

Doping Use Meta-Analysis: Science Seasoned with Moralistic Prejudice

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Dear Editor,

It is with much interest that I set out to read the article entitled “Personal and psychosocial predictors of doping use in physical activity settings: a meta-analysis” authored by Ntoumanis *et al.* and published in the November issue of *Sports Medicine*¹. Furthering the understanding of the factors that feature in a person’s decision to engage in potentially dangerous behaviour, which certainly includes self-administered polypharmacy, is undeniably a worthwhile pursuit. It is of direct interest to a range of medical professionals whose practice should be based on evidence, and be driven by patient-specific (and hence subjective) values. Therefore I was pleased to read the aforementioned meta-analysis and found the authors’ key contribution interesting and useful. That being said, I felt disappointed to observe that in this article, interlaced with the authors’ scientific contribution I found a concerning number of extrascientific statements fraught with a moralistic bias.

It is no later than in the first sentence of the manuscript that the reader gets a glimpse of this. The authors state that according to the World Anti-Doping Agency (WADA) doping “refers to the use of illegal performance-enhancing drugs and methods to improve performance”. Quite apart from my not being able to find this statement in the cited document² (indeed neither the word ‘illegal’ nor ‘illicit’ nor any of their derivatives appear in the document which can be found at http://www.olympic.org/documents/fight_against_doping/world_anti_doping_agency/2009_world_anti_doping_code-en.pdf), it is unclear to me why the authors would adopt such an ill-thought-out definition as the basis of their inquiry. It immediately leads the reader to wonder if the authors consider a person administering, say, testosterone enanthate in the UK not to be engaged in doping (since the use of anabolic steroids is not an offence under the British law) in contrast to a person doing the same in the USA. Even less

clear is what relevance WADA has to individuals who are not involved in competitions sanctioned by this body (which evidence suggests describes the majority of performance enhancing drugs [PEDs] users³) – a number of studies included in the meta-review involve recreational trainees and athletes (mostly bodybuilders) who compete in organisations which do not subscribe to WADA’s anti-doping code. Where is the moral imperative in this case?

Throughout their article Ntoumanis *et al.* appear to take as the end goal the reduction in the use of PEDs (to avoid the possibly morally overloaded term ‘doping’), rather than harm reduction. This is readily witnessed by the reminder to the reader to “[bear] in mind that doping is considered an immoral behavior”. It is certainly not clear to me why the use of PEDs would be considered inherently immoral. When it comes to the use of PEDs by individuals not competing in sanctioned sports events, whom are these individuals cheating? Why would enhancement, *i.e.* betterment, of whether physical or cognitive performance be immoral? Interestingly, these realizations are not increasingly frequently being voiced in academic circles⁴ but are also reflected in the attitudes of the broader public⁵. Even in the context of competitive sports it is not clear why the use of PEDs would necessarily be wrong. Consider, for example, that the ratio between the upper and lower ends of the nominally normal serum testosterone concentrations in healthy male adults is approximately 4, which is rather staggering. In what way does it violate the spirit of fairness (the most commonly voiced ethical argument against the use of PEDs in sports competitions²) if an athlete on the low end of the spectrum were to administer testosterone at the dose which would bring his serum testosterone to the level of a more genetically fortunate competitor who is on the high end of the scale? It would be difficult, to say the least, to argue against such PED use on the basis of either a level playing field or indeed harm prevention⁶. Even a cursory examination of the views typified by WADA’s code readily reveals that they are internally inconsistent⁷; rather than being based on sound moral principles the populist anti-PED dogma is not much more than a thinly veiled appeal to nature.

Lest I be misunderstood, let me state clearly that my chief objection is not with the moral stance taken by the authors but rather the manner in which this stance was expressed. It is unacceptable not even to acknowledge the growing body of academic work which questions the populist anti-PED narrative^{4;7;8;9;10;11}. This interlacing of scientific findings with a superficial treatment of related moral questions is widespread in the study of PEDs and, despite its superficiality, serves to propagate and reinforce the impression that the moral judgements expressed by the authors are so nearly universally held that they require no elaboration whatsoever. I fully welcome reasoned disagreement on this issue

but I invite for this disagreement to take the form that it deserves: an intellectually honest and considered argument communicated in an appropriate venue such as one of a number of sports ethics or medical ethics journals.

References

1. Ntoumanis N, Ng JY, Barkoukis V, Backhouse S. Personal and psychosocial predictors of doping use in physical activity settings: a meta-analysis. *Sports Med.* 2014;44(11):1603–1624.
2. WADA. World anti-doping code. Montreal: World Anti-Doping Agency; 2009.
3. Parkinson AB, Evans NA. Anabolic androgenic steroids: a survey of 500 users. *Med Sci Sports Exerc.* 2006;38(4):644–651.
4. Savulescu J, ter Meulen R, Kahane G, editors. *Enhancing human capacities.* New York: John Wiley & Sons; 2011.
5. Sabini J, Monterosso J. Judgments of the fairness of using performance enhancing drugs. *Ethics Behav.* 2005;15(1):1782–1789.
6. Zhang G, Gu Y, Wang X, et al. A clinical trial of injectable testosterone undecanoate as a potential male contraceptive in normal chinese men. *J Clin Endocrinol Metab.* 1999;84(10):3642–3647.
7. Smith ACT, Stewart B. Drug policy in sport: hidden assumptions and inherent contradictions. *Drug Alcohol Rev.* 2008;27(2):123–129.
8. Savulescu J, Foddy B, Clayton M. Why we should allow performance enhancing drugs in sport. *Br J Sports Med.* 2004;38:666–670.
9. Kayser B, Mauron A, Miah A. Current anti-doping policy: a critical appraisal. *BMC Med Ethics.* 2007;8(1):2.
10. Kayser B, Mauron A, Miah A. Viewpoint: Legalisation of performance-enhancing drugs. *The Lancet.* 2005;366:S21.
11. Fost N. Banning drugs in sports: a skeptical view. *Hastings Cent Rep.* 1986;16(4):5–10.