived problem is deemed significant enough they may consider informing others of this.

This difficult task of assessing risk, to be discussed in more depth later, may suit the specialist skills of a healthcare professional. Thus having a healthcare professional in all interviews and in the research field at all times may be beneficial in reaching a decision as to whether the normal constraints of anonymity and confidentiality should be breached. It should be noted however, that neither the information derived from questionnaires, or research interviews, is likely to provide sufficient information required for a diagnosis to be made. Researchers conducting the interview may probe an issue, to get further information regarding the potential risk to the individual, or the extent to which they appear to have disordered attitudes towards eating. A gymnast, however, may be reluctant to provide further information thus leaving researchers debating the extent to which the athlete might be autonomously withdrawing from continued discussion of the topic, or whether withdrawal is indicative of concealment of an eating disorder. The perceived disordered attitude may be employed by the athletes as an autonomously chosen strategy, e.g. to maintain weight at what they perceive as their desired competitive level. On the other hand the same disposition might be better understood as an attitude indicative of a mental disorder, leaving researchers duty bound to involve others as they seek to protect the research participant.

Debates surrounding autonomy are not confined to these non-clinical cases. Even for those classified as having an eating disorder, there still remains debate over the extent to which the attitudes and practices associated with food are autonomously formed or otherwise. The existence of compulsory treatment for severe, life-threatening eating disorders in order to save life (Tan *et al.* 2006; Tan *et al.* 2010; Watson *et al.* 2000) demonstrates that in terms of UK law (at least), autonomy is held to be compromised in some way. There is also increasing utilization of motivational interviewing techniques to promote acceptance of the need for behavioural change and recovery (Treasure and Ward 1997; Vitousek *et al.* 1998). Such practices might suggest an implicit notion of a loss in autonomy

involved in eating disorders, such that sufferers may be unable to exercise autonomy without varying degrees of guidance, support or even compulsion.

The contention that an eating disorder sufferer is essentially non-autonomous with regard to their attitude towards diet and exercise has been challenged in bioethics. It has been questioned whether, in the absence of a genetic or biological explanation for eating disorders, we are justified in claiming that they constitute a mental illness that necessarily compromises autonomy (Giordano 2010a). For Giordano, the claim of non-autonomy is essentially circular, relying on a notion of mental illness that is not supported by biological evidence or explanation. The label 'anorexia nervosa' is said merely to describe a pattern of behaviour. This is contrasted with Alzheimer's disease, where there are clear underlying degenerative processes.[2]

This understanding is particularly germane for research ethics. Giordano argues that an eating disorder (or its related behaviours) itself may arise from a need to express control and self-determination. On this understanding, informing others of (perceived) problems, against an athlete's wishes may be counter-productive in terms of long-term recovery. Giordano's contention is that in the absence of the scientific evidence to the contrary, we ought to allow for the possibility that attitudes and behaviours, often labelled as 'eating disordered', may be autonomously formed. Then researchers would have to critically consider any justification for ignoring normal confidentiality duties when informing others of a suspected eating disorder.

This approach is at odds with the concern to protect those, especially young individuals, who are at risk of harm. Is Giordano's reliance upon biological explanations necessary or sufficient? Her contention that scientific evidence will dissolve debates over the autonomy of those with mental illnesses is not without problems. The distinction between a legitimate eating disorder sufferer, and an individual autonomously choosing severe calorific intake, cannot be grasped by a scientific or neuroscientific vocabulary.[3] The matter is a conceptual one, for the concepts frame the data themselves. Rather, the domain of the mental, concerned as it is with the focus of our thoughts, their rationality, and indeed social standards thereof, is a methodological precursor to scientific studies.

Research is ongoing into the relationship between mental illness and decision-making processes. The debate reflects the difficulty in establishing the nature of mind–body relations more generally (McGinn 1982). Thus, researchers may have a firm theoretical justification for either breaching confidentiality or preserving anonymity. In certain instances one may consider breaching anonymity, convinced that this will better serve the health and wellbeing of an apparently vulnerable young person. This, however, must not be done lightly having considered the range of arguments against the presumption of non-autonomy, the atypical norms of elite sport, and mindful of the significant implications of being labelled as having a 'problem' in an elite sport context.

Ethical issues and methodological issues: investigating eating disorders in elite gymnasts

We have noted the range of research methods that might be employed while conducting research of this kind. Coupling this methodological complexity with the sensitive area of study requires extensive preparation to ensure the range of potential ethical issues are considered at the outset, and properly addressed as they arise. The primary concern at all stages is to ensure that participants are fully informed of the purpose and nature of the study, and that no harm is incurred as a result of their participation.

Given the nature of the problem, ethnographic observational research methods may be considered, including the use of covert observation methods (Mays and Pope 1995). It is possible, perhaps likely, that behaviours and practices such as critical comments about weight and shape, weighing methods, and poor nutritional choices, may be fleeting, relatively hidden and easily missed amidst the general activity of sports training. Although covert social scientific methods have been previously used to study contentious subjects such as illegal activity, the ethics of imposing such research methods on any individual is suspect (Mulhall 2003), and certainly not morally justifiable for the elite athletic context as there is no prior certainty of harmful or abusive practices that might justify such research methods. Therefore, although there are limits to what an individual may choose to disclose in direct interviews and limits to the accuracy of narrative in reflecting reality of practices, interviews are preferred for the ability to enquire into practices and ethos without being overly intrusive.

Information sheets detailing the project and letters introducing both the research and research team are obligatory in such studies. Approved by the appropriate research ethics board/committee, these should be specifically designed for their intended audience. The informedness condition of consent requires researchers to specify in appropriate language the relevant details of the research (McNamee *et al.* 2006). Clearly the adolescent profile of many elite gymnasts must be appropriately considered. Given the sensitivity of the topic early distribution is critical in allowing time and space for dialogue with young participants and their carers prior to gaining consent proper.

Information sheets should make it clear that individuals will not be named in general reports, and that staff of a governing body, or those responsible for selection, will not be able to attribute any quoted material to individual athletes. Interviewers may even wish to make it clear how transcripts and reports will be suitably anonymized. Nevertheless, in research of these micro-worlds such as elite sports, there must be limits to guarantees of anonymity. Researchers must be careful not to offer absolute guarantees that they cannot uphold. There may well be instances in which it is appropriate to breach the confidentiality of an interview, or even raise concerns to parents or staff of a governing body if a serious risk to an athlete or another party is perceived. At the outset, prior to any data collection, the research team must envisage a range of potential scenarios in which the anonymity of the interview or participant's responses more generally could be

justifiably compromised. If procedures can be agreed within the research team, and with individuals (for example those working at a governing body) who may be involved if a problem escalates this will serve a dual purpose. Firstly, it will ensure that researchers are alert to the range of important ethical issues that may arise, and confident in their protocol in such instances. Secondly, with respect to establishing trusting relations with gatekeepers, such procedures assure those involved in the research (gatekeepers or others facilitating access to participants) of the credibility of the research team. Such procedures will also assure gatekeepers of the research team's ability to protect the athletes who participate.

Defining the extent of risk required to justify breaching confidentiality is a key task, along with deciding which parties will be involved if confidentiality is to be breached. Firstly, in reference to the judgement as to what constitutes a serious risk, the benefit of having healthcare professionals and indeed mental health professionals on the research team is self-evident. A healthcare professional should be involved at every data collection point, whether by interview or by questionnaire. This will allow for decisions regarding the risks posed to athlete participants to be considered within the context of an informed judgement.

The evaluation of 'serious risk' may well be a clinical decision, made on a case-by-case basis resisting generalizations, and drawing on the conceptual matters referred to above. Nevertheless, prior to undertaking fieldwork, researchers should consider the range of ethical issues that may arise and plan for contingencies that will be dependent upon the nature and severity of the perceived risk. In the discovery of a mental health problem of some kind, not thought to relate directly to the gymnast's athletic career (i.e. excluding eating disorders), the following provides examples, mutatis mutandis, of a possible protocol. In the case of an adult gymnast, a member of the research team with clinical expertise would discuss the problem with the gymnast, including potential options in terms of the medical help they might or should seek. Ultimately whether that individual chooses to seek help will be their decision. For gymnasts who are legal minors, an additional duty to prioritize their welfare arises. This means that even where a minor is 'Gillick competent'[4] and possesses the maturity to make his or her own treatment decisions, there remains a duty on researchers, health professionals as well as those holding parental responsibility, to protect them, which may lead to the need to disclose information and act in their interests even without consent. Therefore, in cases where serious risk is perceived in a legal minor, a member of the research team with medical expertise must discuss with the athlete the potential need to inform their parents/guardians and offer assistance to that end.

Other mental health risks may have more relevance to the individual's gymnastics career. A perceived eating disorder, for example, might impact upon training and competition performance. Those charged with athlete welfare within the organization might be thought to have a right to such information. It might be critical in decision making to adapt planning and care for the gymnast. Indeed, those coaches who see the gymnasts for training and competition six times a week might well be considered to be acting in loco parentis. Perceived risks that relate directly to the gymnast's training and competing routine, such as a potential eating

disorder, may require the notification of a specified person within a governing body with responsibility and the sensitivity to be able to assist the gymnast in seeking treatment in dealing with the impact this problem will have on their athletic career. Again, the need to involve staff within the governing body as well as parents/guardians for younger gymnasts should be first discussed with the athlete by a member of the research team with medical expertise. It is important that direct pathways to notifying those within a governing body do not include coaching staff or those involved in the selection of gymnasts for squads/teams, knowing that this may discourage the gymnast from admitting a problem owing to concerns over their ongoing gymnastic career.

The assessment of risk might also consider culture-specific norms fostered in elite sport environments (Brackenridge 2001). These norms may be more accepting of low bodyweight, or a preoccupation with weight and shape. In assessing when gymnasts are significantly 'at risk', especially if researchers perceive that the interviewee has potentially disordered attitudes toward eating, the broader environment in which the gymnasts train and compete might be relevant. The use of several methods of data collection, quantitative methods assessing attitudes toward eating, and physical measurements such as weight and height, along with qualitative data from interviews, may help researchers generate a fuller picture of the potential risk. Preoccupation with shape and weight may be common in this population, and functional in terms of sporting success. Physical norms are also different for elite gymnasts. Nevertheless, the extent to which researchers should attend to such norms in assessing risk will be a challenging point for researchers. It may be that the norms or ethos of the sports themselves are a risk that athletes should not have to incur.

A further difficulty when conducting research of this kind, varying according to the medical expertise of the research team, is defining more precisely the boundaries of responsibilities in terms of their 'duty of care'. While there are a number of parties closer to the gymnasts (parents, coaches, and fellow gymnasts) a team conducting this type of research must be sensitive to the possibility that the research may itself uncover problems. The research team must be clear as to the extent to which they are willing/obliged to assist with such problems. While the aim of research is not to provide a therapeutic benefit to those who participate, where expertise on eating disorders exists, medically qualified researchers may be willing to offer assistance appropriately tailored to their role as researchers. This, however, generates the potential for role conflict. Nevertheless, it is a realistic possibility and it would be negligent of the research team not to have considered it prior to conducting the research and having a contingency plan in place. For example, members of the research team may offer assistance in discussing the perceived eating disorder problem with the gymnasts' parents, subsequent to team discussions. Relevantly qualified members of the research team may also offer assistance to strategize with parents or governing body representatives regarding the best route forward in terms of securing treatment. These offers of assistance seek to preserve and promote the best interests of the gymnast perceived to be at risk, while

maintaining the boundaries between research and care. Problems can arise, however, if a mild or moderate eating disorder (or other mental disorder) is uncovered, or where a disorder is suspected but not confirmed, and where there are insufficient grounds in terms of risk to breach confidentiality. Under these circumstances one must expect that the participant will decline such intervention.

There are also, of course, practical impossibilities in offering any further care on the part of a research team already committed time-wise and situated at a distance geographically. This can raise some tensions about the limits of the researchers' role and duty of care, particularly if local mental health resources for the diagnosis and treatment of eating disorders are scarce (surveys have found that resources are both inadequate and patchy across the UK: Royal College of Psychiatrists 2012). There are few resources within all but the most lucrative commodified sports to pay privately for prompt, specialist eating disorder treatment. Equally there is little in the way of formal provision in specialist postgraduate sports medicine. The researchers, therefore, have to be willing to cope with the uncertainties of diagnosis and risk (particularly as they are not in a position to investigate, clarify or formally assess these) and to manage their own feelings as health professionals who would normally be able to act to provide more help to the athletes in a different context.

Cases are reported in Europe of coaches who physically chastise their gymnasts (Koukouris 2000). Therefore, researchers will also need to be sensitive to any issues of bullying, harassment or abuse, be aware of their responsibilities in terms of the law, and also appraise themselves of relevant sport governing body governance procedures in relation to these behaviours. Here, the infractions are not simply those of culture-specific norms, but reflect abuses of human rights. An awareness of existing governance frameworks has the advantage of involving staff well placed to oversee any ongoing intervention (in the case of bullying for example) without involving staff directly responsible for the selection of gymnasts.

One further consideration concerns the range of potential scenarios to be reported on an information sheet, designed so gymnasts and parents can make an informed decision as to whether they want to participate or not. Clearly the full range of scenarios cannot be addressed but a more general line can be taken stating that limited information may need to be shared with others, in instances of clear risk to the gymnast or someone else. Importantly, it should be stated that if information is to be shared with others, that this must be discussed with the participant beforehand, and such discussions would address what will be said, to whom and how.

The above provides an outline of some of the challenges that may be encountered in conducting such research and also offers some ways in which these may be overcome. This is not intended to be an exhaustive account. Research fieldwork may certainly raise unexpected and important challenges that require careful discussion and action from the research team. Nevertheless, being aware of those possible scenarios detailed above, the general principles that underpin them, along with concerns more specific to the sporting environment, would no doubt be of assistance to those looking to undertake research of this kind.

Generally speaking, the need for participants to be fully informed and free to choose to participate and withdraw of their own accord, remains a key tenet of research generally, as does the need to protect participants from harm. Anonymity of research participants remains central to eliciting genuinely rich data, while protecting participants. More specifically, researchers must be sensitive to the fact that for these young people, training six days a week, gymnastics is probably the most important aspect of their evolving identity. Research that might be perceived as challenging the ethos of the sport must be conducted sensitively. While in instances of clear risk to the gymnast the research team may ultimately take action which may impact upon the progress of a gymnastic career, researchers should remain sensitive to the centrality of the sport to the research participant in both making decisions about who to disclose information to in breaching confidentiality and in any discussions with the gymnast her/himself.

There is a very close relationship between ethical and methodological considerations when undergoing research of this kind. The following will allude to some specific methodological recommendations that might help address some ethical concerns:

1 *Engage sport governing body and agree protocols*. In any project that deals with sensitive topics such as eating disorders, and which also seeks to examine a broader sporting ethos or subculture, it is important to gain both the trust and respect of those within clubs or governing bodies who may assist with the logistics of the study and facilitate access to gymnasts. It may also be important to liaise with medical representatives at clubs or governing bodies, particularly if they may become involved in instances where confidentiality is breached on the grounds of a perceived serious risk that relates to the individual's gymnastics career. The aims of the project should be made clear, as well as the limitations of the focus of a project of this kind. The anonymity afforded to athletes in standard circumstances should be explained. It should also be stated that in order to preserve such anonymity the public reporting of the results of the study will not detail the geographical location of gymnasts or clubs. Thus it should become clear that the purpose of the study is not directly an evaluation or test of a given club or organization that is assisting with the research. Developing such relationships and outlining early on the parameters of the research should help allay fears that researchers may take a journalistic approach to their task and look to expose, rather than conduct a study that is ultimately intended to be helpful to all those involved.
2 *Follow research with education*. Research engagement, whether by questionnaire or interview, may feasibly raise concerns about athletes' attitudes towards themselves or the attitudes of others. The distribution of educational material and the delivery of a short educational session on eating disorders may help to assuage such concerns, and point gymnasts or carers in the direction of relevant materials or sources of help. Following the completion of the research fieldwork with general psychoeducational workshops on the subject of eating disorders for coaches and other staff would also help to

address any gaps in knowledge or unhealthy attitudes detected in the course of research, without any breach of confidentiality.

3 *Maintain confidentiality as a priority*. It will also be central to research projects of this kind that researchers develop a strong rapport with gymnasts and remain approachable throughout. At the same time, in small closed communities such as elite gymnastics, individuals taking part in research would all know each other, athletes and coaches would know who else in their clubs participated, and there can be anxieties concerning both what might be said by others, and whether confidentiality might be breached. Researchers will also need to make it clear (apart from in circumstances of perceived clear risk) that the gymnasts' responses will remain anonymous. A further way in which gymnasts may be encouraged to feel as comfortable as possible, and thus most likely to 'open up' in relation to the many complex and sensitive issues that orbit eating disorders, might be to gender match interviews – to ensure that young female gymnasts find that the majority of their contact for the duration of the research is with female researchers. This is an important strategy, particularly for female athletes talking about self-conception and body image, to minimize the perceived power differential and increase identification and engagement with the researcher (Pedersen 1998).

4 *Enable detection and handling of issues of risk.* The presence of healthcare professionals on the team is, of course, vital to the judgement of risk discussed above, and the appropriate counselling of a gymnast if they do seek help in an interview situation. Health professionals must also be sensitive to the potentially intimidating nature of their role. Those experienced in a therapeutic setting however, will be versed in helping participants feel comfortable and at ease. Nevertheless, even with such attempts to ensure that gymnasts feel at ease in the research setting, and comfortable in talking to the researchers, some individuals may not feel comfortable raising concerns face to face. While the contact details of the research team will be available on all information sheets and consent forms, a separate email account set up specifically so gymnasts can email any questions may prove less intimidating rather than needing to email a named researcher at an institution using a university email address. This should help to facilitate any communication between research participants and the research team after fieldwork has taken place. Questions sent to this account should be treated as confidential data, although the normal restrictions as to when confidentiality may be breached should apply.

5 *Involve the governing body in reporting and agree plans for publicity.* The governing body may be justifiably nervous about adverse publicity from the research, or from a critical report. Researchers have to be firm about maintaining independence and reporting results faithfully. At the same time, they need to acknowledge the governing body's priorities and produce constructive reports, as well as giving notice of the report's publicity. In some cases it would be appropriate and beneficial for both sides to jointly manage press releases and publicity.

Conclusion

The study of eating disorders in young male and female athletes is fraught with ethical difficulties and dangers. Eating disorders are serious mental illnesses that jeopardize the welfare of those who suffer from them, yet the sufferer is often ambivalent about accepting a diagnosis and seeking help. This is particularly so in elite sports contexts where a mild or subclinical eating disorder may even be functional in nature and congruent with a prevailing sporting subcultural ethos of perfectionism and low body fat and/or mass. At the same time, having an eating disorder can affect the autonomy and identity of the individual, or derail their normal development. This is of particular concern in sports such as gymnastics where elite athletes may be very young adolescents.

The above is by no means an exhaustive account of the ethical and methodological issues raised when conducting research of this kind. In such research, however, informed consent, not harming participants, anonymity, and confidentiality must be central concerns. Simultaneously, the exact stance of researchers on when to breach confidentiality is likely to take place on a case-by-case basis, decided upon as the project progresses. It is well said that 'fools rush in where angels dare to tread'. This research is not for the faint-hearted. One may query, as Brackenridge (2001) does in relation to paedophilia research, whether it should be undertaken by anyone other than experienced scholars. The strategy presented here has therefore attempted to demystify the research process in relation to ethical aspects of eating disorders and to serve notice of the ethical pitfalls likely to be encountered.

Notes

1 First appeared in *European Journal of Sport Science* (2012), 1–9, with the title 'Investigating eating disorders in elite gymnasts: Conceptual, ethical and methodological issues', co-authored with Jacinta Tan, Andrew Bloodworth and Jeanette Hewitt.
2 Giordano (2010b) argues that an anorexic might competently refuse life-saving treatment. She states, however, that there may be other considerations, for example the prospects of longer-term recovery, and the involvement of the family, that provide moral justification for overriding such refusals.
3 See Matthews (2007) for a more detailed look at this argument.
4 The Gillick competence test is well known in medical ethics. It arises from a case involving a minor who was held to have legal competence ('capacity') to decide without parental authorization to seek and employ a contraceptive pharmaceutical. The practice of recognizing competence of minors in relation to specific decisions is well recognized in UK law. Though widely referred to it has now been replaced by the 'Fraser Guidelines'.

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Part IV

Doping and the ethics of performance enhancement

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11 Ethical and juridical peculiarities in doping policy[1]

Sports physicians (Kayser and Smith 2008b), medical ethicists (Foddy and Savulescu 2007) and technologists (Miah 2005a; Magdalinski 2009) generally have recently argued for the liberalizing of regulations concerning human enhancement in sports. Critical discussion has focused on the legitimacy of the use of steroids, genetic manipulation and other forms of illicit performance enhancement. Surprisingly little discussion has been had on the interface between law, medicine and ethics as they converge in sports medicine and elite sports. The use of a wide variety of banned and non-banned supplements is prevalent among casual gym users, those active in sports, and is by no means restricted to elite sportspersons (hereafter 'athletes') (Monaghan 2001). This development is to be seen in the context of changes in social attitudes to medical and pharmaceutical products and services that have developed in relation to the supratherapeutic goals of medicine. As Parens (1998) has argued, better is not always good. Athletes, whether they choose to or not, provide role models for society, and their better performances are not morally admirable when their record-breaking feats are not the product of what Murray calls the 'virtuous perfection of our natural talents' (Murray 2008). Developing coherent ethical and legal responses to the use of doping is difficult partly because of the challenges ethical postures have traditionally created for the law. The policy context for this chapter is the newly revised World Anti- Doping Code (WADC), which became effective in January 2009. In this chapter, we seek to highlight the tension between legal and ethical postures arising from the WADC, and offer some, albeit critical, justification for their application in the broader contexts of sports' doping legislation, which may affect athletes and physicians alike.

The ethics of doping

On an almost weekly basis, we hear or read of the latest 'doping' exposé. 'Doping' is a pejorative term that emerged from descriptions of those who were addicted to opium 8, which is considered illegitimate in the vast majority of elite sports.[2] There have been several sceptical challenges (Tamburrini 2000) to the legitimacy of the anti-doping position arising from both philosophers working in the field of medical ethics and sports ethics. They argue, typically, that the bans on certain

performance-enhancing processes and substances rest on principles that are inconsistently applied (Brown 1984; McNamee 2008).

Sport, it is widely canvassed, is about healthy, natural and ethically regulated activity. The WADA itself employs three criteria, of which at least two must apply in order for a product or process to be proscribed: it should be performance enhancing; it should present an actual or potential health risk; and it should violate the spirit of sport (WADA Code 2009, Article 4.3). Performance enhancement per se is, of course, the heart of elite sport. The other criteria establish means by which it is unacceptable. In response, sceptics typically argue that: (1) doping is no more unnatural than the muscle-bound and technologically saturated athletes and sports equipment, prostheses, and so on; (2) athletes who train harder do not coerce their opponents to follow likewise and doping should be thought no different; (3) doping is no more harmful than other legitimated behaviours such as punching in boxing, or brutal tackling in rugby or American football; and (4) doping confers no more of an unfair advantage than is enjoyed by athletes or teams from economically or technologically superior countries/clubs/systems. A more passive case made by the anti-doping lobby is that by failing to proscribe socially undesirable behaviours, it would celebrate bad role models and promote undesirable lifestyles. Such a stance is consistent with public health policies against smoking or the use of marijuana (even when the harmed are solely the users themselves). To this, the sceptics may argue that the undesirability of doping would be chimerical if anti-doping rules were repealed and not forced upon athletes seeking only to optimize their own athletic potential while only (potentially) harming themselves.[3]

Each of these sceptical challenges has some merit. In addition, the ethical and legal legitimacy of doping control may diminish if undetectable gene technology comes into widespread use. Nevertheless, what deflects sceptical challenges is the fact that the sporting practice communities[4] (MacIntyre 1984) themselves have rejected doping through their engagement in the processes of the formulation of anti-doping policies and practices.[5]

International doping policy: the WADA and the WADC

The World Anti-Doping Agency (WADA), established in 1999, is based on the cooperation between sports organizations and governments, and is financed by sports organizations and governments on an equal basis. Its most notable achievement has been the worldwide WADC in 2003 and its revision implemented in 2009. The rationale behind the WADC is the harmonization of anti-doping rules and measures. Nearly all international sports federations have accepted the WADC.

Concerning doping, therefore, the WADA and the WADC enjoy a hegemonic position with respect to medical, policy, scientific, as well as juridical matters. The WADC is predicated upon the evidence of sports medicine and sports science experts who determine which substances or processes are to be prohibited. The determination of the resultant list of prohibited substances and methods is

juridically final. This position has, however, never been challenged in any court. Anti-doping rules are juridical norms and belong to the area of sports law (Houlihan 2002; Blackshaw *et al.* 2006; Siekmann and Soek 2007) whose relationship with public legislation is not always clear. This means not only that athletes are uncertain of the legitimacy of the legislation, but neither too are physicians and healthcare professionals who are part of the sports medical entourage. We probe this relationship in the section that follows.

Between the WADC and the state legislation

Despite co-funding and legitimation by national sports federations and governments on an equal basis, the juridical norms of the WADC are not generally binding and apply only to the international sports federations who are signatories to the WADC. They do not apply directly to athletes themselves. Instead, athletes fall under the jurisdiction of their own national sports federation's anti-doping rules, which themselves are governed by the WADC. Typically, sports are organized nationally, but fall under the jurisdiction of international sports federations and, when relevant, the International Olympic Committee. Nearly all major sports federations now have their own anti-doping rules; nevertheless, the WADC obliges them to apply the obligatory articles of the WADC and thus to follow the principles of the WADC. In this way the juridical norms of the WADC now concern not only the athletes but also other people taking part in one or other way in the sport concerned under the jurisdiction of a signatory of the WADC. This development is an important one because it is now well known that the athlete engages in doping as part of a systemic effort between coaches, masseuses, physicians, physiotherapists, team management and so on. The clearest examples of this systemic sports medicine and sports science development in former times was the East German state's sports science apparatus, and more recently the Tour de France 2007, in which it is widely thought that the majority of professional teams were engaged in doping practices to some degree.

Article 2.8 may now be employed to hold sports physicians to account for their complicity with doping violations.[6] A sports organization may impose a sanction for this violation in accordance with its rules. This is not a punishment in the same sense as in the criminal code, but is better thought of as a disciplinary consequence or sanction. These sanctions are limited to the powers of a private organization.[7] So, if these doping rules are broken, the question is not typically one of a crime being committed but rather the lesser one of a violation of the rules of a private organization. Doping has been criminalized in some European countries (e.g. France, Italy, Slovenia), but seldom beyond there. In some member states of the European Union related acts such as drug abuse or the smuggling of medicines are criminal acts. In other cases, tax law, for example, has been used by state authorities to use coercive powers such as search and seizure for the detection of crimes to prosecute the case. It is important to note that doping has not, however, usually been defined in criminal codes exactly in the same way as in sport. Doping in criminal law is often more limited in scope than in sports legislation. The

validity of a doping violation is established by a sports tribunal, which is convened by national sports federations or international sports federations. Sanctions normally take the form of ineligibility and the loss of medals, prize money and so forth. These override rights to compete and reward, which are internal to the sport and its governance. In cases of dispute, and in accordance with the WADC, the Court of Arbitration for Sport (CAS) arbitrates between parties. It is noteworthy that this is obligatory in cases of anti-doping under the auspices of the WADC, whereas in other disputes both parties must normally consent for the case to be heard there and to abide by its rulings. By contrast, anti-doping rules of sports organizations have emerged within the sphere of private law and, in most cases, remain there.

The differences between public law and private law have kept these two sets of procedures juridically distinct. On one hand, sports organizations or their tribunals apply their anti-doping rules with disciplinary sanctions, whereas on the other hand criminal courts apply the state law concerning doping punishments. One significant consequence of this dual legal economy has been that the same anti-doping violation can now be, and often is, punishable both as a crime in a criminal court and as a disciplinary offence in a sports organization or its tribunal (or a surrogate such as the CAS) (Tarasti 2007). The incidence of these cases has greatly increased in recent years. More countries have included doping offences in their criminal legislation, the supervision of doping offences has expanded and, when previously only athletes were punished, now the focus is also on the elite sports support system including sports physicians.

This dual legal economy – the processes in accordance with state legislation and in accordance with the sports organization's anti-doping rules – have sometimes converged. A cursory examination of this convergence is found in the following recent and high profile examples. The Tour de France doping scandal in cycling in 1998 started from police investigations (CNN Sports Illustrated 1998) and the Chinese doping scandal in swimming in 1998 (BBC News Sport 1998) started from Australian customs officers' seizure of human growth hormones entering Australia for the world championships of that year. Similarly, in Spain Operation Puerto, an investigation conducted by the Spanish authorities into doping practices, followed the seizure of prohibited substances and other material by the Spanish police in 2006 (Waddington and Smith 2009). It should be noted, here, however, that tax evasion legislation initially uncovered an illegal pharmacology trade, and the fallout brought the revelations that led to UK sprinter Dwain Chambers' ban from international athletic competition for two years and (controversially for some) his lifetime ban from representing Britain at the Olympic Games (BBC News Sport 2008). In the Athens Olympic Games in 2004 two Greek sprinters, Kenteris and Thánou, evaded doping control officers (BBC News Sport 2004). Perhaps the most recent high-profile case is the investigations in the USA into Balco Laboratories, where tax investigations uncovered widespread illicit doping, which saw the greatest ever American female athlete being imprisoned. We will comment on this below. These high-profile cases seem to reinforce the idea that there is a certain dependency on the powers of state

authorities if anti-doping rules are to be effective. In the following section we probe this dual legal economy between sports anti-doping rules and criminal law.

Ethics, anti-doping rules and criminal law

When cases of the dual prosecution of athletes and their medico-scientific support systems become more common, the question of whether the principles of criminal law should be applied to doping disciplinary processes will be accentuated. At least three ethico-legal dimensions of doping prosecution deserve critical scrutiny: (1) notions of guilt, negligence and liability; (2) aspects of punishment; and (3) privacy.

Guilt, negligence and liability

Rule breaking exhibits degrees of intentionality. It also typically elicits guilt. Culpability is not limited to premeditated acts. The rugby player who stretches his foot out to trip his opponent, or the football player who swears at the referee in response to a perceived poor judgement, intend their acts and may or may not feel guilty (McNamee 2002b). Equally, players may feel guilty for accidental career-ending injuries they inflict unintentionally on another professional. Moreover, there are many instances during games when the official decides that a pattern of rule-breaking behaviour, although it does not appear premeditated, exhibits intentionality in the habitual nature of the act (Anscombe 1957).

Aside from these cases, there are others in which a rule is determined to have been broken when the athlete fails in some other duty. So, the relay runner who steps on or over the inside lane marking is deemed not to have completed a minimum of 400 metres thereby and is disqualified irrespective of the absence of mens rea (guilty mind). The establishment of an offence without mens rea is not without precedent in sports rules, but a particularly strong variant arises in anti-doping policy when a prohibited substance is found to be present within an athlete's body tissue or fluids. Article 2.1 in the WADC wording states that an offence is merely for 'the presence of a prohibited substance or its metabolites or markers in an athlete's sample'. The wording of this violation indicates that this type of doping offence can include wider liability than other types of doping offences in which liability is estimated in accordance with normal juridical principles (Soek 2006). Strict (or 'wide' as it is sometimes referred to) liability is justified in doping cases because the standards of criminal proof would be unreasonably high to establish against athletes who conceal their actions. Therefore, in its judgement of 15 March 1993, concerning the juridical nature of the awards pronounced by CAS, the Swiss Federal Tribunal pointed out that:

> as for the opinion of the CAS, whereby it is sufficient that the scientific analyses performed reveal the presence of a banned product for there to be presumption of doping and, consequently, a reversal of the burden of proof, this relates not to public policy but to the burden of proof and the assessment

> of evidence, problems which cannot be resolved, in private law matters, in the light of notions proper to criminal law, such as the presumption of innocence and the principle in dubio pro reo, and corresponding guarantees which feature in the European Convention on Human Rights.[8]

When, therefore, prohibited substances have been detected, the athlete has demonstrated their negligence with respect to their active duty to avoid doping. This interpretation arises from and focuses upon the assiduousness and prudence of the athlete. Athletes are advised by relevant sporting bodies as to which substances may or may not be ingested. They, and the medical team that supports them,[9] are expected to be educated as to the products that may contain illicit substances and to use only approved supplies. The application of these powers of self-surveillance is experienced by most athletes as burdensome or anxiety provoking. Yet elite athletes are necessarily creatures of habit by virtue of the need to adhere to strict training regimes. Some Norwegian research suggests athletes perceive it as a necessary evil (Hanstad and Loland 2009), while there has been much discussion in journalistic media as to its burdensome nature. We discuss the matter further below.

Nevertheless, the requirements in this respect are indeed strict, because liability is not limited to the intention of the athlete to use doping products or processes. Ought then the principle of nulla poena sine culpa (no punishment without guilt) be applied in doping offences without intention? It is important to note that culpa, guilt, may be constituted by an act or omission. The common omission is that of negligence. Guilt may indeed be relatively blameless in the case of the accidental or unwitting ingestion of banned substances provided by other parties.[10] Yet beyond the legal sphere, it could be argued that this strict liability is in conflict with the more general presumption of innocence. It might be argued that doping offences ought not to be considered an exception to the general ethical norm of demonstrating culpability. The application of strict liability is not unique. There exist numerous other examples in which the level of care demanded is as high when imposing sanctions; such as in the transport of radioactive substances and wastes, or in dealing with hazardous chemicals or medicines, in dangerous building works and so on. Here the sanction operates to prevent harm to others and the self engaged in dangerous practices. Moreover, the CAS (95/142) has held that:

> The use of the term "strict liability" in the context of doping could be misleading: under the term "strict liability", one should understand a concept of liability similar to that of civil liability, without fault in tort, or comparable to product liability cases.
>
> (Honsell 2005)

It does not raise the issue of guilt, or the 'presumption of guilt', with respect to the applicability of disciplinary sanctions. The concept of 'strict liability', as it has been used in doping cases, as we have argued, does not entail intentionality. The sanction is an inevitable consequence, if a doping offence has been established.

Whether a severe sanction such as a two-year ban may be imposed on an athlete without examining the issue of guilt is a point worthy of further consideration. Finally, the CAS (95/141) holds, in generally stark terms, that:

> too literal an application of the principle nulla poena sine culpa could have damaging consequences on the effectiveness of antidoping measures. Indeed, if for each case the sports federations had to prove the intentional nature of the act (desire to dope to improve one's performance) in order to be able to give it the force of an offence, the fight against doping would become practically impossible.

In summary, without strict liability anti-doping legislation would not so much be impotent as it would be inoperable.

One crime, one punishment?

One of the leading principles in criminal law and part of everyday morality is that for one and the same crime only one punishment can and ought to be imposed, ne bis in idem (not twice for the same). Can or ought it to be applied also in the context of doping sanctions? Theoretically speaking the answer is clear and generally accepted. Despite appearances to the contrary, however, punishment in a criminal court and a doping sanction in a sports organization or its tribunal do not offend the principle ne bis in idem because the punitive measures are qualitatively different.

Only the punishment by a criminal court is a punishment in the sense of criminal law, whereas the other is better conceived of as a sanction. The doping sanction by a sports organization or its tribunal is thus a disciplinary measure. The first one belongs to the area of public law, the latter to private law. Many examples of this distinctness both in nature, procedure and purpose exist with regard to sports. Monetary fines and imprisonment have thus been measures taken by legal courts while measures relating to ineligibility and loss of prize money have been levied by sports organizations or their tribunals. It might be thought that, for example, a loss of prize money or financial sanction might function to reduce an ineligibility ban. Such a view is explicitly rejected in Article 10.12, Imposition of Financial Sanctions, of the revised WADC, which came into force in 2009. In accordance with this article:

> Anti-Doping Organizations may, in their own rules, provide for financial sanctions on account of antidoping rule violations. However, no financial sanction may be considered a basis for reducing the period of Ineligibility or other sanction which would otherwise be applicable under the Code.
>
> (WADA Code 2009)

It is interesting to ask, though, what additional latitude is given by the phrase 'other sanction' and whether this latitude offends the principle of ne bis in idem?

One such other sanction, and a fairly obvious one at that, is a financial penalty. If this article is enacted, there can be in one and the same doping offence two fines, one imposed by a criminal court and another imposed by a sports organization or its tribunal. Can the separateness of these two sanctions still stay without offending the principle ne bis in idem? It seems not. Rather, the athlete merely has to pay twice for one act, only the recipient is separate.

From the athlete's point of view there is no difference in fines between public and private law because the consequence is the same. The ne bis in idem principle has, however, been valid as a part of human rights only in criminal processes, and has not hitherto been related to disciplinary sanctions. If this kind of situation were to arise, the civil court or the execution authority would be obliged to deal with, and to resolve, whether the ne bis in idem principle shall or shall not be applied. We hold that it would be both intrusive and wasteful of public resources if the province of public law were to start to determine ineligibility in sport given the quasi-autonomous nature of sport's own regulatory frameworks. Nevertheless, the WADA Code could easily be revised to eradicate the replication of the punishment that ceteris paribus seems unjust.

One potential exception arises in the case of the private sponsorship of sports teams and individual athletes therein. Athletes and members of the support team frequently make an agreement with third parties for different kinds of economic and other benefits and entitlements (such as state-funded healthcare). In these agreements it is possible that the athletes commit themselves to compensate to their federation for the loss to their image and/or economic losses in the case of a doping offence of which the athlete is found guilty. Contractual penalties are normal in business contracts and there is no reason to suppose that athletic contracts ought to be considered an exception.[11] There may be cases then when there can be in one and the same doping offence three different sanctions: punishment according to criminal law; disciplinary sanctions according to the national sports federation's anti-doping rules; and contractual penalties (financial compensation) according to private law and the agreement between the athlete and his/her sports federation.

Finally, it should be noted that sanctions may come in forms other than official. Consider the recent case of the British sprinter Dwain Chambers, who served a two-year ban for the illicit use of a growth hormone obtained from Balco Laboratories. Following his two-year ban, he won the right to represent the UK in the 2008 World Indoor Athletics Championships 60 metres sprint. The British Olympic Association is unusual, although not alone, in having a byelaw that precludes any British competitor convicted of a doping offence from representing them at an Olympic Games. The former Head of WADA (and barrister) Richard Pound has suggested it is unlikely to be upheld in a court of law (Slater 2008). To his cost, however, Chambers unsuccessfully challenged the ruling against him in the High Court in 2008.[12] Whether other courts would follow this precedent is not clear, nor is it clear that if challenged the ruling could not be repealed, but Chambers has decided (almost certainly on financial grounds) not to appeal. Legal and sports regulatory frameworks are not the only mechanisms of power in sports.

While commonly derided for their pathological intrusion into sports, there are times when commercial agencies can intervene. In the case of Chambers, the leading athletics events organizers, taken aback by some of Chambers' ill-advised comments during his two-year sojourn, have withheld invitations to him in their televised track and field meetings, thus lawfully depriving him of the ability to earn income.

Privacy

Undoubtedly, what has been the most contentious of the revised WADC has related to the privacy of the athlete. There are two cases that may be thought problematical: urine sample provision and the athlete's location and availability for testing.

1 The ability of police officers to undertake bodily searches is forbidden in law in all but highly serious criminal cases. By contrast, in doping control all athletes have an obligation to give a urine or blood sample in any place at any time upon request. These samples have to be given under the supervision of a doping control officer so that he/she can observe urination at all times. This ruling was established in order to prevent athletes using a catheter to provide 'clean' urine samples, which were stored at a time when they were not on a doping cycle. Clearly, there is no privacy in this operation, and this is confounded in the case of athletes who are legal minors, when a chaperone is required.
2 In democratic societies one may move freely without announcing to public authorities where one is going. Yet elite athletes belonging to a doping testing pool in each sport are, according to Article 14.3 of the WADC, required to give whereabouts information. Typically, this means nominating one hour per day – months in advance – when they must consider it their duty to be present. The information must thus be accurate and predictive. A tester may arrive, unannounced, at the stated location in order to take a sample. Three failures to comply within an 18-month period constitutes an anti-doping violation. The consequent sanction will be ineligibility from athletic competitions for between one and two years.

The surrender of certain freedoms of movement from surveillance is a highly controversial issue (Kreft 2009). Nagel puts the general problem as 'how to join together individuals with conflicting interests and a plurality of values under a common system of law that serves their collective interests equitably without destroying their autonomy' (Nagel 2002: 4). While there may be a justification for such expanded surveillance in the matter of, say, terrorists' threats to public safety, the case for its application in anti-doping seems less obvious. One justification for the privacy limitations is that the athletes have agreed to observe all the sports' rules when they compete. They cannot select which to observe and which not.

A rejoinder might be that they have no choice other than compliance but that they do not assent to its legitimacy. It may well be thought that the request for whereabouts information is a coercive offer; that elite sportsmen and women can only ply their trade effectively in one arena, and thus that the controls undermine autonomous assent. The imposition on the athlete to surrender an aspect of their privacy non-elite athletes enjoy may also comprise a coercive offer. This contextual element increases the burden upon the WADA to justify its application. A defence, similar to that offered by CAS above, is that the entire system cannot operate without a procedure that allows random out-of-competition testing, which demands whereabouts information. A key concern here will be one of proportionality. Does the surrender of one's privacy need to be so severe? Might the burden be less than three months? There will also be inevitable cases of unfairness in the application of the rule. While tester A may leave the designated site at exactly T+1 h (as stated) another may wait T+70 and find the athlete arrives merely late because of heavy traffic en route. Clearly the issue of weighing the demand to surrender privacy and to examine the latitude of testers merits further discussion.

Conclusions

The idea that sport is somehow beyond the ethics of everyday living and law has long been jettisoned. The legal peculiarities highlighted here and their ethical implications reveal how anti-doping legislation and rules appear to differ from other areas of law and commonsense morality. Although it has sometimes been argued that doping legislation is unacceptably burdensome, we have attempted to disambiguate certain apparent tensions between criminal law, private law and everyday ethics. We do not suggest that the relations between these spheres are not without problems. Nevertheless, the nearly unanimous decision of national sports federations to regulate against doping has been a response to a genuine crisis in the representation of the values of sport themselves and serves to protect the interests of all engaged therein.

Notes

1 First appeared in *Journal of Medical Ethics* (2010), 36(3): 165–9, with the title 'Juridical and ethical peculiarities in doping policy', co-authored with Lauri Tarasti.
2 There are exceptions. Much ink has been spilt over the status of Barry Bonds, the American baseball player who broke the all-time record for home runs while openly using steroids.
3 An argument similar to this is put forward by Miah, among others. Nevertheless, two counter-arguments might be made: (i) that doping-induced hyper-aggression would harm opponents in certain sports; and (ii) that denying no-doping athletes their just rewards in itself represented a harm to others.
4 We follow MacIntyre's practice/institution distinction in which the former refers to various complex social activities (e.g. agriculture, chess, football), whereas the latter refers to its mediating bureaucracies (e.g. the International Olympic Committee, Federation of International Football Associations, and so on).

5 Responses to doping do not stop at sports bodies. In 2004 the first WADC was signed by 186 states.
6 The latitude opened up by the precise wording warrants further consideration: 'any […] type of complicity involving an anti doping violation' will render sports physicians culpable. This seems indiscriminately broad.
7 Sports organizations do not have such coercive powers as authorities. Their powers are limited within their sport. Therefore, for example, they can prevent the athlete from competing in official competitions or tournaments. Similarly, the execution of the sanctions is limited.
8 Strictly speaking, there is no presumption of guilt: the mere presence of the doping product renders the athlete guilty of a violation.
9 On advice from the team doctor the 17-year-old Romanian gymnast, Andrea Raducan, took an analgesic that contained 'pseudoephedrine', a banned substance. She was thus subsequently stripped of her individual gold gymnastics medal at the Sydney 2000 Olympics.
10 The newly revised WADC includes a more flexible sanction system than the previous system to allow for this fact.
11 On an analogous point, sports physicians have been known to offer their services on a voluntary basis, even in highly lucrative sports, in order to avoid what they perceive as problematical contractual terms and conditions.
12 One commonly cited reason for the failure is that the athlete sought an injunction immediately before the Beijing Olympics thus attempting to 'spring' the judge into a decision in his favour. It appears that Chambers and his team underestimated the judge's respect for due process.

12 Beyond consent

The ethics of paediatric doping[1]

In this chapter,[2] I argue that the issue of paediatric/adolescent doping is one that merits serious philosophical attention. I consider whether an adolescent who is legally competent to consent to medical pharmacologies such as contraceptive pills ought to be allowed to consent to doping products. The former case, well known in medical ethics, is often referred to as 'Gillick competence' following the court case brought by the mother of an adolescent (Mrs Gillick) whose consent was first considered satisfactory by her medical doctor and then the Law Lords of Great Britain. I first discuss issues of vulnerability and exploitation of adolescent athletes that might underwrite a soft paternalistic response. I go on to argue that the harms attendant to doping, as opposed to the regulated use of the medical profession to prescribe oral contraceptives, are of a potentially greater magnitude to the successful adolescent patient/sportsperson themselves in contrast to the relatively well-known risks of contraception. I also argue that the complexity of the weighing of potential harms and benefits are such that informed consent cannot be reached by adolescents. Moreover, given the public prominence of the WADA anti-doping legislation, and the general public support for it, there will necessarily be a lack of transparency in the potential consent process, which undermines any audit for the accountability of the consent process. I conclude that Gillick competence ought not, therefore, to be viewed as a precedent for paediatric or adolescent consent to doping and that the 'weak' or 'soft' paternalistic prevention of doping is justified.

The issues that orbit around the use of performance-enhancing drugs have been some of the most discussed issues in both descriptive and normative sports ethics. (For historical overviews, see Dimeo 2007; Hoberman 2002, 2006; Waddington 2005a. For philosophical overviews, see Brown 2001; McNamee 2008: 177–93; Miah 2004, 2005a). As is well known, the worlds of elite sport are regulated by the World Anti-Doping Agency (WADA) whose code (WADC) defines and proscribes certain processes and pharmacological products that comprise doping and which receive various bans from athletic competition as their sanction. The WADC, however, says nothing in detail or in particular about paediatric doping, nor does the international professional association for sports medicine (International Federation of Sports Medicine [FIMS]). There is then something of a lacuna here. With respect to adult doping I think it is fair to say that a significant

number of philosophers (Foddy and Savulescu 2007; Miah 2004, 2005a; Tamburrini 2000) are sceptical of the legitimacy of the bans on doping. A few notable scholars and scientists have written explicitly against public and political opinion and declared that the bans should simply be revoked if they are grounded purely on ethical considerations (Foddy and Savulescu 2007; Kayser *et al.* 2005; Savulescu 2007). Moreover, that scepticism has found its way into such august medical and scientific journals as *Nature* and *The Lancet*. Their liberalizing or libertarian approaches to doping are sometimes driven by a quasimedical lobby that advocates the use of technology for all aspects of human enhancement (for a critique of which see McNamee and Edwards 2006), and who view sport as a key vehicle for their legitimization. There is always the danger, in supporting the banning of certain substances or practices that one is considered a Cassandra or a timid, narrow-minded, conservative (see the caricature of the timidity of bioconservatives in Boström 2005a). Worse, for those who value their academic freedom, one might be seen as an apologist for global institutions such as the International Olympic Committee (IOC) or WADA. In his excellent analysis of paternalism with respect to the doping issue, Brown (1984) does not discuss the issue of paediatric or adolescent[3] doping in a sustained way (though there has been descriptive ethical work in the area: for example, see Laure 1997a; Laure and Binsinger 2007). He does write, however, of the potential vulnerability of young people to the harmful effects of doping (1984: 18) with risks 'far outweighing any possible benefits of temporary superior athletic prowess'. It will be thought by some that the wrongness of paediatric doping is self-evident. Perhaps this explains the lacuna in the pronouncement of official organs such as the FIMS, the IOC or WADA. To what extent is this presumption warranted?

What particular problems are generated when the populations under consideration are themselves legal minors? In this chapter I shall raise a number of problems and consider one central difficulty within the issue: the lack of capacity to consent to doping in an informed manner by a child or adolescent. Now since doping ought, according to the sceptics, to be permissible for adults it is at least open to question whether the same opportunity ought to extend ceteris paribus to legally competent children or adolescents. Moreover, there appears to be a prima facie precedent in medical ethics law where respect for the autonomous desires of one's patients is thought to be of paramount importance whether they are adults or, for the purposes at hand, competent minors. Thus I consider whether the notion of the well known legal test of 'Gillick competence' to contraception[4] in the absence of parental consent, sets a precedent for the child or adolescent who wishes to dope in order to enhance their sporting performance. Both scenarios certainly share at least the similarity that the child or adolescent might be considered competent to frame their conception of what is in their best interests. In exploration of these issues I distinguish, for the purposes of argument, two aspects of the problem. Firstly, I argue that there are particular and specific good grounds for paternalism with respect to sports legislation against paediatric doping, namely the exploitation of what is effectively a vulnerable population. Secondly, I compare and contrast Gillick competence with the possibility that a

minor might competently authorize a physician to assist their doping. I conclude that the former should not be thought of as a legal or ethical precedent for the latter. In order to buttress this position I present a range of evidence that underwrites the precautionary disposition I argue for and, in particular, argue that any consent an adolescent could proffer would be invalid due to an inability to weigh (with sufficient informedness and comprehension) the potential benefits and harms arising.

Is paediatric doping really a problem and if so what kind of problem is it?[5]

One might reasonably ask whether the question at hand is a hypothetical one. Do adolescents really engage in doping behaviours? A short answer suffices: indeed they do. There is certainly international evidence of a small but significant proportion of adolescents engaging in doping practices. The data available must, however, be treated with caution on a number of grounds. In the first instance, the dominance of research emanates from North America (Backhouse and McKenna 2011). It does not follow that the problem exists predominantly there. This may or may not be true. It merely indicates that more research is being carried out in the USA than anywhere else. Recent epidemiological surveys in the USA suggest that most children experiment with drugs such as alcohol, marijuana and tobacco (Greydanus and Patel 2005). Why should doping products be any different? Although mindful of the fact that they are USA-based, recent review articles suggest between 3 and 12 per cent of adolescent males have used anabolic androgenic steroids (hereafter AAS) at some point (Yesalis and Bahrke 2000), while others present figures of between 4 and 11 per cent (Calfee 2006), with an earlier study putting the rates at between 5 and 11 per cent (American Academy Pediatrics 1997).

A second methodological point refers to the construction of the research tool used to gather the data on paediatric doping. Kanayama *et al.* suggest there may be methodological weaknesses in such studies where high prevalence rates are deduced from questionnaire-reliant methodologies (Kanayama *et al.* 2007). In particular they express concern regarding the over-reporting of steroid use in females, although they also consider prevalence rates for adolescent males to be over-estimated. Kanayama *et al.* criticize questionnaires that refer generically to 'steroids' without further qualification (Kanayama *et al.* 2007). They argue that this leaves open the possibility of conflation with the use of non-performance-enhancing steroids such as corticosteroids (commonly used painkillers), which may lead the respondent to think that steroids are freely contained within sports supplements. The authors also criticize questions that refer to steroid use 'without a doctor's prescription'. This is especially important since this may be taken to infer that doctors commonly prescribe steroids whereas AAS prescription for girls is almost unheard of. Also reference to the number of 'times' steroids have been taken is misleading (Kanayama *et al.* 2007) because AAS tend to be taken in courses. 'Cycles' of AAS can last between six and twelve weeks (American

Academy Pediatrics 1997). It is suggested that as knowledge about these drugs has developed, through their wide reporting in the media, the likelihood of over-reporting steroid use through response to such ambiguities has reduced (Kanayama *et al.* 2007). Summarizing their position, Kanayama *et al.* maintain that earlier prevalence rates are unduly influenced by ambiguous research questions. (Kanayama *et al.* 2007).

Having established that there is such a phenomenon as paediatric doping (albeit one that appears more concentrated in the context of American high school athletics and one of whose prevalence we are not certain) we must also note that the practice is gendered. The use of AAS by females is reported to be lower, around 1 to 2 per cent admitting using steroids (Yesalis and Bahrke 2000). What kinds of substances are abused in the name of athletic success? Probably the greatest single family of substances ingested are AAS that are used to promote muscle growth. It is widely agreed that power-based sports are most vulnerable to doping and these are most likely to feature on a list of substances desired by paediatric athletes who are tempted to dope (Bahrke *et al.* 2000). But paediatric doping is not confined to AAS use. Laure *et al*. (2004) in a study of high school athletes in France, found of the 4 per cent of athletes who admitted doping at least once, 13 per cent specified peptide hormones. This group includes the human growth hormone, as well as tamoxifen[6] and EPO. Wanjek *et al.* also indicated use of growth hormone by German adolescents, 0.4 per cent of respondents compared with 0.7 per cent having used AAS (Wanjek *et al.* 2007). As Allen and Frost report, however, there is a lack of data concerning the psychosocial benefits or harms from recipients of human growth hormone, even in therapeutically indicated populations (Allen and Frost 2000). This point in particular, regarding the uncertainty of known effects, is an important component of the case for paternalistic measures with respect to paediatric doping.

Having established that the problem of doping is extant in adolescent sports, how ought we to frame our ethical responses to it? As I have said, perhaps most philosophers of sport, sport pedagogues and parents shudder at the thought of the untrammelled pursuit of athletic success that would drive their children or charges to such measures and would embrace a paternalistic stance against the would-be paediatric doper. Justifying the intuitive wrongness of paediatric doping, and the need for some paternalistic protection, is another matter. A fuller consideration of the issues would need to situate the ethics of paediatric doping in the broader context of philosophical discussions relating to children's rights to self-determination, or the much discussed right to an open future (Dixon 2007; Feinberg 1980a; Tymowski 2003). Given, however, the prima facie presumption of harm prevention for children it would seem we would need to consider the adoption of some 'weak' or 'soft' (Feinberg 1980b, 1986) paternalistic measure, which refers to the intentional overriding of a person's preferences when that person is thought incompetent to form a sufficiently rational and autonomous conception of their own interests. By contrast 'strong' or 'hard' paternalism (Feinberg 1980b, 1986) respectively refers to the overriding (or at least supplanting) of the desires of competent adult persons, a policy he thought ought only to apply in special cases.

Our scenario, referring as it does to legal minors, thus only invokes the possibility of 'weak' or 'soft' paternalism. Defenders of the child's potential competence may argue that where a child has capacity to comprehend the action and its risks and benefits any paternalistic intervention will be a 'hard' or 'strong' one. I shall argue, however, that only 'weak' or 'soft' paternalism typically applies in the context of paediatric doping. In defending this position I explore the possibility of constructing a rationale for justified paternalism in two phases: the first is that the population under consideration are vulnerable and therefore in need of protection, since the sports system (or key actors therein) exploits their absolute desire for athletic success. Having set out the paternalistic case I move on to a more in-depth discussion of the powers of consent of successful paediatric athletes.

Are paediatric athletes vulnerable?

What does it mean to say that paediatric athletes are vulnerable? To what or whom are they vulnerable? Firstly, it is necessary to accede that something more than the intrinsic vulnerability of all humans needs to be established. Hobbes long ago pointed out that even the strongest are vulnerable to attack in their sleep (Hobbes 1985). Moreover, most readers of this book, beyond the first flushes of youth, can testify to their being vulnerable to the ravages of aging and the reality of diminishing physical and psychological powers. What more can be said of paediatric athletes for us to consider them vulnerable to the extent of needing paternalistic protection? Being youthful, let us agree without argument that the life plans of adolescents' norms and identity-constituting attachments are to a certain degree in flux. That is to say, their life plans are neither fully formed nor fully informed. This will render them (potentially at least) vulnerable to certain controlling influences that may undermine their rational and autonomous decision making. Three such forms of improper influence – coercion, manipulation and persuasion – can readily be identified (Beauchamp 2001: 94–8). The limit case for improper influence was witnessed in the state-sponsored and medically supervised training of young East German athletes in the 1970s and 1980s (Spitzer 2006). Less dramatically, what often renders elite paediatric athletes particularly vulnerable, and requiring protection, is the manipulative or even coercive character of their relationship in the athlete–coach–parent triad. The wealth of evidence illustrating excessive parental influence over their children's future sports careers should not be underestimated (Dixon 2007; Tymowski 2003).

In order to develop this first point further it is necessary to stipulate a context for my concerns. It may be difficult to conceive why recreational paediatric athletes would succumb to the temptations of banned performance-enhancing processes or products.[7] For present purposes, however, I shall restrict my discussion of doping to already successful adolescent athletes. I have in mind contexts as diverse as senior high school baseball, basketball and football in large US cities, or professional soccer academies for youths in Europe or South America, or even the practice of recruiting five- and six-year-old jockeys to professional camel racing in the Middle

East (David 2005). What these scenarios share, is the potential for exceptionally lucrative financial contracts and high social status even from a very young age. (See David 2005: 160–78 for a critical review of the trade in youth sport labour.) I suggest that what makes elite paediatric athletes vulnerable to harms is the presence, whether real or perceived, of these enormous financial incentives whether as contracts or potential contracts (David 2005). The very presence of such inducements, and the international market in youth sport labour from which it has emanated, has the power sufficiently to corrupt clear thinking in relation to the adolescents' future interests. Taking unreasonable risks is not something we generally promote to the young. I agree with Russell (2007) that we ought not to inure children from all possible harms arising from sports, and indeed that exposing them to a restricted measure of them may indeed promote virtuous dispositions and powers of practical reasoning of value to them at all stages in their lives. But where the temptation to pursue highly specialized and potentially risky careers, ones that increase the possibility of harms, and/or foreclose broader development and thereby limit vocational and other social opportunities for growth and wellbeing, it is not in a child's interests that they be allowed to pursue them. (In holding this position I take it that I am in agreement with Russell [2007], who criticizes DADs [danger averting devices] because of their attempt to eliminate all physical risks from childhood leaving children thus unprepared for the risks that will surely attend their adult lives. This criticism does not extend to paediatric doping).

I therefore consider these lucrative inducements to be undue influences on the adolescent athlete. I am aware that it might be argued that these influences regularly affect competent adults who still favour risking their future health in elite or professional sport. Nevertheless, we typically allow their participation in sports out of a respect for their freedom to choose the activities they wish in so far as they do not harm others.[8] Leaving aside coercion and manipulation, which are unambiguously unethical practices, I have argued that the mere presence (or perception) of very significant financial rewards along with the tangible and ongoing elevated status of peers renders the adolescent vulnerable to decisions that do not properly weigh potential rewards and risks with present and future best interests. I am mindful that the discussion so far elides a potentially important distinction between children and incompetent adults. Thus far the argument would apply to both categories.[9] In what follows, however, I shall restrict myself to paediatric contexts (though I grant that the age of 18, which is typically taken for legal majority, is arbitrary as are the boundaries of the concept of childhood [see Archard 2004]). I have thus far assumed that successful adolescent athletes are vulnerable to the extent that their life stage does not typically permit autonomous decision making on matters of potential magnitude as is the case in doping. This assumed incapacity is compounded by the presence of significant financial rewards that may be thought to unduly influence their decision making, especially in the context of pushy parents or coaches. This argument may not persuade those who think that children have greater powers of autonomy than I have assumed thus far. I shall therefore proceed to argue that soft paternalism is necessary to protect paediatric sports populations from exploitation before discussing the shortcomings of their capacity to consent autonomously.

Exploitation, elite sports and paediatric doping

Everyday usage of the words 'exploit' or 'exploitation' does not necessarily embody negative connotations. People speak unproblematically about exploiting marketing opportunities in ways that are not morally troublesome. To exploit a thing with moral standing however is wrongful by definition. But why ought we to think of the elite paediatric sportsperson as being exploited in his pursuit of doping products or practices? In developing this discussion I will draw upon Stephen Wilkinson's defence of the (fairly remunerated and consensual) trade in organ selling even though I am not sympathetic with his positive conclusions for that particular project. With respect to ethical usage, to exploit something is to use it wrongfully. So exploitation becomes a species of instrumentalization. Wilkinson writes, 'A exploits B (in this sense) if A treats B merely as a tool for, or a means of, achieving A's goals' (Wilkinson 2003: 33). Underpinning what is morally wrong with this treatment of persons are two Kantian principles. Firstly, to treat someone instrumentally is to offend the categorical imperative by treating another person merely as a means (or instrument) to our own ends. Secondly, to treat another as fungible is to conflate the concepts of price and dignity; the former applies to all objects and subsumes their 'replaceability' but the latter does not, and to give a price to human persons is to offend their dignity.

Developing on these two foundations, two senses of exploitation can be discerned: 'disparity of value' and 'wrongful use'. The two instances of exploitations differ in that what is wrong is the particular use in question. Wrongful-use exploitation arises where one is used as a mere instrument for another's goals and thereby fails to treat the other as an end in themselves. Cases such as these abound in sports where surrogate glory or wealth is sought through the auspices of the adolescent or child. Perhaps the worst of recent cases arose in the Indian subcontinent where a child of four was being trained to run marathon distances clearly, in part, for the financial wellbeing of the coach. Wilkinson reserves the label 'wrongful-use exploitation' with 'instrumentalization' (Wilkinson 2003: 34–5) for cases such as these. It seems fairly clear that to force one's children to commit to work in elite sport for economic advantage (however mutual) is an instrumentalization of the child, but it is also the case that it offends something in the irreplaceable nature of childhood itself understood in a linear way: that the early stages of life are to be valued on their own terms and cannot be regained once past.[10] In such cases the adolescent, in the absence of parental and other's undue influences, instrumentalizes his or her youthful body. Moreover, exploitation can occur also in cases where one is unfairly used (under-rewarded). What we know of elite sports is that the vast majority of athletes will not earn the huge salaries we read about in *Time* or *Sports Illustrated*. That is not only the preserve of a tiny minority but is also restricted to a relatively small sample of sports that are caught up in the commodified media-driven elect. So it seems reasonable to say, on the basis of the tiny conversion rate between the 'hopefuls' and the 'successfuls', that putting one's health at risk in the case of doping is a dangerous long shot (even when it is the only possible shot an athlete has).

Regarding unfair-use exploitation, Wilkinson writes: 'Everything depends on the context in which the use takes place, on the relationship between the user and the used, and (most importantly of all) the quality of the used person's consent' (Wilkinson 2003: 43). His thesis is that where an individual is fairly rewarded there is no exploitation so long as the agreement to the conditions that are potentially deleterious to their wellbeing are properly understood and subject to the agent's own informed desires. Thus far I have questioned whether the fair reward argument holds water since so few paediatric athletes ever succeed to the professional arenas of adult commercialized sports and that the potential rewards induce risks that otherwise would not be entertained. But for the purposes of argument let us assume that some children so gifted in the natural lottery, with the requisite character traits, and a lorry load of good luck, are indeed destined to make it to the big game. Ought they to be allowed to consent to doping? I shall explore the propriety of this state of affairs via an analogy with the Gillick competence of adolescents to consent to contraception.

Gillick competence: a sketch

Given that our present concerns are philosophical more than juridical, I shall offer no more than a sketch of the idea of 'Gillick competence' and the subsequent 'Fraser Guidelines'[11] that are used widely in the medical world in the UK at least. The term[12] derives from the name of a parent, Mrs Gillick, who brought a case against the National Health Service in the UK for allowing her 14-year-old child to consent to contraception without her knowledge or authorization. The case turns upon the principle of respect for autonomy to determine one's life plan and the actions therein. Its locus classicus is John Stuart Mill's arguments pertaining to noninterference and self-determination. Loosely put, persons should be able to do with their bodies and their selves as they wish so long as they are of sound mind and do not harm others. Originally Mill held that 'idiots and infants' comprised the exception to his original formulation of the principle of noninterference/self-determination, but it has been extended in recent times to children who are possessed of the competence to understand the nature and consequences of the issue at hand. In medico-legal terms, the Gillick precedent allowed children who demonstrated the relevant competence to grasp the intervention(s) proposed, to accept or reject that treatment without parental authorization which had hitherto been normal practice. Might this precedent extend to a successful adolescent athlete, who wanted to dope?

Comparing and contrasting adolescent competence to consent to contraceptive treatment and doping

Are there good reasons for thinking that children or adolescents could properly be thought of as 'Gillick competent' to consent to dope? To begin with it will be useful to consider competence as a logically incomplete concept. It is analogous to the concept of fitness. One cannot properly ask the question whether X is fit,

without specifying the purpose for which one is or is not. So, with the idea of competence to consent, we should not expect a universally applicable answer. The question does not permit it. If we wish to know whether someone is fit to give consent, we must ask whether they are competent in the relevant sense. Culver and Gert refer to this as task-oriented competence (Culver and Gert 1982). For children or adolescents properly to give informed consent to the use of doping substances they must understand what they are being asked to do before they can competently give consent. Can we judge that children or adolescents are informable about the complex of benefits and harms that may attach to doping? We might have little confidence in the informability of paediatric athletes if we based our judgement upon what we know of present young elite athletes. Understanding the pros and cons of contraception seem straightforward by comparison. The young cyclists interviewed in Vest Christiansen's study had, unsurprisingly, heard about the blood-boosting drug EPO, but knew little about other potential doping agents such as growth hormone, steroids and amphetamines, and their potential effects (Vest Christiansen 2005).[13]

Though not informed as regards doping then, to what extent are adolescents informable and capable of comprehension of the task at hand? Given the scientific controversy that surrounds the efficacy in addition to the health-threatening effects, of various products that fall under WADA's banned list, it is difficult to comprehend how anyone without a degree in the relevant biomedical sciences could come to a reliable understanding of the scientific benefits and costs or risks of all the various doping substances and processes. This is especially so given that it is widely thought athletes have used therapeutic drugs not tested on healthy populations, or that they use off-label medications, experimental drugs, and that they are often required to 'guesstimate' appropriate dosages and cycles. This lack of knowledge of side-effects following usage may undermine both adult and adolescent populations – at least for many doping products and processes. This picture of uncertainty regarding doping effects is not homogeneous. While side-effects of AAS are relatively well-known for adults, those for creatine (a very widely used synthetic substance used for the production of explosive power and which is not banned) or recombinant human growth hormone (banned) and other products are not known in full either by scientists or physicians. As I have noted above, doping use may be thought to be experimental without the protocols of (e.g.) randomized controlled trials or evidence-based decision making. And this may be because of the experimental nature of the drug, or its unique application to nontherapeutic purposes, or merely that its efficacy in therapeutic cases renders uncertain its effects in patients not suffering from any medical condition.

Moreover, a more general point about paediatric pharmacology is worth making. It is well known that very few of today's paediatric prescription drugs were ever tested on paediatric populations (Conroy 2000). Indeed, it is widely thought unethical to experiment on populations without direct therapeutic need and benefit (Edwards and McNamee 2005). And so the pharmaceutical industries statistically extrapolate dosages from adult populations. The lack of awareness of the effects of performance-enhancing drugs on paediatric populations is

expounded by the American Academy of Pediatrics Committee on Sports Medicine and Fitness (American Academy Pediatrics 2005: 1104). Virtually no experimental research on either the ergogenic effects or adverse effects of performance-enhancing substances has been conducted in subjects younger than 18 years. This gap in understanding threatens to radically undermine the possibility of informed consent by adolescents. It also brings into serious doubt even the possibility of adults or physicians advising adolescents as to what would be in their best interests so as they could come to an informed decision. Nevertheless, most professional bodies in relation to sports medicine and sports governance assert the harmfulness of AAS, and the potential of other such substances, and this is one of three criteria by which such products and processes are banned by WADA.[14] Baker *et al.* note that:

> The FDA in the United States has received more than 800 reports of adverse effects associated with use of products containing ephedrine alkaloid since 1994. These serious adverse effects include hypertension, palpitations, neuropathy, myopathy, psychosis, stroke, memory loss, heart rate irregularities, insomnia, nervousness, tremors, seizures, heart attacks, and death.
>
> (Baker *et al.* 2006: 481)

If we compare this Pandora's Box with the potential physical and psychological harms of contraception it seems that both the scope and the magnitude of potential harm is magnified in doping. While the ingestion of oral contraceptives is not entirely without risks it is, by comparison, regulated and the professional practitioners who prescribe it have extensive knowledge and have undergone professional training. Moreover, it is performed under conditions that emphasize the health and safety of the patient.[15] Given the public prominence of the WADA anti-doping legislation, and the general public support for it, there is a resultant lack of transparency in the potential consent process. This lack of transparency renders all but impossible any audit for the accountability of the consent process. Compared, however, with the unregulated practice of 'ethnopharmacologists' (often entrepreuneurial graduates in biochemistry who have little or no concern for the health of those whom they supply drugs to [Monaghan 2002]) it may be safe to assume that the risks are rather more controlled – though clearly one could not be anywhere near as confident with 'backstreet abortions', which may be a more like-for-like comparison.

In certain communities the use of oral contraception may result in the excommunication of the potential mother. This clearly constitutes an exception rather than the rule. Whether merited or not, however, doping cheats at the elite level face the full sanction of the sports communities which partly constitute their emerging identity. WADA's rules indeed prevent those found guilty of doping even from training with their respective clubs or teams. Moreover, high-profile doping cheats make good copy: there is little chance of escape from the media's scrutiny and subsequent schadenfreude. In terms of status, those convicted are required to hand back those medals won under unfair conditions. Moreover, in the

UK at least, those guilty of doping violations are required to pay back state funding since they have broken their contract to compete 'clean'. Given the fleeting nature of athletic careers, many of which are not lucrative despite the publicity given to footballers' grossly inflated wages, being convicted of doping can mean serious financial hardship. It seems difficult to conceive of adolescents being able to consider so seriously the mid- and long-term consequences of getting caught, which would be necessary for them to be considered competent to consent to doping. That much said, the complex factors that attend abortive surgery are hardly less weighty. What may be said in their favour, perhaps, is the possibility of reversibility: except in tragic circumstances the potential mother may elect to become pregnant and give birth at a later date. The analogous option may not be realistic for the doping athlete who is caught, since their period of excommunication is intended precisely to be an effective end to their athletic careers. With respect to adolescent contexts, it would be a strong-minded individual indeed who continued to train at the highest levels for one, two or four years while being unable to compete or receive financial assistance to allow them to focus on developing their athletic potential.

Another socio-psychological factor to be considered is whether Gillick consent to doping would be properly understood in relation to future addiction. We may cast drug abuse in sport more generally as a paediatric issue since the genesis of doping behaviour can begin in adolescence. (For example, one study of high school American football players found students starting even earlier, the average age of first time users was 14 years. More alarmingly, 15 per cent of the athletes began taking AAS before they were aged ten [Stilger and Yesalis 1999]). A further important consideration then will be something like a slippery slope argument; if we permit doping in paediatric sports will this serve to legitimize, for example, wider drug abuse, or even genetic modifications? It is a serious concern then that doping may lead the adolescent on a path to addiction to a point where autonomous decision making is itself undermined:

> Youth with life choices and options that are perceived as being limited are more likely to engage in high risk behaviors, such as substance abuse and unprotected sexual activity. Youth may rationalize or perceive other social or personal 'benefits' from substance abuse that override any identified health concerns. Many of them do not realize the negative consequences of drug use and abuse; some even believe that it is normal to use various drugs. The greatest risk for long-lasting dysfunctional patterns of substance abuse is the onset of use before age 15.
>
> (Greydanus and Patel 2005: 394)

It might be argued that I am sliding together here issues of performance-enhancing and social drug use. There is some truth in this claim but also some justification for it. One of the key issues regarding illicit doping is that of access. Athletes in some sports have potential access to doping products through the frequenting of, among other places, fitness gyms where off-label use of pharmaceuticals is rife

(Monaghan 2002). So the elision, in terms of the possibility of gateway drugs, to increased access to other drugs is not unreasonable.

A more substantial philosophical response to this position might be to say, well we must not conflate rational autonomy with prudence. (I develop this point in the context of risky activities in McNamee 2007.) Rawls' (1972) well-known thought experiment might apply here: ignorant of personal individuating facts (such as age, intelligence, ethnicity, sexuality and so on), rational agents necessarily choose prudent laws because they are unaware that they would benefit or be harmed by their future application. But why not entertain risky lifestyles? Why ought 'chronological parochialism' (Brown 1990) necessarily prevail? In relation to adult doping, Tamburrini has questioned whether we may justifiably link this phenomenon with widespread drug abuse (Tamburrini 2000). This position is undermined, however, by the millions of dollars commercial companies pay to sports icons to promote their product, based, as it is, on a wealth of data concerning the appreciation of market brands even by very young children. As Greydanus and Patel note that a career of substance abuse may pivot around adolescent years thus we are properly protective of this time slice (Greydanus and Patel 2005). Moreover, a recent international study found that those athletes who use ergogenic nutritional supplements were more likely to report doping too (Papadopoulos *et al.* 2006). Perhaps the most important issue at hand here, from a public health perspective at least, is whether AAS or other preferred doping substances are 'gateway drugs' (Kandel and Logan 1984). These substances are so described for the reason that their use increases the likelihood of progression to other drugs. Moreover, given the motivational differences between doping substances it is not clear how we should think of the most common substances such as AAS, EPO or hGH. A questionnaire-based cross-sectional study in Sweden of more than 2,000 16–19-year-olds, led Kindlundh *et al.* to suggest that the motivation to enhance performance and body appearance has commonalities with other forms of substance abuse (Kindlundh *et al.* 1999). Of course, this in itself does not lend authoritative support for the application of the gateway principle. One might think that if the adolescent has got to the point of using doping substances that the athlete has crossed a line in his[16] attitudes toward rules and the perceived value of the perfection of his capacities (see, for example, Gregory and Fitch 2007).

Why not go further? The point is moot. Perhaps what is most interesting is not the nature of the drugs themselves but the cultures into which the choices and behaviours are generated or the networks into which adolescents must operate if they are to access such drugs (Kandel and Logan 1984). But the evidence does not exist to warrant anything other than the application of a precautionary and thus soft paternalistic approach. In this section I have presented argument and evidence regarding the complexity of which renders it problematic to think that adolescents might typically comprehend the nature of doping and its attendant benefits, harms and the risks and probabilities that pertain to them. And I have contrasted it with the relatively well-known exposure to such in the case of consent to contraception in Gillick-like cases. Despite the palpable fact that physicians have assisted in paediatric doping, I have challenged the legitimacy of the physician who would

advise an adolescent that it would be in their best interests to dope on the grounds of potential harm and the incompleteness of medical understanding of doping products and processes with nontherapeutic adolescent populations of which our hypothetical successful athletes are one.

Conclusion

I have tried to show how the issue of paediatric/adolescent doping is one that merits serious attention. While the philosophical literature on doping rarely considers paediatric populations, it seems the case that the legitimacy of their pursuance of these products and processes might be thought to fall under the conceptual province of 'Gillick competence' to consent to contraception. In this case, as sometimes happens elsewhere in the doping debate (Foddy and Savulescu 2007; Savulescu 2007), we would be transposing a norm – like harm prevention – from medical ethics into the domain of sports ethics. Unlike the Gillick case I have tried to articulate the background to the successful adolescent sports world, the vulnerability of athletes therein and the tendency toward their exploitation. With specific respect to the capacity of adolescents to actively consent to doping I have adopted a precautionary approach. Although the gravity of both decisions is manifest, I have argued that the harms attendant to doping, as opposed to the regulated use of the medical profession to prescribe oral contraceptives or terminate pregnancies under conditions of nonparental consent, are of a greater magnitude to the successful adolescent patient/sportsperson themselves. I have also argued that the disputed scientific bases for the harms of paediatric doping are such that the informational requirements of informed consent render any would-be consent invalid and would undermine the legitimacy of a physician who advised an adolescent to dope. I conclude that Gillick competence ought not, therefore, to be viewed as a precedent for paediatric or adolescent consent to doping and that the 'weak' or 'soft' paternalistic prevention of doping is justified.

Notes

1 First appeared in *Journal of the Philosophy of Sport* (2009), 36(2): 111–26, with the title 'Beyond consent? Paternalism and pediatric doping'.
2 This address was given as the Warren P. Fraleigh Distinguished Scholar Lecture for the International Association for the Philosophy of Sport, Tokyo, Japan, September 2008.
3 I shall use these terms interchangeably throughout the chapter.
4 I note that it has been suggested that the competence may even extend to adolescents who wish to have abortive surgery.
5 I gratefully acknowledge the assistance of Andrew Bloodworth with whom I compiled two reviews of literatures on doping ethics for UK Sport as part of social scientific studies on the values and norms of elite young athletes with respect to doping (Bloodworth *et al.* 2012). Parts of this section are reworked from those reports.
6 So as to avoid the appearance that this is a US phenomenon, consider the research of Baker *et al.* (2006) in the economically deprived Valleys of South Wales in the UK, who found 22 per cent of the respondents in a study of health club users used tamoxifen, a substance that is described as a 'nonsteroidal antiestrogen for women with ductal

carcinoma in situ (DCIS) and for women at high risk of breast cancer' (Baker *et al.* 2006: 481).

7 I do not mean by this to suggest that recreational doping is rare or unimportant. It clearly is a matter of serious concern in the West where many seek pharmacological enhancement of their physicality in order to achieve greater social capital that goes along with a muscle-bound appearance (Baker *et al.* 2006; Monaghan 2002).

8 There are exceptions to be noted. In Italy, for example, preparticipation heart screening is compulsory for those engaging in sports. Moreover, all professional boxers have mandatory brain scans.

9 I am also mindful that the incompetence argument was attempted in defence of Ben Johnson at the Dubin inquiry. It was argued, unsuccessfully, that his powers of autonomy were sufficiently etiolated (in addition to the fact that his relationship with his training entourage so manipulative) as to serve to reinforce his heteronomy.

10 It is, of course, true that no time slice can be replaced once past. Nevertheless, the time of life which is the object of this discussion is particularly valuable owing in part to maturational issues of a biological and psychological kind. In these years significant harms may attend drug use as has been witnessed in the East German state-sponsored scenario noted above.

11 The Fraser Guidelines are issued to UK doctors in scenarios such as paediatric consent to contraception in the absence of parental or proxy consent: (i) the young person will understand the professional's advice; (ii) the young person cannot be persuaded to inform their parents; (iii) the young person is likely to begin, or to continue having, sexual intercourse with or without contraceptive treatment; (iv) unless the young person receives contraceptive treatment, their physical or mental health, or both, are likely to suffer; and (v) the young person's best interests require them to receive contraceptive advice or treatment with or without parental consent.

12 There is some dispute as to whether this appellation is sufficiently accurate for it to persist as common currency (Wheeler 2006).

13 This, too, has been my experience in conducting ongoing focus groups and interviews with over 80 elite 16–21-year-old athletes in the UK (41 unpublished; 42 unpublished) (Bloodworth *et al.* 2012).

14 The others being that the substance is performance-enhancing and against the spirit of sport. The code adopts a policy of banning where at least two of the three criteria are met (or where a masking agent has been used to avoid detection of a product or substance under that rule).

15 Notwithstanding this generalization it is necessary to note that very considerable disquiet has been registered by political and religious communities about the validity and reliability of the statistics on mortality rates in abortive surgery. This would need to be borne in mind if comparing doping with more serious medical interventions.

16 As I have indicated above, the statistics bear out the masculine reference.

13 The spirit of sport and the medicalization of anti-doping

Empirical and normative ethics[1]

Introduction

There has been much discussion at academic conferences and among sports policy makers with respect to the role of anti-doping (McNamee and Møller 2011; Hanstad *et al.* 2008). Put simply, there is a potential schism about the overarching function of anti-doping – is it first and foremost a sports-related issue, or is it more generally to be understood as a public health issue (Møller *et al.* 2009)? It is clear that these two aspects are not mutually exclusive such that the question cannot simply be a case of which should be its focus. Sports are, after all, social practices, engaged in by hundreds of millions of people. What goes on in these practices, to the extent that it affects the health of its participants, must also be a public health issue, irrespective of its (disputed) significance. Nevertheless, one particularly problematic aspect of present anti-doping policy relates to the existence of what are often and variously referred to as 'social drugs', 'recreational drugs' or 'substances of abuse', in the list of prohibited methods and substances that comprise 'doping' as defined by the global body responsible for anti-doping: the World Anti-Doping Agency (WADA). The focus of this article is whether and how the presence of cannabinoids on the Prohibited List (PL) is justified or not. Many scholars, scientists and key actors in anti-doping policy – in confidential interviews – have argued that it should not be included. They argue that the presence of cannabinoids on the PL is merely an extraneous and unwelcome function of governmental intrusion on sport and not because of any coherent anti-doping policy. In effect, it is thought to be a political intrusion that is paternalistic and, in effect, a 'moral policing' of high-profile athletic populations. They argue, moreover, that the criterion, which facilitates cannabinoids' inclusion on the PL (that it is against the 'spirit of sport'), is conceptually vague and should be removed. They believe this will negate the presence of cannabinoids on the PL. In short, they seem to be arguing that cannabinoid use ought not be thought of as 'doping'. In this chapter, I argue to the contrary that cannabinoids should be retained on the Prohibited List; that their use may be thought of as doping; and that the spirit of sport criterion, though vague, is still a defensible criterion for the demarcation of 'doping'. To achieve this, I critically discuss the legitimacy of cannabinoid inclusion in the

light of contemporary literature on 'enhancement', and introduce the findings of a recent empirical investigation into anti-doping policy with a sample of international key actors in anti-doping policy.

In the first section, I describe the definition of doping and the current state of policy flux in anti-doping, then I set out the extant and the proposed criteria for a method or substance to be considered doping (i.e. for inclusion on the Prohibited List). I then review one bioethical critique of the spirit of sport criterion (Savulescu and Foddy 2007) and a recent challenge by an internationally recognized group of scholars and scientists working in the field of anti-doping (the International Network of Humanistic Doping Research) to remove the criterion. I then include narrative data from key actors on the international scene of anti-doping such as heads of national anti-doping organizations, heads of medicine and science in anti-doping organizations, and senior members of the World Anti-Doping Agency (WADA), before arguing against their position and for the status quo.

What is doping, and what are the criteria by which a method or substance may be considered for the list of prohibited methods and substances?

Following the Ben Johnson scandal at the 1988 Seoul Olympics, the subsequent Dubin inquiry and the Tour de France scandal in 1998, the IOC established a working group to formulate a robust and independent international body to regulate doping in sport. In consequence, the WADA was set up. Following a UNESCO convention, signed by nearly all nation-states in the world, the World Anti-Doping Code (WADC) came into effect in 2003. It was agreed that WADA would be funded jointly by nation-state signatories and the Olympic Movement, while national anti-doping organizations (NADOs) are funded by nation-states but are typically – though not always – independent of direct political control. This system of dual funding is germane to later considerations of the chief functions of an anti-doping organization (ADO).

The WADC, which is the heart of global anti-doping policy (ADP), was amended in 2009 and this second revision is still in effect. It is currently in the second phase of its second revision. On 1 January 2015, the third version will come into operation. It is important to detail both since there is a significant conceptual shift in procedure. Since 2009, the WADA has defined doping in relation to a violation and then it subsequently laid out a procedure and criteria for inclusion as follows. The definition of doping is consistent between 2009 and the proposed 2015 Code. It is a formal definition only in terms of the types of violations that exist. There are only minor amendments to the nature of anti-doping rule violations (ADRV) and therefore the current revisions (2015) are cited here. What becomes evident then is that doping is not per se defined by prohibited substance ingestion. That is one, perhaps the most typical but not the only form that doping can take.

Thus:

ARTICLE 1 DEFINITION OF DOPING
Doping is defined as the occurrence of one or more of the anti-doping rule violations set forth in Article 2.1 through Article 2.10 of the Code.

WADC 2015 – Version 1.0
Additionally, the following constitute anti-doping rule violations:
ARTICLE 2 ANTI-DOPING RULE VIOLATIONS [ADRVs]

2.1 Presence of a Prohibited Substance or its Metabolites or Markers in an Athlete's Sample.
2.2 Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method.
2.3 Evading Sample Collection.
2.4 Filing Failures and Missed Tests.
2.5 Tampering or Attempted Tampering with any part of Doping Control.
2.6 Possession of a Prohibited Substance or a Prohibited Method.
2.7 Trafficking or Attempted Trafficking in any Prohibited Substance or Prohibited Method.
2.8 Administration or Attempted Administration to any Athlete In-Competition of any Prohibited Method or Prohibited Substance, or Administration or Attempted Administration to any Athlete Out-of-Competition of any Prohibited Method or any Prohibited Substance that is prohibited Out-of-Competition.
2.9 Complicity in an Anti-Doping Rule Violation.
2.10 Prohibited Association.

(WADA Code 2009)

The number and heterogeneity of forms that ADRVs can take are noteworthy. Doping, thus defined and contrary to everyday understanding that it is biotechnological cheating, is not a unified phenomenon. Instances 2.1–2.3 are the object of discussion in this chapter. It should be noted that 2.4 is a frequent ADRV, since athletes who think they may submit a positive sample often simply refuse to answer the door to a doping control officer, flee the scene or do not locate themselves at the time and place they have promised to be at according to the 'whereabouts' data they have submitted.[2] The object of most discussions in the ethics of anti-doping revolves around which substances should comprise the PL. In the current version (prevailing since 2009), it is held that at least two of the following must apply:

4.3.1.1 Medical or other scientific evidence, pharmacological effect or experience that the substance or method, alone or in combination with other substances or methods, has the potential to enhance or enhances sport performance;
4.3.1.2 Medical or other scientific evidence, pharmacological effect or experience that the Use of the substance or method represents an actual or potential health risk to the Athlete;

> 4.3.1.3 WADA's determination that the Use of the substance or method violates the spirit of sport described in the Introduction to the Code. (WADA Code 2009)

In addition, included is a category widely referred to as 'masking agents':

> 4.3.2 A substance or method shall also be included on the Prohibited List if WADA determines there is medical or other scientific evidence, pharmacological effect or experience that the substance or method has the potential to mask the Use of other Prohibited Substances or Prohibited Methods. (ibidem)

The criteria may thus be summarized as follows:

1 (potential) performance enhancement;
2 (potential) health risk;
3 (potential) violation of the spirit of sport.

I shall ignore the masking function set out in 4.3.2. It is clear that the use of the qualifier 'potential' gives the medical and scientific sub-group that determines the PL considerable latitude. Moreover, it is frequently noted that the operations of this group are not transparent. The WADA's defence of this position is based on the fact that in declaring their discussions, and the evidential basis for them, they may actually assist doping efforts by individuals and Athlete Support Personnel (ASP) such as sports physicians, scientists, pharmacologists, and so on.[3]

In philosophical terms, the 'at least two from three' procedure takes advantage of what philosophers call 'defeasibility'. In the early days of analytical philosophy, it was widely thought that the meaning of concepts might be precisely understood in terms of analysis of linguistic usage that would yield individually necessary and jointly sufficient conditions (or criteria or rules) for the proper application of concepts. The work of Wittgenstein drew attention to the limitations of this theory of meaning. Where such boundedness of meaning might apply, say, in geometric concepts (e.g. a triangle is a: (i) plane shape; (ii) internally bounded; (iii) whose internal angles sum to 180°), natural languages were mostly populated by words whose meanings could not be understood independently of their usages, which were understood in a context-sensitive fashion. Friedrich Waisman, who had collaborated with Wittgenstein in the middle of his career, published a theory of the open-textured nature of certain concepts (Waisman 1965). Their meaning cannot be fixed rigidly to a set of conditions that exist or may come to pertain. Famously, Wittgenstein used the word 'game' to illustrate the plasticity of meaning, revealed in the myriad of comprehensible uses to which the word 'game' might be put, which seemed to have no essence but that were loosely related to each other. All that the different uses of the word had in common were a number of 'family resemblances' (Wittgenstein 1953). This openness, he noted, did not hinder our use of those words or concepts.

H. L. A. Hart's account of legal concepts developed the notion of defeasibility. He recognized that there were clear and less clear concepts in law just as there were clear cases of application and hard ones. In the latter, considerable interpretive work was necessary. In certain concepts, he argued, the criteria are 'underdetermined'. We employ defeasible interpretation when only some but not all of the required criteria apply. This allows us to recognize cases or instances that an action falls under while not fully satisfying what are thought to be exhaustive criteria. While Hart's easy/hard conceptualization rests on accepting the more radical account of language and concept acquisition that Wittgenstein advocated, the idea of defeasiblity is helpful in understanding the concept of doping generally, and the spirit of sport specifically. Savulescu and Foddy attack the WADA's claim that '[d]oping is fundamentally contrary to the spirit of sport' (Savulescu and Foddy 2007). They argue that it appears to be setting out a condition: if x is not fundamentally contrary to the spirit of sport, it is not doping. And this is how Savulescu and Foddy (2007) interpret the statement. They, however, misquote the WADA. They write:

> However, the Code goes on to say explicitly that all '[d]oping is fundamentally contrary to the spirit of sport'. In other words, if a drug is banned because it is both harmful and performance enhancing, it is necessarily considered to violate the spirit of sport as well. This statement contradicts the 2-out-of-3 rule because it adds this spirit-violating property to every banned group. Perhaps this is a mistake, but if it is not, then WADA and its supporters are not seriously worried about health risks. Neither are they seriously worried about performance enhancement.
>
> (Savulescu and Foddy 2007: 512)

As I have said, this is an illustration of how a concept's openness or under-determination allows for misreadings. The point of defeasible criteria is to allow for the application of criteria that are not jointly sufficient. The meanings of words can mutate and shift in relation to the contexts of their use. The WADC does not say 'all doping', which is what Savulescu and Foddy accuse it of. The simple addition of one word leads them astray in their critique. Nevertheless, they have pointed to a lack of clarity that might easily have been avoided. It can seem in tension with their two-from-three, defeasible approach. Simply removing the statement would help avoid this charge. Moreover, because of the lack of transparency of the PL group, we do not know in practice whether it is the spirit of sport criterion or the risk to health criterion that dominates the thinking of the committee. Since it is populated by physicians, medical scientists and researchers, but not philosophers or social scientists, there is every reason to suspect it is the former, not the latter, which predominates. If this assumption is true, then what is happening appears to be an unjustifiable form of medicalizing doping. If it is not, then we might reasonably ask on what basis the judgements are being made as to the spirit of sport in the absence of those with any expertise in the ethics of sport and human enhancement more generally.

Two points of application arise from this very brief account of meaning and its application. Firstly, the heterogeneity of ADRVs does not detract from our comprehension of the phenomena but merely illustrates how a prescriptive definition can serve clear policy purposes for actions that range broadly. Definitions serve many functions. It could be argued that in offering ten separable ways of committing an ADRV (and by defining doping exclusively in terms of defeasible criteria), they are allowing for a conceptual inflation that renders the 'doping' more problematic. Yet no one has made this complaint. Scholars and scientists, and anti-doping personnel themselves, have made precisely this complaint against the spirit of sport criterion, though. My point here, then, is that if the complaint of defeasibility is to be taken seriously, it should apply to the definition of doping itself and not merely to the spirit of sport criterion. But I do not think it should in either case. Insights into the philosophy of language already solve the problem of essentialism, there is no need to resurrect it: doping is a heterogeneous phenomenon; and the 'spirit of sport' is an open concept.

Secondly, and more promising for critics of extant ADP, it is still a moot point whether there might be some necessary condition but no set of jointly sufficient conditions. In the following, I shall show how both these points apply. In the case of the former, the phenomena of doping are so varied that defeasibility is a proper manoeuvre and the other criteria are open to the same objection, so simply ridding ADP of the spirit of sport will not solve the problem.

Critics of the spirit of sport criterion: vagueness, scope, application

This is what the WADA says about the spirit of sport:

> The spirit of sport is the celebration of the human spirit, body and mind, and is characterized by the following values:
>
> - Ethics, fair play and honesty
> - Health
> - Excellence in performance
> - Character and education
> - Fun and joy
> - Teamwork
> - Dedication and commitment
> - Respect for rules and laws
> - Respect for self and other participants
> - Courage
> - Community and solidarity.

WADA's list of values falls far short of a definition of the 'spirit of sport'. Note that it does not claim to be one. It merely says that the aforementioned are features that 'characterize' the spirit of sport. Nevertheless, Savulescu and Foddy argue

vigorously that the spirit of sport criterion is inadequate (Savulescu and Foddy 2007). They assert that this is the WADA's attempt to 'define' the spirit of sport but that is not a fair criticism, as we have seen above (Savulescu and Foddy 2007: 511). WADA does not offer a definition. Moreover, they write that '[t]his may be a good list of features that embody the aspirational "spirit of sport". But as a way to choose which drugs to ban, it is terrible'. WADA's list of values is inadequate as a description of how sport is practised universally, and this is often how critics understand it. Savulescu and Foddy are closer to a better understanding of the function of the list when they call it 'aspirational'. Though the WADA does not say this, I think it better to understand the spirit of sport as an ideal. Under this conception, the argument would run as follows: this is what sports look like ideally, and this is the standard we shall use partly to determine what may be considered on the Prohibited List, not, pace Savulescu and Foddy, what will count as doping. I shall elaborate on this point below.

For now, I merely summarize Foddy and Savulescu's complaint that the list of values is ineffective in distinguishing licit from illicit means of performance enhancement. There is some substance to this view. Nevertheless, what can be said in a spirit of charity is this: WADA's list of values is an incomplete, unsystematic and unstructured account of key values that are in association with ethical sport. It is incomplete since, if one were setting out an ideal, one would need to offer a fuller account of the range of personal and social virtues that would sustain an ethical conception of sport. Present in this list are both 'respect' and 'courage' and though these are important, no one would pretend they were exhaustive. The list is unsystematic. We are not offered a framework that is hierarchical or ordered in some way that might distinguish what is elemental from what is peripheral. The list is unstructured. Some values refer to individual virtues (e.g. respect, courage), others refer to social virtues (e.g. solidarity), and some others bridge technical and ethical aspects (e.g. excellence). The relation between health and sport is ambiguous. Elite sport has little to do with biostatistical understandings of health (e.g. Boorse 1977), but then elite sportspersons are not 'normal' in a biostatistical sense. Teamwork neither promotes nor mitigates doping. It is not a truism that excellent performance is to be understood only in the absence of doping. And so on. The critique of the list could be extended considerably. What can be said in agreement with Savulescu and Foddy (2007) is at least this: what the spirit of sport criterion is taken to mean and how it is to be used is unclear. Given that the WADC is currently in the middle of a two-year review, we can ask whether the 2015 proposed version (at the time of writing) has made good on any of the argumentative, philosophical or procedural deficiencies.

WADA's redefinition of the criteria for inclusion on the Prohibited List (PL)

'Mission creep' is a political term of art that has gained currency lately. Is this true of the WADA? Part of the criticism of the WADA is that its extension into matters of public health extends its scope into matters concerning civil society that are

beyond its remit. The issue that most clearly begs the description 'mission creep' in anti-doping is the inclusion of cannabinoids on the PL. How they merit inclusion on the list is thought to be a function of the vagueness of the concept of the spirit of sport, the failure of the WADA to remain true to its core activities and sports focus, and the politicization of sport's ADP. A group of international scholars and scientists, partly in response to the medicalization and scientization of doping and anti-doping, recently formed to establish the International Network of Humanistic Doping Research.[4] In a recent publication, members of the network led by Professor Ivan Waddington, a medical and sports sociologist, appealed to the WADA to remove the spirit of sport criterion, and retain the focus on cheating in sport qua doping. They wrote:

> We hold that it is nonsensical that an athlete can be banned under WADA rules for consuming a drug which has no performance-enhancing effects, for it is precisely the performance-enhancing nature of a substance which is the central defining characteristic of doping; in effect, this regulation means that athletes can be punished under the anti-doping code for a form of behaviour – the use of recreational drugs which are not performance enhancing – which is not cheating and which does not constitute 'doping' in any meaningful sense of the term.[5]

Firstly, there is, of course, an element of rhetoric in this claim. Contrary to the assertion, it is perfectly 'meaningful' that if one prescriptively defines a concept (doping) in relation to three defeasible criteria, which includes the spirit of sport (which itself is partly characterized by 'health'), then recreational drug use may be thought of as doping. But there is a point, however insufficiently precise it has been made in the above quotation. I shall return to this point. Secondly, they offer no strategy to support their essentialist claim that performance enhancement is the 'defining characteristic of doping'. I have indicated above how a defeasible approach is to be preferred. Indeed, it is too minimalistic a conception of doping. One might wish to add criteria like 'deception' and 'unfairness' to the list of potential criteria such as one might wish to argue that certain modes of enhanced recovery were to be thought of as doping too. To reiterate: doping is itself a heterogeneous phenomenon that underscores a defeasibilist approach.

Nevertheless, the WADA (whether in response to the call or not) has modified its stance with respect to the criteria in line with the call above. In the current proposed version of the Code review (the second of three phases), it has amended the WADC as follows:

> 4.3.1 WADA shall consider a substance or method for inclusion on the Prohibited List if it determines in its sole discretion that the substance or method alone or in combination with other substances or methods has the potential to enhance or enhances sport performance and the substance or method meets, **in addition**, one of the following two criteria:

> 4.3.1.1 Medical or other scientific evidence, pharmacological effect or experience that the Use of the substance or method represents an actual or potential health risk to the Athlete;
>
> 4.3.1.2 WADA's determination that the Use of the substance or method violates the spirit of sport described in the Introduction to the Code.
>
> (WADA 2013; bold emphasis added)

What this reformulation entails, in philosophical terms, is a twofold strategy. First, it establishes performance enhancement (PE) as a necessary condition or inclusion criteria for the PL: it leaves defeasible the health and spirit of sport criteria. The critics from the INHDR might now cheer since it seems foreseeable that recreational drugs may readily fall under 4.3.1.1 and 4.3.1.2, but not under 4.3.1 (the PE condition), and therefore be ineligible as doping. It would appear that this objection, to expanding doping into public health and private morality, has been altered by the WADA. The academic signatories to the call have further ethical and political objections that merit careful consideration in support of their cause. They write:

> It is clear that WADA's third criterion for inclusion – that the use of drugs is against the vague concept of the 'spirit of sport' – performs a 'catchall function'; it provides an argument for the banning of recreational drugs whose use cannot be banned on sporting grounds, that is on grounds of performance-enhancement. It is important that we, and WADA, are clear about the implications of this rule: since WADA may suspend an athlete for the use of recreational drugs which are not performance-enhancing. WADA is, in effect, using anti-doping regulations in order to police personal lifestyles and social activities which are unrelated to sporting activities.[6]

In terms of their argument, what is claimed is that the idea of the spirit of sport criterion cannot be used to impose a(n) (apparent) public morality on athletes who may or may not choose to use cannabinoids in their non-sport time. They are not alone in this view. Consider a perspective from an athlete trade union in Europe offered to the author in interview for a European empirical ethics study:

> Regarding cannabis, our position is that it is not a performance-enhancing substance and should not be included on the list. Athletes using marijuana hurt their teammates more than their competitors. Marijuana use is not cheating or sport fraud. WADA has enough to handle with real doping. It is important to note that collectively bargained anti-doping systems in the US distinguish between substances of abuse and performance-enhancing substances. A rehabilitative approach would make more sense rather than a punitive one. Politics and punishment, unfortunately, go together on this one.
>
> (Code: AT1)

Here there is recognition of (potential) harm to participants but it is held that doping ought to be conceptually restricted to performance enhancements that create sporting injustices. Moreover, it suggests a public health approach to substances of abuse, and a punitive approach to (its restricted conception of) doping. The move has much to recommend it in terms of apportioning different policy responses to differently motivated acts. A principle can be established from both quotations: recreational substance (ab)use does not threaten the spirit of sport. That their use is a health risk has been disputed for many decades though some recent research is fairly clear on the relationship (see Meier *et al.* 2012; Gonzalez and Swanson 2012). Under the 2009 tripartite defeasible system, cannabinoid use, if detected, would constitute an ADRV. Since ADOs do not actually catch so many doping cheats this is not unimportant. Moreover, according to the WADA's 2011 figures, there were 445 positive tests for cannabinoid use,[7] including famously the multi-gold-medal-winning figure of Michael Phelps. This datum represents the third highest category of doping (prohibited substance) for which athletes were tested for. Might its exclusion lead to a diminution of the WADA's legitimation? After all, there appears to be some relationship between the credibility of a system which places a burden on athletes and the positive effects of those burdens. If athletes come to believe that so few doping competitors are caught doping, then the whole system will come under pressure. On the other hand, it might be argued that their legitimacy was enhanced by a focus only on illicit performance enhancement. Who wants cannabinoid use on the PL then? One can assume that since most nation-states making sale and trafficking of cannabinoids (though not possession) illegal, then they would have a vested interest in its being made illicit to sportspersons. Hitherto NADOs are all but certain to come under pressure by state parties to symbolically outlaw recreational substance abuse. Therefore, one might suspect a fair-play/cheating narrative from IFs and trade unions, and a public health perspective from NADOs.

On whether cannabinoids should be retained on the Prohibited List: the voices of key actors in anti-doping policy

I turn now to a study in empirical ethics of physical enhancement from the European (EPOCH) project noted above. In that study, only a minority of 12 European NADO heads were strongly in favour of retaining cannabinoids on the PL. One stated:

> I have huge problems with WADA's definition of doping. It isn't a definition as far as I'm concerned. […] If I'm trying to apply it and I'm trying to write my strategy based on what we're trying to achieve, I don't know what we're trying to achieve. I have a real problem, I don't know what we're trying to achieve and I don't know what this … I think that their definition is so broad that it could cover anything and everything and I don't think it's appropriate. I actually have a real problem with the definition.
>
> (Code: NADO5)

They continued:

> And even now in response to that, the EU thing that came through a week, a few weeks ago there about the gyms and that side of it, you know and they referred to doping substances. But what does doping mean? You look up, try and find the definitions and doping is linked to people taking sports people and then you look up the definition of sportsperson. And you know they don't include these guys and doping is a definition that's taken within the context of competitive sport. And so therefore the word doping doesn't mean anything in those contexts. It's not, I mean I think you used a different term for it which I think is right but this EU thing was referring to it as doping and I don't think it is. And strictly speaking if you're using the definitions we have in place at the moment but I think the WADA definition is so broad.
>
> (Code: NADO5)

What we have here are powerful voices in ADP who all privately agree that catching recreational doping athletes is not at the core of anti-doping. Their conclusions chime with the critics from the INHDR. On the face of it, it would appear that the WADA are listening to stakeholders. This view is certainly underwritten by many NADO heads in Europe who formed part of the sample. One NADO head understood the desire of a politicization of ADP but, given the choice, would not burden ADP with it:

> What they've proposed at the moment, and bearing in mind this is first red line draft and it's probably going to look vastly different come November next year, is I think a good compromise and certainly something we suggested which is: give performance enhancement a greater weighting in your determination of whether you're going to consider it on the list or not.
>
> So, basically it has to tick performance enhancing. Now, if you can then wed it to spirit of sport as well, that's fine with me. Because I think one of the things that is often forgot particularly by those not working within government is government's ambition is that, government's objective is that this is contributing to the public health agenda.
>
> (Code: NADO1)

Here it seems the NADO participant has realigned the spirit of sport argument with the health argument. But the relationship is a tenuous one. Governments have both an interest in sports being vehicles for positive social and ethical values and for the health of their populations. Yet the relation between health and sport is at best unclear. While on the one hand there is certainly a symbolic value (people who take physical exercise might appear to be less unhealthy than those who do not), it is unclear whether competitive sports – and especially elite competitive sport, which is the WADA's primary concern – has anything much to do with health at all. Just as there are competing conceptions of health, so there are multiple ways to realize it – and it is not a given that sport is chief among

them. A final complication must be noted. Even if the WADA goes on to ratify the bipartite system, there is a further mechanism by which cannabinoids might be outlawed. As a preface to the PL, for which the bipartite mechanism is used to construct the list, they write the following:

> S0. NON-APPROVED SUBSTANCES
> Any pharmacological substance which is not addressed by any of the subsequent sections of the List and with no current approval by any governmental regulatory health authority for human therapeutic use (e.g. drugs under pre-clinical or clinical development or discontinued, designer drugs, veterinary medicines) is prohibited at all times.[8]

While it might be possible then to remove cannabinoids with this catch all, what seems clear to me, is that it is not the spirit of sport that is the problematic 'catch all' rule. It does seem, however, that no guidance is set out for the employment of this rule. But then there appears to be a lack of transparency about how any mechanism is employed in the construction of the PL. It is most likely that the Olympic Movement, and IFs too, have a considerable interest in associating sports with health. In terms of sponsorship and marketing, being positively associated with health is a(n) (economically) good thing. So each of the parties, with the exception of ATU and a minority of athletes, has reason to align the spirit of sport with health for sporting, public health and economic reasons.

Anti-doping between medicalization, conceptual vagueness and political interference

What would be the conceptual gain of rendering doping under two necessary and now sufficient conditions? Doping is performance enhancement that is (potentially) harmful to health. Well, on the one hand, there will be greater specifiability since the constituents of the list are reduced in number. On the other hand, there is a medicalization of doping, since after the performance-enhancing credentials are satisfied it is seemingly a medical matter whether the methods or substances are harmful or potentially harmful to health. I call this a medicalization in a pejorative way. As Parens observes (Parens 2013) the term originally noted by sociologists is merely descriptive of a process (see Conrad *et al.* 2010). And there seems to be a minor, but contested, view that it is health in individual terms that counts most, not a public health perspective. While this may make it easier for those with a desire to maintain exceptionalism or isolationism in sport policy, it may not be obvious to philosophers of health that this is desirable. Under a biomedical or biostatical theory of health as normal functioning (e.g. Boorse 1977), we might be able to ban the kinds of methods and substances currently thought harmful, such as blood-boosting, endogenous testosterone ingestion, recombinant human growth hormone use, synthetic erythropoietin supplementation, anabolic steroid use, and so on. Here doping policy is a kind of paternalistic protection; health promotion with teeth, so to

speak. But as philosophers of health are keen to remind us, there are more conceptions of health than the biomedical or biostatical account.

In contrast, though, on a social account of health where the securing of one's vital goals is definitive of health (Nordenfelt 1995), the doping athlete might be seen to be using methods and substances that do not harm him.[9] To the contrary, he might be seen to be flourishing.[10] Note that this is not a matter of conceptual vagueness; the competing of conceptions of health might be thought to be equally precise or imprecise. It does not matter for the argument. The key premise is this: all concepts in a natural language may be rendered contestable by the contexts in which they are used. 'Health' is as open to contestation as is 'sport' and the 'spirit of sport'. The perceived precision of the former is likely to be a function of the paradigm (or perhaps biomedical theory-ladenness) of the preconceptions of the sports medical and scientific communities and ADP agencies. Moreover, a significant complication in this shift would be the loss of an ethical discourse in anti-doping policy. The source of ethical unease now shifts from cheating – loosely understood as deceptive unfair play – to imprudence. The doping athlete is to be understood as deceiving others by utilizing imprudent health-risking substances or methods that are licit under the new rule. This is not to my mind a conceptual gain. Moreover, given that much of the discourse surrounding cheating is moralized (perhaps too highly moralized), the intuition that doping is an ethical failure will come to be seen as misplaced. The moral discourse of anti-doping is predicated on the idea that sports are ethical enterprises. And this is rarely seriously accounted for outside sports philosophy. Nevertheless, the idea that doping athletes display deficiencies of character (McNamee 2008) and violate the fair opportunity principle (Loland 2009) may be thought to underpin an ethical vision of sport. And if this criterion is removed, we are left with little ethical substance to criticize doping athletes. Under the bipartite scheme, ADP makers merely act in a strong paternalistic way to prevent athletes from particular harms (while ignoring others that may even be inherent in the activity, e.g. boxing, horse racing, Formula 1 car racing, and so on). It is far from clear to me why this is an ethical or a policy gain. Nor is it obviously a conceptual one. Regarding the spirit of sport criterion, it is worth rehearsing a point made by Wittgenstein that how we use language is crucial to meaning:

> But is a blurred concept a concept at all? – Is an indistinct photograph a picture of a person at all? Is it even always an advantage to replace an indistinct picture by a sharp one? Isn't the indistinct one often exactly what we need?
>
> (Wittgenstein 1953: § 71)

It strikes me that the spirit of sport criterion is exactly what ADP needs. From a purely philosophical point of view, I have shown that the objection against the spirit of sport qua vagueness is largely an impotent one. The world of natural languages is not really split into two categories: the neat and the vague. Granted, some concepts are clearer than others. It is true that the WADA's list is neither a

definition nor an analysis. I noted above that it does not claim that it is. It is simply a list of values widely referred to in relation to an ideal of sports and participation therein. But we handle conceptual vagueness every day without remarking upon it. When does yellow shade into ochre, or orange; or when does pink become cerise? Even colour predicate is conceptually vague, but we do not hear of the abandonment of colour-words. How could we? Likewise, if we want to argue that there are some ways of preparing for and competing in sports that threaten the (contested) ideals that it stands for, we must have some mechanism by which this is done.

A spirit of sport criterion is thus essential to the task of determining which substances and methods are thought of as acceptable or not. This is not a case of line-drawing as Murray suggests (Murray 2007). He is clear on the problem of hard cases, but it is not helpful to see these as arbitrary lines that may or may not be justified. All sports rules are arbitrary, as he notes. But none are, or at least none ought to be, random.[11] There is no good reason why we could not extend a soccer pitch by one metre, nor add to the pressure of a rugby ball by a further 0.5oz per square centimetre, or play hockey for 93.5 minutes, and so on. The rules preserve the challenge in an arbitrary way. If ADP makers advance the case that the symbolic relations between health and the spirit of sport are such that we do not wish to have excessive technological augmentation, they should erect an argument to that effect. If they wish to make licit recreational drug use because it is dangerous to health and inimical to sports, so be it. What is needed then, is not an objection on the grounds of vagueness, or line-drawing, but a proper account of the goods and virtues that sports ideally instantiate and then an account of why some will fall under the heading 'doping' while others will not. Match-fixing and corruption are a larger threat to the spirit of sport; they are clearly not doping.

It is important to register the confluence of two problems here for ADP. It is first a political problem. Critics of current policy from within and without point to the idea of mission creep into public health. The unstated but reasonable inference is that nation-states pay for half of all anti-doping operations by NADOs and the WADA, and they wish to register their opprobrium towards users of cannabinoids. The extent to which this political fiat holds depends on the arguments supplied and contested. The second objection is that the criteria for inclusion on the PL incorporate a criterion, the spirit of sport, which is conceptually vague in such a way that it paves the way for politicization of anti-doping into public health.

Conclusion

I have argued that certain bioethical and social scientific criticisms about the spirit of sport are mostly untenable under a conception of meaning that is very widely shared in the philosophy of language. I have not rejected these claims outright. It is clear that issues concerning the operationalization of that concept remain. The critics' suggestion, along with that of other key voices in ADP, that the criterion is removed from ADP is mistaken if the thought is that the employment of the health/harm criterion is somehow precise, is open to the selfsame criticism of

vagueness, or at least theory-contestedness. Moreover, the move away from a three-part defeasible conception to a bipartite definition of doping merely medicalizes it and undermines the widespread view that doping is an unethical act or practice, corruptive of the integrity of sports. This leaves two questions. Is it unreasonable that states parties who have an interest in the order of civil society, its health, and its values, seek to influence attitudes and behaviour to modes of enhancement? Can the concept of the spirit of sport be made more precise, and can its use by the PL subgroup make more transparent their use of it as a criterion? Both questions will require the kind of ethical expertise that is currently underemployed, and often unemployed, in AD discourses beyond the academy.

Notes

1 First appeared in *Asian Bioethics Review* (2012), 4(4): 374–92, with the title 'The Spirit of Sport and the Medicalisation of Anti-Doping: Empirical and Normative Ethics'.
2 The whereabouts policy is itself hotly contested. Essentially, all athletes in a Registered Testing Pool, which itself is a narrowly defined population of elite athletes, must submit whereabouts information for one hour per day between the hours of 7am and 10pm when they will be available for unannounced testing controls. The intrusive nature of such policy is widely discussed (Møller 2008, 2010) as is the fact that there are no international standards for the inclusion criteria of the registered testing pool (WADA 2009).
3 See McNamee (2012a) Epoch Final Report: Work Package 7 (Physical Enhancement), unpublished technical report.
4 http://ph.au.dk/en/om-instituttet/sektioner/sektion-for-idraet/forskning/forskningsenhedens-sport-og-kropskultur/international-network-of-humanistic-doping-research/ (accessed 18 February 2013). On a point of intellectual honesty, I happily declare that I am a member of this network. I could not add my signature to the call for reasons that will become apparent.
5 http://ph.au.dk/en/om-instituttet/sektioner/sektion-for-idraet/forskning/forskningsenhedens-sport-og-kropskultur/international-network-of-humanistic-doping-research/newsletters/june-2012/call-for-wada/ (accessed 18 February 2013).
6 http://list.wada-ama.org/prohibited-in-competition/prohibited-substances/ (accessed 18 February 2013).
7 See the WADA's own data at: www.wada-ama.org/Documents/Resources/Testing-Figures/WADA-2011-Laboratory-Testing-Figures.pdf (accessed 18 February 2013).
8 http://list.wada-ama.org/prohibited-in-competition/prohibited-substances/ (accessed 18 February 2013).
9 I use the male gender advisedly: doping is predominantly a male phenomenon.
10 The contemporary case of Lance Armstrong comes readily to mind.
11 I am not suggesting that Murray does not agree with this. I am sure he does.

Part V

Genetics and the future of sports medicine

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14 Genetic testing and sports medicine ethics[1]

With the particular exception of doping, the emerging field of sports medicine ethics has attracted relatively little ethical discussion compared with more established branches of medicine. Recently, commercial (HGSA 2007), professional and scientific discussions of genetics have raised the possibility of genetic testing for sports performance prediction (Williams *et al.* 2013; Savulescu and Foddy 2005; Miah and Rich 2006; Munthe 2005a) in addition to preventative and therapeutic purposes (Murray 1994). We note the powerful case that can be made for genetic testing regarding the identification of predisposition to hypertrophic cardiomyopathy (Maron 2005; Corrado and Thiene 2007; Pelliccia *et al.* 2005; Maron 2002, 2003). However, in contrast, we raise key ethical issues that reveal a conflict between common employment practice and professional sport from within the more established fields of medical ethics and legislation. Genetic testing for predictive purposes such as talent identification or performance profiling is potentially in breach of the Council of Europe Bioethics Convention (Council of Europe 1997) and the Genetic Information Non Discrimination Act in the US (US Congress 2008). Given the economic and power asymmetry between professional sports franchises and individual professional athletes, we argue that the voluntary consenting to genetic testing may be undermined and that duress or even coercion may be used to secure the data that can be acquired through genetic testing. Moreover, even if acceptance is secured under voluntary conditions it is necessary to consider the degree of comprehension and thus the 'informedness' of athletes' consent. Finally, if genetic testing is to develop in sports medicine, we highlight the need for acceptable and available systems for genetic counselling before and after testing (Munthe 2005b). We conclude that genetic testing in sport, which is not strictly limited to the protection of athletes against harm, should be viewed in a very sceptical light by sports medicine professionals.

While sports ethics as a research field is in its infancy, sports medicine ethics can only be classified as neonatal. Very few articles exist that attempt to lay down the boundaries of what is a potentially important research field (Johnson 2004; Dunn *et al.* 2007). The conflicts of interests between team doctors in relation to their employing sports franchises and other governing bodies such as the National Basketball Association or the National Football League and their long-term commitment to the health and wellbeing of their athlete patients are relatively

well known (Waddington 2005b) but rarely scrutinized from an ethical point of view. The advent of genetic medicine in general and genetic testing in sports medicine brings new ethical issues to light that merit critical ethical scrutiny. It is not yet clear precisely how genetics will alter our understanding of athletic potential and performance (Rankinen *et al.* 2006; Unal and Ozer Unal 2004). Some of the claims made by sports ethicists and scientists regarding the potential for human enhancement seem to blur the lines between fact and science fiction (Williams *et al.* 2013; Miah 2004). In addition to these problems, a fairly recent article neglects even to mention professional athletics and sports medicine in its review of the ethical, legal and social implications of genetic medicine (Guttmacher *et al.* 2003). Whether or not we accept the enhancement scenarios, some research has established some important genetic precursors to athletic development, especially regarding muscular contraction and growth. However, little comment has been made concerning the preventive application of genetic testing in sports as well as of the ethical implications for sports medicine. This chapter raises a number of interrelated ethical issues that affect sports medicine in relation to professional athletes.

Genetic testing for prevention or (sports) performance?

Recently both popular and scientific discussion has raised the possibility of genetic testing for sports performance prediction. The following is indicative: 'Many of the variables that determine athletic performance are partially inherited (Spurway, 2007) and therefore one can foresee the use of genetic tests to predict performance' (Williams *et al.* 2013). Beyond biomedical science, some bioethicists have also made similar claims as to its potential uses (Savulescu and Foddy 2004; Miah and Rich 2006; Munthe 2005b) while others, ourselves included, are more sceptical (Murray 1994). The potential of sports genetics is often based on the claim that a single gene (ACTN3) is crucially related to sports performance potential (Yang *et al.* 2003). This is based on its expression in type II (fast twitch) muscle fibres, which are of importance to sports where speed is integral. There are even commercially available test kits for the most eager of sports parents or youth sports coaches with talent identification (and its economic and social benefits) in mind. The discovery of ACTN3 apparently 'marks the beginning of a new era' (Williams *et al.* 2013). What is to be made of such a grand claim? The first is that perhaps the attraction of citing such an important genetic contributor is so great that some are prepared to leap precipitously to claim that without ACTN3 there is no quick muscle contraction. However, a recent single case report of a Spanish double-Olympic, world-class long jumper has shown that his achievements were notable because of a deficient ACTN3 gene (Lucia *et al.* 2007). We would be mistaken if we tried to reduce complex traits such as muscle power and speed down to a single gene (Roth 2007). Therefore, a precautionary approach might be wiser until the evidence is supported more widely about the function of ACTN3.

However, a recent analysis of commercial genetic profiling for health risks and interventions suggests:

> Although genomic profiling may have potential to enhance the effectiveness and efficiency of preventive interventions, to date the scientific evidence for most associations between genetic variants and disease risk is insufficient to support useful applications.
>
> (Janssens *et al.* 2008)

Given that genomic medicine and technology are advancing so rapidly, it is worth considering their potential ethical impact in advance of actual medical applications in athletics (Munthe 2005a). Although in several cases healthcare practitioners are powerless to prevent or treat certain conditions after the realization of a (genotype) positive test result, genetic testing for athletes might enable physicians to prevent individuals who are not aware of their health condition from dying a death triggered by sports, as in the case of hypertrophic cardiomyopathy (Maron 2005; Corrado and Thiene 2007; Pelliccia *et al.* 2005; Maron 2003).

Currently, the health-related use of genetic testing in sport (i.e. in preparticipation examinations) is not a standard procedure. It is recommended by some cardiologists in borderline cases (ambiguous ECG/echo, borderline wall thickness). Pigozzi and Rizzo state that if certain diagnosis is not possible but the suspect of disease is high, the most definitive evidence for the presence of hypertrophic cardiomyopathy (HCM) comes from DNA analysis (Pigozzi and Rizzo 2008). If, however, a family member is diagnosed with hypertrophic cardiomyopathy, then, despite lack of symptoms, a genetic screening of the entire family should be considered (Trusty *et al.* 2004). On the other hand, genetic testing is mandatory when definitive diagnosis for genotype-related risk stratification and therapy is required, as can be the case in athletes with long QT syndrome (LQTS) (Pelliccia *et al.* 2005). Regarding LQTS, the Heart Rhythm UK Familial Sudden Death Syndromes Statement Development Group sounds caution by stating that 'genetic testing is not recommended for diagnosis of uncertain or "borderline" congenital LQTS outside the setting of expert clinical and detailed family assessment' (Garratt 2008). Not all diseases are monocausal, which obviously reduces the predictive quality of such tests, not to mention the high costs as a consequence of testing a whole range of genes that are suspected to be linked to a certain disease. These obstacles (among others) lead to the conclusion that genetic tests are probably not becoming a standard in preparticipation screenings, at least not in the near future.

Genetic testing in sports and the legal regulation of genetic testing in employment

Suppose that athletic predestination is reliably predictable by new genetic sports medicine at some point in the near future. What will follow from this? What is scientifically possible and what is ethically permissible do not always go hand in hand. One very significant barrier to this use of genetics already exists in Europe in the form of the Council of Europe Bioethics Convention where Article 12 regarding predictive genetic tests states:

> Tests which are predictive of genetic diseases or which serve either to identify the subject as a carrier of a gene responsible for a disease or to detect a genetic predisposition or susceptibility to a disease may be performed only for health purposes or for scientific research linked to health purposes, and subject to appropriate genetic counselling.
>
> (Council of Europe 1997)

Here, the idea of someone undergoing genetic testing in order to establish some kind of performance profile would itself go against the strict therapeutic or preventative rationale of the Council of Europe Convention. Also, in the US the Genetic Information Non-Discrimination Act of 2008 Section 202a explicitly prohibits the use of genetic information in employment decisions (US Congress 2008). There are further obstacles to genetic testing for sports performance arising from this Convention that raise ethical issues to be addressed beyond European confines, which we address below. For the moment, it is important to note one important difference between genetic testing in public health and in professional sports. However, as noted above, where healthcare practitioners are incapable of therapeutic interventions, the testing is still not futile given the possibility of identifying susceptibility to HCM (Maron 2005; Corrado and Thiene 2007; Pelliccia *et al.* 2005; Maron 2003). Equally, this may cause problems since genetic data revealed about a given athlete may be disclosed to public bodies such as the World Anti-Doping Agency and in so doing the privacy of data of relatives will be denied (Munthe 2005a, 2005b). Nevertheless, just because it may be impossible to cure a patient of a given condition, it does not follow that genetic testing is redundant. However 'DNA-based diagnostic tests that can definitively distinguish genetic heart diseases from athlete's heart' (Maron 2003) could genuinely save lives. Moreover, genetic testing for APOE4 in addition to traditional screening has been used voluntarily in Australia with boxers who are vulnerable to early onset of Alzheimer's disease if they have the gene (Jordan *et al.* 1997; McCrory 2007).

Our point is not against genetic testing in sports per se, but merely against the questionable validity of genetic prediction of sports performance and the expansion of its role beyond traditional preventative and therapeutic aims. While it is clear that the boundary between the traditional curative goals of medicine and the more novel enhancement aims of sports medicine is not absolute, the distinction still remains a useful one.

Problems of confidentiality and consent in professional sports medicine

In highly paid professional sports, what are the possible scenarios in offering a test for a sports-related risk factor? Can the asymmetry of power between franchise and player be made worse by genetic knowledge? If consent procedures are properly followed, the ability to volunteer might still be in question: how does the sports physician present the case for and against, under what circumstances and

with what preconditions? Even if this process was followed in an ethically acceptable manner, what steps should follow from different test results? Testing itself does not guarantee objective and unequivocal prognoses: nor does the genetic counselling, which would need to follow (Munthe 2005b; Shickle and Chadwick 1994). Human interpretation and valuation of risk factors are still necessary. How are the test results presented, by whom and under what conditions? What does a certain risk mean in one context, compared with another? All these issues will require serious public professional debate if genetic testing is to gain a foothold in sports medicine. Moreover, while respect for patient autonomy is often regarded as the crucible of medical ethics (Gillon 2003), concerns arise from the very nature of genetic data presented under the heading 'genetic exceptionalism' (Murray 1997). For example, Yesley disputes the claims to the uniqueness of genetic data as opposed to other forms of traditional screening and testing (Yesley 1997). Given, however, the complexity of issues surrounding genetic data, what confidence is justified regarding professional athletes' capacity to grasp fully the decision to be genetically tested? A further problem arises regarding confidentiality: with whom will the genetic data be shared? Will existing pressures on team doctors to divulge athlete/patient information (Johnson 2004) be exacerbated? Often the physiotherapist or team doctor find themselves caught in a conflict of interest. They serve both the athlete/patient and the franchise/client who pay their wages. The data they have regarding the health and performance status are highly sensitive but in great demand from the employing franchise, the coach and potential commercial suitors.

Genetic testing in employment for anything other than health risk related to the specific job is generally frowned upon. Why should professional sports differ? Article 12 of the European Convention prohibits the use of predictive tests for non-health-related reasons, even with the assent of the patient. Predictive genetic testing as part of pre-employment medical examinations is forbidden whenever it does not serve the health-related interests of the individual. This means that in particular circumstances, when the working environment could have prejudicial consequences on the health of an individual because of a genetic predisposition, predictive genetic testing may be offered without prejudice with the aim of improving working conditions. Which genetic anomalies are deleterious to given athletes in specific sports? Should sports employers be allowed to hire and fire based on unexpressed genetic abnormalities? How should the athlete's right not to know other deleterious conditions be respected? There is a justifiable requirement to carry out performance tests to judge, for example, the effort of the athlete, or their adherence and commitment to a specified training regimen in order to decide whether to offer or extend a professional contract. This does not, however, justify a 'fishing expedition' of potentially wide-ranging personal genetic data.

Conclusions

We have attempted to raise critical questions regarding the potential of genetic testing in sports medicine without rejecting it tout court. We recognize that if

genetic testing is carried out for enhancement purposes it may have the unintended, but desirable, consequence of highlighting potentially harmful diseases or conditions that may be exacerbated by high-level athletic activity. Nevertheless, we have cast doubt on the possibility of sports performance prediction, and have also raised key ethical issues where there is a clash between common employment practice and sport and mainstream medical ethics and law. Given the economic asymmetry between the commercial sports franchise and the individual professional athlete, we have shown that genetic testing in sport that is not strictly limited to the protection of the athlete against harm should be viewed in a very sceptical light by sports medicine professionals.

Note

1 First appeared in *Sports Medicine* (2009), 39(5): 339–44, with the title 'Genetic testing and sports medicine ethics', co-authored with Michael John, Arno Müller, Ivo van Hilvoorde and Søren Holm.

15 What's wrong with genetic enhancement in sport?[1]

Much ink has been spilt in recent years over the genetic enhancement of athletes. Distinguishing fact from fantasy is no easy matter in this issue partly because of the peculiarities of populist scientific writings, which extrapolate from current research to future possibilities in ways that make certain credible scientists blush. But it is also partly due to the phenomenon called 'gene-talk' (Sheridan *et al.* 2006): the fact that the more journalists and scholars talk about such possibilities with authority and excitement the more the ideas themselves come to take on a life of their own: a life, that is imbued with real consequences in terms of media coverage, policy development and self-promotion. Having little truck with technological utopias as they are peddled by these writers, or their mode of academic interaction, I want to argue against the futuristic possibilities of genetic enhancement in sports and to show how many of the arguments which are either constructed or gestured towards, do not stand up to criticism.

On the idea of enhancement and related concepts

While Miah (2004) is careful to distinguish the two concepts in his seminal book, *Genetically Modified Athletes*, others tend to conflate the concepts 'modification' and 'enhancement'. It is critical, however, that they are kept distinct both for logical and practical reasons. Notwithstanding this, many advocates for the increasing application of what are called human enhancing technologies wish to bring these two ideas together. Why would anyone confuse the two? Well, it is not merely for reasons of linguistic laziness. At least one important conceptual source can be found for the elision of the two. Most modern bioethics has adopted a critical stance on the pervasiveness of medical paternalism. Whether in the language of patients' rights, or simply doctors' duties to respect the autonomy of the patient, the balance of power has shifted noticeably from the profession to those whom they serve. Many have argued that it has gone too far and that the increasing valorization of autonomy as the chief ethical value in medicine (and beyond) has supported a supposition that any modification sought by an individual is thereby to be considered an enhancement by their own admission. Under such a view any autonomously chosen modification counts as an enhancement.

One fairly extreme consequence of this subjectivization is elective, non-therapeutic, amputation (see Elliott 2003). Some agents (patients?) elect to have limbs removed, which they argue are offensive to their identity or which play no part in their self-conceived bodily integrity. And they typically claim, post surgery, that their wellbeing has been enhanced thereby.[2] Are we to understand the medical intervention they receive as therapy or enhancement? Indeed ought we to describe the intervention as medical in the first place? Given the lack of typical clinical indications or needs, it seems hard to classify it as treatment. Given that 'patients' (if such they are) report higher levels of wellbeing after surgery should we then classify it as enhancement? Yet even if we accede to the latter, it must be noted that we classify their intervention as 'enhancement' merely on the grounds of self-reporting. How, one might ask, might we then distinguish medical treatment from, say, cosmetic surgery? A consequence of this view would be that one is enhanced so long as one says one is. Clearly this renders the concept of enhancement empty. As a point of philosophical necessity[3] it cannot simply be the case that, like Humpty Dumpty in Lewis Carroll's *Alice in Wonderland,* we can pronounce that words mean merely what *we* want them to when we use them. Language is necessarily social, meanings cannot be simply in the minds of those who utter them without recourse to social meanings and rules (even if these are at times disputed). Thus, when disputing matters of enhancement, criteria beyond mere individual choice must be borne in mind. For our present purposes, we might benefit from considering the broader goals of sport and society (Parens 1998), the narrower goals of biomedicine (Juengst 1998), as well as the ethics of self-improvement (Juengst 1998) including the dignity of human activity (President's Council on Bioethics [US] 2003). By way of warning, Juengst (1998) writes that '[f]or policy makers faced with the prospect of using of enhancement as a regulatory concept it will be important to have a clear map of these uses and interpretations' (1998: 29). It is clear that there is shared terrain here; instances where one point cuts across these domains of significance but it is also clear that the distinctions can direct us to where certain arguments best gain their purchase.

The therapy/enhancement distinction

One line of argument frequently suggested is that the therapy/enhancement distinction is blurred and, therefore, of no use in distinguishing permissible/desirable from impermissible/undesirable technological modifications (see, in relation to sports, Miah 2004: 95). The argument that this posture is based upon is simply not sound and open to decisive philosophical objection. Within sports medicine one can see cases where, for example, a posterior cruciate ligament (PCL) is replaced by a graft from a tendon in the athlete's own 'hamstrings' (biceps femoris) which will have greater tensile strength than the original PCL. Møller (2008: 106) notes how the French cycling physician Dr Bruno de Lignières has suggested that intense exertion over extended time can lead to testosterone depletion – the restoration of which will allow performance at pre-reduction levels which might be seen as an enhancement in the absence of such newly injected testosterone.

In the philosophy of medicine, the most common example given to undermine the absoluteness of the distinction is that of immunization. Proponents of the medical enhancement lobby argue that in immunization we have a case of widely accepted medical intervention which is not therapeutic in nature, where the attempt to restore normal functioning does not describe the nature of the act. Rather, in immunization, the functioning of the immune system is boosted beyond normal functioning. The term 'normal functioning' has an extremely important role and history in the philosophy of medicine particularly with respect to its nature and purposes. The idea that medicine is a therapeutic activity is tied to Christopher Boorse's thesis that medicine aims to restore or repair deviations from normal functioning. It is important to note that the idea of normal functioning must itself be understood as denoting a range of values rather than one specific point on a scale. On such an account a body is diseased, ill or under some deleterious condition when it is functioning abnormally in relation to the class of species to which it belongs. How then does one argue against immunization: does it not open the door to those who want enhancement to be understood as a medical function that can, for our purposes, be transposed into the worlds of elite sports and thus legitimated? After all, many anti-doping lobbies have argued that the wrongness of doping lies in the subsequent harm to the athletes but if medical enhancement can be structured by the norms of the medical profession then perhaps the blurring of the distinction can assist in the opening up of a more liberal stance.

The first response to be made here is a conceptual one. An assumption made by the enhancers seems to be the following: conceptual distinctions must be clear and exceptionless in order for them to be either useful or clear. This assumption does not hold water. And I will develop the point regarding conceptual vagueness below but for present purposes I want to point to another conceptual feature of the immunization example. It strikes me that when one boosts one's immune system the final end or purpose aimed at is not that of enhancement – though this is the method undeniably – rather it is one of prevention. One boosts one's immune system so as to prevent illness or infection. And few would deny that this is a proper goal of medicine.[4] So despite the fact that an exception can be lodged on these grounds it does not follow that any and all other modifications which do not share the preventative goal are legitimized nor are they necessarily to be seen as enhancements. This, of course, does not imply that all applications of the term enhancement are meaningless, simply that we have to have more than subjective reports to bolster them. Juengst identifies three examples, pertinent to our present concerns, where applying the label 'enhancement' is unproblematic. He writes:

> Interventions which take place to the top of their personal potential (like athletic training) or beyond their own birth range (like growth hormone), or to the top of the range of the reference class, or to the top of the species-typical range, or beyond (!), are all to be counted as enhancements and fall successively further beyond the domain or responsibility of medicine or health care.
>
> (Juengst 1997: 129–30)

The first point regarding the enhancement of potential is one that has been raised before in anti-doping debates. But it is the last point of the quotation that is noteworthy here. Much of the discussion which attempts to support a more liberal approach to human enhancement technologies (both as in older attempts to liberalize steroids as much as new advocacy for genetic technologies) attempts to use the contested terrain between the two concepts to open the way to a more accepting approach of the new possibilities offered by technology whether in medicine (Resnik 2000) or sport (e.g. Miah 2004, 2005b; Tamburrini 2000, 2006). The central thrust of the challenge to that distinction concerns the identification of healthcare needs as distinct from other health-related desires in the face of health insurance schemes's obligation in the relation to the former but not the latter (see Buchanan *et al.* 2000). Or, as Juengst (1998) puts it, the distinction can be used to define the limits of a physician's obligations. At the risk of labouring the point, acceptance of this does not entail the denial of the utility of the distinction in relation to, for example, genetic enhancement of elite athletes.

What follows if the athlete is not a patient?

One recent and interesting development of this point presents itself in the idea that the athlete is not to be viewed under the aspect of 'patient'. Well, of course, sometimes it is the case that athletes fall under this description when they are ill, diseased or injured and in the process of receiving, say, physiotherapy or interferential treatment. Yet if, in certain circumstances, it is accepted that the athlete need not be viewed as a patient, this leads some to conclude that the athlete should not be 'beholden to the same kinds of ethical distinction that exist within healthcare and medicine' (Miah 2004: 96). This seems an important point which follows from the therapy/enhancement discussion. But should we accept this point and even if we do what follows from it? There are three points to be made in response to the idea that the athlete should not be viewed under the description 'patient'.

Firstly, note that it is assumed that the distinction between therapy and enhancement, because it arises in healthcare and medicine, cannot meaningfully be applied beyond those spheres. No account is given why this should be the case. Secondly, no argument is given as to what would take the place of the distinction in helping us demarcate acceptable from unacceptable methods of enhancement or the various goals that would fall under this description. Thirdly, the use of prosthetics in elite disability sport provides a challenging case for our presuppositions regarding the proper use of technology in Paralympic sport and by extension Olympic sport. While there was considerable disquiet in parts of the athletic community in the early 1990s when Carl Lewis had his shoe manufacturer ergonomically design his own specific sprinting shoe, there seems to be ready acceptance of individually designed prostheses in elite disability sport. One clear exception to this point emerges from the discussion of Oscar Pistorius, the South African 400 metre Paralympic athlete who having conquered his competitive field sought, unsuccessfully, to compete in the able-bodied 400

metres at the Beijing Olympics (see Edwards 2008; van Hilvoorde and Landeweerd 2008; McNamee 2008).

In consideration of these points, it strikes me that three further questions can be asked regarding the nature of excellent performance that may help in the further consideration of the nature of athletic excellence viz. sports medicine, the use of medical technology and the relations between physicians and athletes:

1 How desirable is the fact that excellent performance may be *dependent* upon the technology?
2 What further inequities are introduced by the new technologies at hand which will further exacerbate access to extremely unevenly distributed performance support and systems?
3 Why should elite disability athletes not be seen under the double aspect of a patient *and* elite sportsperson?

It is far from obvious then why the distinction between therapy and enhancement cannot be useful in both Olympic and Paralympic arenas. Indeed, the 'therapeutic use exemption' (TUE) by the WADA is an attempt to recognize that athletes have basic healthcare needs which are to be understood as a kind of right which has greater moral gravity than the regulation of performance enhancement. Moreover, the presence of TUE recognizes less basic, instrumental needs that attach to athletes in virtue of their chosen sporting ends. Where an athlete has a healthcare need that cannot otherwise be attended to by methods which do not have a secondary, performance-enhancing effect they may use therapies that coincidentally enhance performance. Of course, the granting of TUE certificates is supposed to be suitably regulated. Nevertheless, one would not be alone in asking why quite so many elite endurance athletes suffer from asthma and are therefore in receipt of medication that also has performance-enhancing properties. Here one might say, treating the athlete as patient reaps its own particular reward; and one that for anti-doping policy makers is something less than desirable. More generally, however, what anti-doping policy makers must be vigilant towards – in addition to doping technology – is more generally the *excessive* technologization of performance in all sports while recognizing the seemingly necessary role that technology plays in some elite sports and disability sports.

Perhaps the greatest challenge with respect to human enhancement technology is present in recent discussions of transhumanism and the integration of technology and biology to transform and transcend human nature (McNamee and Edwards 2006). While some of the radical technologies are genetically based, not all are. A few individuals are already experimenting with direct forms of human–computer interface. This is a serious challenge to the idea of humanness and species integrity. What ramifications this new Prometheanism may have in the less government-regulated sphere of elite sports, where boundary-testing may be the norm, is a worrying thought (McNamee 2007). What is clear to me, however, is that to the extent to which people wish genetically to engineer their bodies, they must have a clear idea of the goal they pursue or the ideal they seek to achieve.

What kinds of genetic athlete are being contemplated, and to what kinds of athletic excellence will these new genetically engineered specimens aspire, are questions that ought to be disputed in public in the relevant sports-practice communities. Whether this is naïveté in the face of the untrammelled pursuit of competitive advantage in the brave new world of hyper-commercialized sports remains to be seen. Of course, discussions such as these cannot trade long on generalities. By contrast, they must proceed to the more precise terrain of why this or that enhancement should be considered a good or bad thing in relation to this or that sport or sportsperson. But, for the purposes of this discussion I shall keep my remarks at a very general level.

The purposes of sport in social context

On the one hand it is easy to be sanctimonious about the values of and in sports. On the other hand it is easy to be soporific. It should be clear that when we refer to elite sports we are not talking about the same social practice as Sunday morning football or midweek netball (or Friday night darts or pool for that matter). The norms that govern sports are heterogeneous and so talk of the 'spirit of sport' can be highly problematic. It seems to assume an essentialism that is unwarranted. What does seem noteworthy, and against those who would advance some historically naïve or purist ideals, is that elite sports are Janus-faced: they are simultaneously both play and display (McNamee 1995). The internal satisfactions (often referred to as internal goods after MacIntyre 1984) and external goods or rewards are present from the very beginnings of elite sport. The achievement of considerable esteem, glory, honour and of course wealth, has always attended elite sport. Of course, it has not always been the case that the sheer magnitude of their presence has been, as Walsh and Giulianotti so felicitously put it, 'pathological' (Walsh and Giulianotti 2006). It is true nevertheless that even these goods are undermined when we consider that (as yet unspecified) unacceptable means may have been used to secure them. And it is undeniably true that many of us watch and admire elite sportspersons, canonically in the case of the Olympic games, for the excellence that the athletes embody or personify: not merely what they do but what they stand for or signify. Here is the danger of being soporific. And I am mindful of my own ethically dense picture of sports. I do not deny that others might admire the technical excellence, say, of a Maradona, while being unconcerned as to his more general disposition. It is my position that this picture is an etiolated conception of sports but I cannot argue for that here (see instead McNamee 2008). It is nevertheless my contention that athletic excellence, when derived from participation and training which is respectful of the rules, embodies such values as commitment, channelled concentration, controlled aggression and power, courage in the face of suffering, dedication, strategic intensity, tenacity, to name but a few of the virtues of sports.[5] It has been argued (Tannsjo 2010), wrongly to my mind, that this admiration is fascistoid: that it necessarily entails our contempt for the herd. If this point were true, it would certainly be heightened by the new Promethean athletes in the would-be genetically modified era.

While this view has attracted much criticism (see for example Persson 2005) it points to an issue that is worthy of consideration. What is the basis of our admiration for Olympic athletes in the broadest sense, and how is genetic technology (indeed other technologies too) implicated in that stance? There are, of course, many answers to this question and I propose to offer only two that are salient to the present discussion. Firstly, no one can doubt that Olympic athletes strive for excellence. They seek, in testing nerve and sinew, to perform to the limits of their potential and even to define the standards of excellence that others must achieve if they wish to achieve the glory, honour, fame (and in more limited cases than one may imagine) and significant wealth that attends to the achievement of excellence. The account of excellence has, however, to be one of both means and ends. Sports are partly defined by rules and rule-governed conduct which prescribes and proscribes both what is to count as success and how it may and may not be achieved. It follows from this that the means matter, logically and morally speaking. While technical means are sought for the most efficient securing of the ends of success, the very idea of 'the most efficient means to the ends of sport' is ruled out by their very nature (Suits 1978). The most certain way of scoring a knockout might appear to be to bring a machete into the boxing ring; the most secure way of scoring a goal may lead one to conceive of an apparently invincible tactic of carrying it over the goal line in an armoured vehicle. Of course, these are proscribed by the rules (but not explicitly to the best of my knowledge), though perhaps more importantly they simply would not count as a 'knockout' or 'goal' in the eyes of the relevant sporting communities, nor beyond.

Secondly, despite academic rejection of functionalist explanations of both religion and sport, it is undeniable that, in the West at least, sports are modern morality plays (McNamee 2008). In the absence of their ability to follow the Roman Catholic Mass said or sung in Latin, the illiterate masses were taught Christianity in medieval Europe by these travelling theatres with their simplistic representations of God, good and evil, salvation and suffering. What was usually at stake in these moralistic plays was the soul of everyman which was everywhere and always vulnerable to the wily ways of the devil. Crude as these plays were they represented widespread moral educational (perhaps better: indoctrinatory) vehicles. With the decline of organized religion as the dominant purveyor of moral norms in society, sport is the most far-reaching social practice through which standards of conduct and character are displayed, disputed, negotiated, supported, tested and, of course, undermined. Thus, even where flagrant cheating exists, or where gross egoism and greed are displayed, it cannot be denied that the practices of sport at least sustain these protean moral dialogues and at best give us pictures or role models of what we and others may aim at. It is undeniable that the spaces of sport serve moral and social goals beyond themselves.

In order to find support for a more sympathetic account of sport viz. human enhancement technologies Miah (2004: 93) cites Juengst (1998: 40) to the effect that there is an ethical equivalence between the following options: creating new forms of athletic contexts or proscribing the use of technological enhancements. But this is not *exactly* what Juengst (1998) argues for. It is both necessary and desirable

to quote at length here for both precision and fairness of treatment. In his discussion of 'enhancements as corrosive shortcuts' (1998: 39–41), Juengst argues that some:

> biomedical enhancements unlike achievements, are a form of cheating. This view assumes that taking the biomedical shortcut somehow cheats or undercuts the specific social practices that would make analogous human achievement valuable in the first place. […] If we are to preserve the value of the social practices we count as "enhancing," it may be in society's interest to impose a means-limit on biomedical enhancement efforts.

Juengst is properly careful here not to write off technological enhancement wholesale. Rather his concern is with social practices (such as education or sport) where the idea of achievement may be undermined or redefined by genetic and other technologies. With respect to attention-enhancing medication/technological products such as Ritalin, we can ask whether the enhanced performances it may bring draw in their wake contempt rather than admiration; whether the achieved grade properly reflects the committed and disciplined study that the test is designed to establish. Juengst concludes that '[i]f the grade is not serving that function then, for that student, it is a hollow accomplishment, without the intrinsic value it would otherwise have' (1998: 41).

One of the pre-eminent functions of sports institutions (such as the International Amateur Athletics Federations, the International Olympic Committee, the World Anti-Doping Agency, or indeed the national governing bodies such as the Football Association in the UK) is the preservation of the intimate relation between sporting achievement and the admirable qualities that sports are supposed to foster and reward. The idea of a corrosive shortcut enabled by morally problematic means may apply in many cases. But it does not exhaust a concern with the permissive application of genetic and other technologies. For athletes, even in the bad old days of steroid abuse, often took these drugs to train more intensely and recover more quickly from training and performance in order to excel. Thus when Juengst (1998: 40) writes that '[e]ither the institutions must redesign the game (e.g. education or sports) to find new ways to evaluate excellence that are not afforded by available enhancements, or they must prohibit the use of enhancing shortcuts', we must be clear that an entirely new catalogue of virtue and vice will have to be developed or a complete re-visioning of sports themselves in line with proposed technology. If such technology is accepted in the new definition of achievement then we will be left wondering whether it is really value neutral (as many have claimed) or rather pre-coded to transmit the values of those who have vested interests in promulgating technological conceptions of (the good) life itself. Whether what is left is recognizably human is itself a moot point.

Regulation and the myth of Sisyphus

It might seem reasonable to think that the guardians of sport are involved in a struggle akin to the punishment the gods meted out to Sisyphus. Of course, one

would have to bear in mind that Sisyphus was something of a terrorist: a hostage taker. Sisyphus is held to account for his crimes and is condemned to roll a great rock up a hill only for it to fall down the other side as soon as he manages to push it to the top. So he must begin his task all over again. His strength-sapping suffering thus is endless. And so it seems is the case for those who would be vigilant against the technological diminution of sports as human achievements. No sooner have they detected one corruption or usurpation than another occurs. This tragic context does not render the attempts of those who wish to preserve what is best in sport futile. Rather it enables a clear-sighted vision of what is worth holding on to by careful argument and negotiation. By way of conclusion, and following loosely from the foregoing discussion, I offer below some questions as indicative of criteria by which we might begin to evaluate the would-be human enhancing technologies in their application to elite sports: (a) To what extent do genetic technologies enhance or diminish our admiration for human athletic achievement?; (b) What harms do the genetic enhancement technologies introduce or exacerbate?; (c) To what extent will unfairness of access characterize the use of genetic technologies?; (d) Are genetic enhancements autonomously adopted by athletes or is their use coercive or paternalistic?; (e) If public monies are used to support and maintain genetically enhanced athletic performance will this represent a waste of scarce public resources?; (f) In line with whose ideals and interests are athletes being genetically 'enhanced'?; (g) Will species integrity be undermined by the proposed technological 'enhancements'? These questions are tentatively suggested as dimensions that may encourage consideration of the desirability or permissibility of genetic enhancement technologies in elite sport. Clearly what is needed is a more nuanced, sport-by-sport analysis of the issues alongside critical reflections of policy makers, sports institutions and representatives of performers, tested out in arenas of public opinion supported, wherever possible, by clear arguments in the public domain.

Notes

1 First appeared under title 'What's wrong with genetic enhancement in sport?' in V. Moller, M. J. McNamee, and P. Dimeo (eds) (2009), *Elite Sports, Doping and Public Health*. Odense: University Press of Southern Denmark, pp. 145–54.

2 One might imagine the sceptic responding: "Well, they would say that wouldn't they??!"

3 The *locus classicus* of this view is the work of the later Wittgenstein (1953) in his demolition of what is dubbed the 'private language argument'.

4 One who actually has done that is Ivan Illich (1982) who in his classic work *Medical Nemesis – The Expropriation of Health* argues that despite the invention of immunization techniques '[t]he study of the evolution of the disease patterns provides evidence that during the last century doctors have affected epidemics no more profoundly than did priests during earlier times' (Illich 1982: 15).

5 See McNamee 2008 for a critical elaboration of virtues and vices from within a virtue theoretical framework.

16 Gene transfer for pain

A tool to cope with the intractable, or an unethical endurance-enhancing technology?[1]

Introduction

In this chapter we consider two plausible scenarios in which an individual is seeking treatment with gene transfer tools to cope better with pain. In the first scenario the individual is a patient; in the second an athlete. The general question explored is whether it is ethically justifiable for the individual to seek an experimental gene transfer treatment in order to raise his/her tolerance to pain. We employ here a comparative strategy to highlight the similarities and dissimilarities between the ethical frameworks used to evaluate the two scenarios, and to reach conclusions regarding the justifiability of the potential practice.

Gene transfer for pain

Untreatable pain represents an enormous problem to society. By current statistics, an estimated 20 per cent of the adult population suffers from chronic pain, and the financial cost to society is estimated at more than €200 billion per annum in Europe, and $150 billion per annum in the USA (Tracey and Bushnell 2009). Treatment options are limited, with many patients either not responding to them or having incomplete pain reduction (Breivik *et al.* 2006).

In the last decade, several translational clinical trials have been carried out that employed gene transfer tools to try to overcome this medical need. Gene transfer trials certainly qualify as translational trials, as they are designed to bring to the bedside the tools developed at the bench of a molecular biology laboratory. We performed a search with keywords ‘gene transfer’ and ‘pain’ on the National Health Institute’s clinical trials directory, which revealed 20 clinical trials that are either completed or in recruitment (clinicaltrials.gov 2013a). To date nine clinical trials have been completed (clinicaltrials.gov 2013a). Some of these trials are aimed at treating intractable cancer pain, some at treating pain associated with angina pectoris, others at epidermolysis bullosa (a heritable condition where connective tissue disease causes painful blisters in the skin and mucosal membranes), and others to treat the pain associated with peripheral arterial occlusion (a mini-stroke in the leg which causes the necrosis of muscular tissue leading to impaired functionality and chronic pain). This last

kind of pain, and the related clinical trial, serves as a case study for our comparative evaluation between a medical context and a sports context, where the former is a traditionally conceived therapeutic intervention, and the latter is one where the intervention rests in the grey zone between therapy and enhancement – or as it has been labelled, therapeutic enhancement (Tannsjo 2010). We set out the two scenarios below and evaluate them ethically according to two different frameworks.

Scenario A

The medical context (the patient)

In scenario A in the US TV series *House MD* the protagonist, Dr Gregory House, has suffered from peripheral ischemia to a leg, which has left him limping and with intractable chronic pain, due to the extensive necrotic muscular tissue in his thigh muscles. He is seeking an alternative solution in a gene transfer clinical trial. Dr House can perhaps be seen as a contemporary instance of the archetypical mythological figure of the 'wounded healer' Chiron, who is able to heal others but unable to heal himself. After having tried many standard and less standard treatments unsuccessfully, our protagonist is now seeking experimental treatments, i.e. treatments that are currently being tested in clinical trials and not yet approved by national regulatory bodies such as the US Food and Drug Administration (FDA) or the European Medicines Agency (EMA), and are unavailable on the market. Among the gene transfer trials currently active or recruiting, one study stands out as the perfect match for a patient like Gregory House.

The trial (Identifier # NCT00304837) is a Phase 1 study that seeks to transfer the DNA codifying for Vascular Endothelial Growth Factor (VEGF) in the legs of patients with peripheral artery disease (PAD) (clinicaltrials.gov 2013b). PAD encompasses a range of conditions presenting with blockages in the arteries in the limbs. The nature of the disease is progressive, so that it frequently leads to patients presenting with claudication or critical limb ischemia (CLI) (Mughal *et al.* 2012). It is this former manifestation of PAD that we are interested to discuss. Most Phase 1 studies are aimed at testing the safety of a new pharmaceutical or treatment in a restricted number of patients, after the treatment has proved efficacious in laboratory testing and animal models, but some – like this one – may also test the efficacy of the agent under study.

According to the trial protocol, the DNA codifying for the VEGF protein is injected into the affected legs of the trial subjects on three separate occasions, each two weeks apart. The DNA codifier then directs the cells of the artery wall to increase production of VEGF, which has been shown to cause new blood vessels to grow around the blockages in the leg arteries (Mughal *et al.* 2012). It has also been demonstrated that increased VEGF expression through gene transfer techniques improves microcirculation in muscle, and hence increased oxygen and nutrient supply, as well as removal of waste products (Giacca and Zacchigna 2012). Kim *et al.* have observed evidence of growth of new collateral vessels,

relief of ischemic pain and ulcer healing in patients with CLI (Kim *et al.* 2004). The trial we are analysing aims not only at testing the safety of VEGF gene transfer, but also at improving rest pain and/or heals the ulcers caused by PAD (clinicaltrials.gov 2013b).

Generally speaking, safety concerns about gene transfer are related both to the kind of carrier/vector being used (usually a modified virus) and to the encoded transgene. In our case study, the former are eliminated by injecting the DNA coding for the VEGF protein directly into the patients' leg muscles, without any viral or non-viral carrier, thus eliminating the risks inherent in the vectors and common to many other gene transfer trials. As to the latter risks, it has been shown that overexpression of VEGF causes haemangiomas (benign tumours characterized by an increased number of normal or abnormal vessels filled with blood) in skeletal muscle in mouse animal models (Springer *et al.* 1998). In addition, angiogenesis, can have detrimental consequences in non-target tissues. In particular, the theoretical risk of facilitation of tumour vascularization (and therefore, increased growth) or plaque angiogenesis in non-target tissues must not be ignored (Baumgartner 2000). Transient peripheral edema (swelling) due to increased local perfusion is a relatively common and mild side-effect.

More serious adverse effects have been rarely observed and are mostly related to the use of viral vectors, therefore are not pertinent to the trial we are discussing which injects DNA in the form of a plasmid (a circular molecule of DNA) (Muona *et al.* 2012). A recent study conducted by Muona *et al.* and aimed at assessing the long-term side-effects (10+ years) of local VEGF gene transfer to ischemic lower limbs found that adenovirus or plasmid (our case) or liposome mediated intravascular local gene transfer does not increase the risk of malignancies, diabetes or any other disease in the long term. The authors also identified as a key element to safe gene transfer the local delivery to the treatment side (as in our case), which reduced the risk of systematic spread of the vector, as well of adverse side-effects to other organs. This suggests that the technique described here could be safely applied both in trial subjects and in healthy individuals (which is pertinent to Scenario B below).

As noted by Mughal *et al*., PAD cannot be attributed to one specific genetic cause, and greater therapeutic efficacy could be obtained by targeted gene transfer using multiple growth factors (Mughal *et al*. 2012). Indeed, angiogenic gene transfer strategies such as VEGF gene transfer are by no means the only ones being explored in the treatment of chronic pain (Goins *et al.* 2012) but appear to be among the most advanced at the clinical level, while other strategies are still at the level of animal studies. As a general remark, while we are aware that a certain degree of speculation is necessary when applying our case study to the second scenario (the elite sports context), we think there is sufficient scientific and medical evidence to argue that gene transfer for pain has very plausible applications for enhancing athletic performances.

Scenario B

The sports context (the elite athlete)

In scenario B the would-be protagonist is an elite athlete competing in an endurance event, such as cross-country skiing, marathon running, tour cycling, triathlon, or an event of similar extended duration, seeking VEGF gene transfer in order to cope better with the pain inherent in the event as a primary outcome, and as a secondary outcome to perform better as a result. The growth of blood vessels in the limbs, as demonstrated by the clinical trial described above, is likely to aid the athlete in his/her performance by increasing the oxygen-carrying capacity to the limbs (nutrient supply) and the removal of waste products. It is also obvious that an athlete feeling less pain could perform better, ceteribus paribus, than other athletes experiencing a greater degree of pain.

Comparing the scenarios

How are we to understand the similarities and differences these contexts present, and to what extent will the context determine whether it is ethically justifiable for an individual to seek an experimental gene transfer treatment better to cope with pain? To what extent is the ethical permissibility of the practice dependent upon or independent of the context of gene transfer? We respond to these questions by spelling out two ethical frameworks that might be adopted in order to analyse the two scenarios.

Scenario A: ethics of translational research

With a few relevant exclusions,[2] we do not normally regard pain as an essential or valuable part of our lives. On the contrary, we take measures to diminish or even eliminate pain from our daily lives, and from the lives of those who are dear to us. Even in illnesses where pain is present, we try to eliminate it, although it may not be possible to cure the patient of the underlying cause. Palliative care, which we consider an essential part of treating a sick human being with dignity, is predicated on such an understanding.

The first framework we use to analyse the scenarios is the 'ethics of translational research' approach recently developed by Kimmelman (2010). Kimmelman develops the new concept of 'translational distance', which refers to the space created between cutting-edge biomedical research and clinical applications. It may not be possible in the first in-human studies to apply the concept of 'clinical equipoise', defined by Freedman as 'a state of honest, professional disagreement in the community of experts about the preferred treatment' (Freedman 1987: 142). The level of uncertainty is so high in first-in-human research employing gene transfer techniques that robust epistemic thresholds required for clinical equipoise cannot be secured. In its place, the concept of translational distance is a useful and insightful kind of 'epistemic heuristics' to understand the bidirectional flow of

knowledge between the bench and the bedside. While traditionally the value of early clinical trials has been regarded only in terms of their 'progressive value' towards later Phase 2 and Phase 3 studies, such a framework is not applicable when evaluating the social value of first-in-human research as in our case study. In Kimmelman's model, Phase 1 translational studies in between the 'bench and the bedside' are loaded with value if they stimulate preclinical research or if they stimulate further clinical development. In addition, adopting a translational distance model with a non-progressive epistemic value for these trials would help to dispel the 'therapeutic misconception (Henderson *et al.* 2006; Horng and Grady 2003) widespread among (often desperate) first-in-clinical trials volunteers. Therapeutic misconception arises where subjects misinterpret the primary purpose of a clinical trial as therapeutic, and conflate the goals of research with the goals of clinical care. As shown in a study of consent documents of gene transfer clinical trials, 20 per cent of consent documents for gene transfer trials fail to explain their purpose as establishing safety and dosage, while only 41 per cent of oncology trials identify palliative care as an alternative to participation. Moreover, the term gene therapy is used with twice the frequency of the term gene transfer (Kimmelman and Levenstadt 2005). As defined by Kimmelman, the concept of translational distance 'is intended to prompt researchers, review committees, and policy-makers to contemplate the size of the "inferential gap" separating completed preclinical studies and projected human trial results' (Kimmelman 2010: 118) and should inform both the design of the studies (which need to incorporate endpoints that make it possible for the knowledge produced to have an impact in terms of further research), and the ethical approval of the trial (which needs to take into account the concept of translational distance rather than that of clinical equipoise). We agree with Kimmelman that the translational research model better captures the reality of how information flows in translational research. As for the individual seeking to be enrolled in such an experimental trial, we recommend that researchers spell out the potential risks and benefits of the experimental procedure to the would-be volunteer; researchers should evaluate the severity of the pre-existing condition in the subject and its refractoriness to other standard treatment; and they should evaluate the subject's decisional autonomy, which will be predicated on reasonable comprehension (and voluntariness) in relation to the foregoing.

Returning to our fictional protagonist, we can see that in this particular case the risks inherent in gene transfer trials due to the viral vectors are eliminated by injecting VEGF directly into the leg muscles of the patients, and therefore the translational distance between the bench and the bedside can also be considered a modest 'inferential gap'. In addition, the pre-existing condition of chronic pain caused by peripheral artery ischemia is severe and refractory to standard treatment. And finally, Dr Gregory House seems to be in a position to make an autonomous decision, one not clouded by therapeutic misconception. As autonomy plays a fundamental role in the ethical framework describing the medical context, there would need to be strong reasons to justify interference with the patient's self-regarding and autonomous choice to participate in the trial, even recognizing as

we do that the patient may have no available option (apart from palliative care) other than participating in the trial, due to the severity of their condition and the unavailability of therapeutic options. Provided all the above conditions were met, we might reasonably reach the conclusion that their informed consent to participating in the VEGF clinical trial would be valid.

Scenario B: ethics of sports enhancement

How should we frame the request of an athlete seeking VEGF gene transfer for the purposes of better coping with pain during a competition? In the first instance, their participation might look like a case of what we could call 'physician-assisted doping'. The World Anti-Doping Agency (WADA) sets out three criteria used in the decision to call a product or process 'doping' (WADA Code 2012). These pertain to: (a) the (potential) performance-enhancing effects; (b) the potential harm to health; and (c) the (potential) health risks. Only two criteria need apply for a product or process to be prohibited. The Anti-Doping Code recognizes the rights of athletes to secure healthcare and that this right supersedes anti-doping regulations. This does not, however, allow the patient athlete carte blanche. Prior to utilizing banned products or processes athletes on a registered testing pool (who are on notice that they may be randomly tested) must submit a Therapeutic Use Exemption (TUE) Certificate signed by a relevant medical authority. This certifies that the therapy is necessary for the athlete's condition and that no non-doping alternative is available. Clearly, the process is open to abuse. Moreover, in Paralympic sport, where elite athletes have at least one disabling condition, the problem is even more complex (Van de Vliet 2012).

Leaving aside for the present the added complexities of unethical behaviour, let us assume that the athlete is asking for a TUE from the relevant authority. In addition to the World Anti-Doping Agency, this might be an international federation, such as the International Association of Athletics Federations (IAAF), or an event organizer such as the International Olympic Committee (IOC) or the International Paralympic Committee, who (interestingly) take exclusive charge of in-competition testing during the Olympic and Paralympic games. There is very little to suggest that a TUE would be achievable in this scenario. Despite TUE precedents for beta-blockers in relation to cardiac patient athletes in target-accuracy events (such as archery), it is highly unlikely that it would be given for mere pain relief where that pain is simply a marker for injury (and where there may be performance-enhancement side-effects). The deputy director of the World Anti-Doping Laboratory in Cologne, widely recognized as one of the premier testing laboratories, recently remarked upon the practice of using analgesics as analogous to doping:

> It is a grey zone. In my opinion pain killers fulfil all requirements of a doping substance because normally pain is a protection mechanism of the body and with pain killers you switch off this protection system.
>
> (McGrath 2012)

Given the longstanding routine use and abuse of painkillers in elite sport (Huizenga 1995; Nixon 1992, 1993), it might be argued that the introduction of VEGF would represent merely an extension of everyday practice. In both the first and also in this second scenario, consideration would have to be given to the autonomy of the decision-making of the individual in arriving at ethically justifiable interventions. In the second scenario this would be thought necessary, while in the first scenario this might be thought both necessary and sufficient, provided that the conditions for a modest translational distance were met, as they are in our case study. Why then is it insufficient in the context of elite sports? Well, in addition to determining the conditions of consent, additional factors regarding the ethical permissibility of VEGF gene transfer in an athletic context must be considered.

In contrast to scenario A, pain can be seen as an essential, integral part of endurance sports. Performing at an elite level in endurance sport and not experiencing pain are mutually exclusive. Indeed, an athlete's ability to tolerate pain is one of the fundamental characteristics that determine athletic performance and provide competitive advantage. Five-times Tour de France winner Lance Armstrong called the event 'an exercise in pointless suffering' (Fry 2006). He and others have talked insightfully about wanting to take opponents (metaphorically) to places that they could not endure (Hamilton 2012). The capacity to endure high levels of pain over significant time (i.e. suffering) is a highly prized trait in multi-day/week Tour event cycling (Hamilton 2012). Indeed one may refer to them as 'communities of suffering' (McNamee 2008). Not only is it the case that we must distinguish the experience of pain from suffering in sports (Cassell 2004; Lurie 2006; McNamee 2006) but in addition there are, of course, different kinds of pain an athlete can experience in competition (Koessler 2006). One is the acute kind that can be defined as an intense and specific pain that occurs suddenly, often a result of injury, often experienced by athletes competing in football or other contact sports. Moreover, one can experience such pain in endurance events too – the cycle crash, the herniated disc in running, and so on. VEGF gene transfer treatment would be meaningless for this kind of pain so it is irrelevant to this discussion. Rather, we wish to discuss the kind of pain that occurs with endurance exercise. This may include muscle soreness or a burning sensation in the lungs, the feeling that one's heart will explode if the same level of intense effort is maintained much longer, and so forth. The strength of these sensations can range from unpleasant to what is typically thought of as unbearable pain. This second kind of pain is typical of endurance sports such as marathons, triathlon, long-distance swimming and cycling, cross-country skiing, and so on. Among athletes, the former kind of pain is often referred to as a 'bad' kind, as it impairs the ability of the athlete to continue playing or competing, while the latter is referred to as a 'good' kind of pain, as it pushes the athlete to compete and perform at a higher level. Indeed, many athletes regard this second or 'good kind' of pain as an achievement and as an essential part of their life and identity as elite athletes (Howe 2004).

The level of physical training of an athlete can raise the level of pain that he/she is able to endure, and make a difference in his/her performance. Athletes also

report that the level of their 'mental toughness' (Crust 2007; Gucciardi *et al.* 2009) makes a difference in their ability to cope with pain. Different individuals, though, start from very different baselines in their abilities to endure pain (Dolgin 2010) and this is one of the factors, among many other biological and environmental factors, that affect an athlete's performance. Among these are: their birth place (contrast pre-athletic life at altitude and how this affects phenotypic factors with competitors born at or near sea level); wealth and other non-athletic factors that can enhance the possibilities of success (contrast athletes or teams with and without sports psychological services, or sponsorships that improve equipment access); genetic conditions that may confer an advantage over fellow athletes by increasing the amount of erythrocytes and oxygen supply to muscle cells (consider for example the case of Finnish skier Eero Mäntyranta who won two gold medals in cross-country skiing at the 1964 Winter Olympics. It was later discovered that he had primary familial and congenital polycythemia (PFCP), which causes an increase in red blood cell mass and haemoglobin due to a mutation in the erythropoietin receptor [EPOR] gene) (Tannsjo 2005).

There is no absolutely agreed upon standard or trigger as to when sports administrators or regulatory bodies like the WADA try to even out genetic and biological differences to reach a sufficiently 'level playing field' for all athletes: some inequalities are systematically excluded, while others are ignored (Loland 2002). What happens in practice is that we do not usually try to level biological and genetic factors affecting athletic performance, even where we know those factors confer an advantage (as with Mäntyranta), although there is currently a controversy about new IAAF and IOC rules which exclude women athletes with hyperandrogenism from competing in women's events on the basis of a supposed unfair advantage derived from increased levels of testosterone (Karkazis *et al.* 2012). Typically, philosophers generally agree that the question centres around notions of fairness and equal opportunity, or what Loland calls Fair Opportunity (Loland 2009).

Let us think counter-factually here: if we were to try to equalize all the starting conditions (of which tolerance to pain is, again, merely one example) we would move in the direction of having all athletes crossing the finish line at the same point, and then what would be left of the meaning of sport and athletic performance? After all we are precisely interested in distinguishing among excellent performers and performances. Only in certain circumstances, such as horse racing, do sports institutions initiate handicapping systems. And this, it might reasonably be argued, is to keep the competition tight and promote gambling interests. In other scenarios, where a league system – heavily underwritten by commercial media interests – has an incentive to prolong interests and more broadly spread opportunities to win, we find systems like the lower teams gaining access to the best new potential players in a draft system (such as in American Football). But in the main, we would not normally level out the effects of the genetic lottery in sports. If an athlete is 1 metre 40 we steer them away from high jump. If they are 2 metres tall, we do not encourage them to pursue a career as a professional jockey, and so on. Furthermore, a few US companies have started to sell online direct-to-consumer

(DTC) genetic tests[3] that aim to exploit the genetic lottery as early as possible, channelling children towards the most 'profitable' athletic future as predicted by the results of the tests.

As mentioned above, different athletes have different baselines and different abilities to cope with pain. While we do try to give people tools better to cope with pain in everyday life, where pain is not – with certain noted exceptions – seen to be an essential or meaningful part of the activity we are performing, in the elite sports context we do not give people those tools, because pain, as described above, is a fundamental part of practising and competing at an elite level. Pain can be distinguished from non-relevant inequalities, as for example the kind of shoes or swimsuits or bikes the athletes run, swim or cycle with, which do not impact upon the mental and physical qualities that are the source of our admiration for athletes and which are instrumental to the securing of victory. For these sorts of products, however, we can and do insist upon degrees of standardization. Thus, in baseball, cricket or tennis there are regulations regarding the size and composition of the striking implement and the ball. Curiously, in Formula 1 racing there are prizes for both the best driver and the best constructor: the best supporting team of engineers and technologists. But even here there are strict rules about engineering variations. In European football, there are even suggestions that there should be financial fair play, so that team owners cannot 'buy' victory by purchasing sufficiently large numbers of the talent pool.

We cannot, however, 'level-out' the capacity for enduring pain in endurance events without usurping or compromising a key psychological variable inherent within the test. By levelling the ability to endure pain, we would also diminish a substantial part of the meaning of athletic performance, which can be understood as trying to break one's own limits given the starting conditions one has. That is why the toleration of pain qualifies as a relevant inequality that serves inter alia to demarcate athletic merit, and we consider that genetically based therapy for pain should not be permitted as it 'undermines the meaning of sport by interfering significantly with the relationship between natural talents, their virtuous perfection, and athletic success' (Murray 2009). In other words, our view of the athlete's capacity for pain tolerance could be seen a relevant inequality and essential for the meaning of competition. In the model developed by Loland and Hoppeler, which combines a biologically based approach with a Fair Opportunity principle, the use of VEGF transfer could be understood as a way to go beyond human phenotypic plasticity, and thus to go against the Fair Opportunity principle and the idea of the virtuous development of talent (Loland and Hoppeler 2012).

Conclusions

The differences between the two scenarios we have presented are many and varied. We have focused only on the existence of a fundamental difference between a medical and an elite athletic context of VEGF gene transfer to tolerate pain. In the latter the choice is fundamentally a self-regarding one, predicated on individual autonomy together with a risk/benefits calculation as the principal

factor determining the ethics of that decision. A cautionary note must be struck here. One must be mindful of the areas of uncertainty, the limited evidential base in relation to the experiment and its hoped-for outcomes in scientific and clinical terms. Nevertheless, in elite endurance sports contexts individual autonomy ceases to play the decisive role in the ethical analysis. Sports have traditionally incorporated paternalistic practices regarding the health of competitors but also the fairness of the structuring of competition in order to produce admirable victors. The context of gene transfer matters for the evaluation of the ethical desirability or permissibility of the experimental practice we are analysing. While in an everyday life scenario, pain does not play a meaningful role (with some noted exceptions), pain does play a meaningful and constitutive role in endurance athletic competition, along with a range of other anatomical, physiological and psychological factors. By increasing the capacity for pain-tolerance, or even subtracting it altogether from the sports picture, we would inevitably subtract also a fundamental part of the meaning of that picture.

We conclude, therefore, that while we would not interfere with the decision of Dr House to be enrolled in a trial for VEGF gene transfer, we could not justify the request of the athlete seeking VEGF gene transfer to increase his/her tolerance to pain. As a tool to cope with the intractable pain that visits afflicted patients, VEGF gene transfer is ethically justifiable and desirable. In endurance sports, the use of VEGF gene transfer as an endurance enhancement technology is not merely ethically unjustifiable; it compromises an element essential to the activity itself.

What does this comparison tell us about the relationship between the ethics of clinical research (scenario A) and the ethics of sports medicine (scenario B)? We might note that, while the field of clinical research ethics is more established and has a longer history, the field of ethics of sports medicine is a relatively young one, and reflects the underlying tension between the goals of medicine (health) and elite sports (athletic excellence) (Mathias 2004). But the ethics of first-in-human studies, including gene transfer studies, are still largely under-explored. Indeed, Kimmelman's analysis of translational distance is the first and only attempt, to the best of our knowledge, to fill in the void left by the impossibility of applying the concept of clinical equipoise in first-in-human gene transfer studies, which are characterized by a level of uncertainty that is simply too high (as we have shown above). Both fields are young and relatively under-explored, and a comparison between the two may highlight insightful similarities, and shed light on problematic aspects of each.

Notes

1 First appeared in *Genomics, Society and Policy Journal* (2012), 8(1): 20–31, with the title 'Gene Transfer for Pain: A tool to cope with the intractable, or an unethical endurance-enhancing technology?', co-authored with Silvia Camporesi.

2 There may be individuals, or religions/sects, for whom/which pain has an intrinsic value.

3 Among these, Atlas Sports Genetics (www.atlasgene.com/), Geneffect (www.geneffect.com/), Sports X Factor (www.sportsxfactor.com).

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