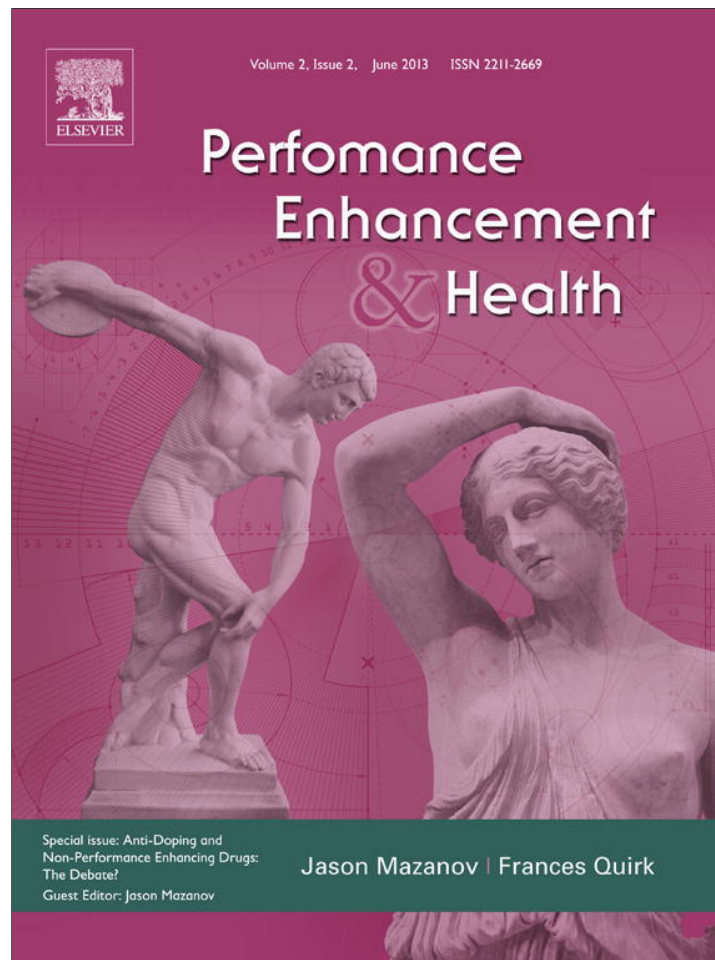


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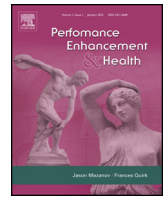
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Commentary

Flawed reasoning for testing for recreational drugs in anti-doping

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The World Anti Doping Agency (WADA) uses three criteria for the inclusion on the list of forbidden substances or methods in sports: (1) it potentially increases performance; (2) it is potentially dangerous for the athlete's health; (3) it violates the so-called *Spirit of Sport*. Two of these criteria must be met for it to be included. In this issue two articles discuss the inclusion of illicit drugs (such as cannabis or cocaine). Both criticise the reasons behind WADA's policy and its operationalization to include illicit drugs on the list, but come to diametrically opposed conclusions. [Henne, Koh, and McDermott \(2013\)](#) argue in favour of inclusion of illicit drugs. They contend that any illicit substance that comes with a health hazard, performance enhancing or not, should be banned. The principle reason advanced is preventing *impressionable youth influenced by the conduct of their sporting idols* from copying their heroes' behaviour, the role-model argument. They propose dropping the *Spirit of Sport* argument while keeping to the protection of the athlete's health argument, independent of performance enhancing effects. In contrast, [Waddington, Christiansen, Gleaves, Hoberman, and Møller \(2013\)](#) favour exclusion of illicit 'recreational' non-performance enhancing drugs from the list. They reason that if an illicit substance is not performance enhancing, its inclusion weakens WADA's position towards doping in sports in its more narrow definition, i.e. the use of forbidden pharmacology or methods to improve sports performance. [Waddington et al. \(2013\)](#) remind us that initially 'social' drugs such as cannabis were explicitly excluded, but then later introduced, probably as the result of increased pressure from the global war on drugs movement.

Apart from their conclusions, another characteristic sets these papers apart. The [Waddington et al. \(2013\)](#) piece is a coherent, well-written, well-referenced argument, with a balanced

conclusion. The [Henne et al. \(2013\)](#) piece, by contrast, presents serious flaws in both form and content. They cite, for example, the present and former directors of WADA and the president of the IOC, prime anti-doping actors with vested interests, in favour of their role model argument. Those citations are unproven hypotheses, published in press articles and a book for the general public, respectively.

[Henne et al. \(2013\)](#) further illustrate their reasoning with paragraphs summarising performance enhancement effects and health hazards for certain drugs. We are almost lost for words about the choice of references. Allegedly about opiates, [Koh, Freeman, and Zaslowski \(2012\)](#), is about alternative medicine like acupuncture and does not even discuss opiates, for which, in healthy subjects, there is actually no evidence of any performance enhancing effects. Even worse is the reference of [Goral \(2008\)](#) for barbiturates and benzodiazepines, which are, if anything, performance impeding. It appeared in an open access journal that is not indexed in Medline, from a commercial publisher with a questionable track record for promoting scientific integrity. It is a poorly written and biased personal narrative review. Many other references used by [Henne et al. \(2013\)](#) present similar problems.

The [Henne et al. \(2013\)](#) piece is a good example of the flawed reasoning used by those in favour of the global war on drugs. It favours repression and uses a semi-scientific approach with irrelevant citations or of doubtful scientific quality, the end-result being disguised as 'science'. It illustrates how the war on doping is used as a backdoor for the continuation of the war on drugs.

To summarise, [Henne et al. \(2013\)](#) support the globalization of a hard-line approach against the use of illicit drugs, while [Waddington et al. \(2013\)](#) provide rather compelling reasoning for excluding cannabis from anti-doping control that echoes the international shifts in the way cannabis use in general society is viewed.

We strongly disagree with [Henne et al. \(2013\)](#). The war on drugs is a fiasco with an extremely high cost ([Wood, Werb, Marshall, Montaner, & Kerr, 2009](#)). Anti-doping in sports should not be used

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to promote zero-tolerance to drugs in general society. We agree with Waddington et al. (2013) but would go further. We believe that current anti-doping policy in sports is seriously flawed, and that adding illicit drugs promotes the zero tolerance approach to drugs in society, leading to more marginalisation and stigmatisation of drug users; and rather than protecting the athletes' health it would put it more at risk by driving it further underground (Kayser & Broers, 2012; Kayser & Smith, 2008; Kayser, Mauron, & Miah, 2007). WADA should allow pharmacological performance enhancement and only exclude or limit the use of substances or methods proven dangerous, focussing on the athlete's health using a harm reduction approach. Game theory predicts that current anti-doping surveillance carries a high risk of continued doping (Buechel, Emrich, & Pohlkamp, 2013), which today appears to be the case since doping continues to occur. Only increased surveillance would increase the likelihood of less doping, but elite athletes already have to inform about their whereabouts for 365 days a year, and are subjected to regular urine and blood tests and longitudinal monitoring in so-called biological passports.

To conclude, the idealization of sports endeavour negates the actual drivers of sports. Ever since its first edition, 100 years ago, the Tour de France's prime motive was economic. It was invented to increase readership of a French journal (*L'Auto*), and today it is still owned by a private company making a lot of money. For most of its existence doping played, and still plays, an important part in the success of the Tour, while the increasing pressure over the last 10 years for a 'clean Tour' aims for something that never existed. Even though extreme surveillance of athletes and improved laboratory techniques have led to changes in doping behaviour, the mind-set of athletes and their teams has not changed. Any (licit) method or technology is exploited, often hidden from the other athletes and teams, in order to get an edge over ones' opponents, and most

certainly some continue to transgress against the anti-doping rule. As suggested a few years ago in an editorial of the journal *Nature*, perhaps the Tour de France could show the way ahead here. In terms of public respect, endurance cycling has the least to lose and perhaps the most to gain. To be sure, a change in the rules would lead to the claim that 'the cheats have won'. But as no one can convincingly claim that cheats are not winning now, or have not been winning in the past, that claim is not quite the showstopper it might seem to be (Anonymous, 2007).

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