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### Abstract

This article explores disciplining effects of current anti-doping surveillance systems on the health consequences of non-elites' daily behaviors and habits. As they are left out of direct anti-doping testing and enforcement, it is tempting to argue non-elites are unaffected by the anti-doping efforts focused on the elite level of their sport. However, it is because they are not subject to anti-doping surveillance systems nor forced to comply with anti-doping regulations that non-elites are implicated within the wider arena of disciplinary power that envelops both elite and non-elite athletes and anti-doping agencies (Foucault 1979). Drawing on data from 28 interviews with non-elite runners, I argue these runners do conform to the rules and norms of their sport as far as they understand them, but their knowledge of banned substances is inadequate and many non-elite runners have only a superficial and sometimes incorrect understanding of doping. Many view doping and its associated health risks as a problem only of elite running, as well as a problem limited to only a handful of widely publicized performance enhancing drugs or doping methods. As a result of these misunderstandings non-elite runners are vulnerable to negative health effects of over the counter (OTC) medications and nutritional supplements, which they view as "safe" and part of normal training as a result of the current elite surveillance model of anti-doping. The recent death of a non-elite marathon runner linked to use of the unregulated energy supplement DMAA demonstrates that questionable products are used by runners who may not be fully aware of the risks of use.

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### Introduction

When asked how they view doping within their sport, many non-elite runners immediately begin discussing the activities of elite or professional runners. They talk about performance enhancing drugs (PEDs) using words like "risky" and "unhealthy," and regard runners who have failed doping tests as "cheats" and morally "bad." In some ways, discussing elite runners when the topic of doping arises is logical. Elite athletes are subject to constant surveillance through increased testing protocols and programs such as the athlete biological passport (ABP) program, they are forced to comply with doping regulations set out by the World Anti-Doping Agency (WADA) in order to compete, and the names of elite runners continually show up in newspapers when doping scandals occur. Yet, the effects of these anti-doping efforts do not simply stop at the line between elite and non-elite runners. They also bleed into the everyday practices of the non-elite runner.

Anti-doping surveillance technologies are directed at the high-risk population (Dean 1998) of elite athletes. Elite runners are regarded as suspicious in terms of doping and PED use because the perceived stakes of winning a competition—prize money, often in large amounts, and sponsorship deals resulting from major wins—are high enough that elites may be tempted to use PEDs. Elite surveillance works to discipline runners by monitoring their bodies in order to detect the presence of banned substances or doping methods. Because they can be tested at any time, elites must conform to anti-doping regulations or face sanctions, including bans from competition (WADA 2009). Non-elite runners, in contrast, generally

do not rely on race winnings as a primary source of income. As the stakes are perceived to be much lower, so too are the risks of doping, which do not warrant direct biological surveillance.

This paper explores disciplining effects of current anti-doping surveillance systems on the daily behaviors, habits and health consequences of non-elite runners. As this group is not exposed to direct anti-doping testing and enforcement, it is tempting to argue non-elites are unaffected by anti-doping efforts that target the elite level of their sport. However, because non-elite runners are not subject to anti-doping surveillance systems nor forced to comply with anti-doping regulations, they are implicated within the wider arena of disciplinary power that envelops both elite and non-elite athletes and anti-doping agencies. Non-elite runners report engaging in self-surveillance in their training and supplementing practices, often relying on those they view as experts when making decisions about how to enhance their performances with minimal risk to their health and to ensure conformity to the rules and norms of their sport *as far as they understand them*. Since their knowledge of banned substances is largely derived from media accounts of elites who are caught doping, many non-elite runners have only a superficial and sometimes incorrect understanding of doping. Many view doping and its associated health risks as a problem only of elite running that remains limited to only a handful of widely publicized PEDs or doping methods. As a result of these misunderstandings, non-elite runners are vulnerable to many negative health effects from the misuse of over-the-counter (OTC) medications and nutritional supplements<sup>1</sup> they view as “safe” and part of normal training despite their own continuous self-surveillance.

This paper commences with a discussion of the literature on discipline and surveillance, beginning with the work of Michel Foucault (1979, 1990, 2007), which demonstrates the ways discipline and surveillance are deployed to manage entire populations, followed by Nikolas Rose’s (1999) discussion of how regulatory expertise is deployed as a way to guide responsabilized neoliberal citizens’ decision-making process to meet social health goals. These arguments are followed by a brief description on doping in the sport of running and of the rise of the current anti-doping approaches. This paper argues the current elite surveillance-based systems of anti-doping can work against the health promotion goals of anti-doping agencies by leading non-elites to self-surveill only to the extent that they are following the rules as they understand them. This process leads to a blind spot in the internalized anti-doping gaze that allows non-elite runners to simultaneously engage in self-surveillance while taking for granted the safety and perceived benefits of unregulated and non-banned nutritional supplements. I examine various ways these (mis)understandings inform how non-elite runners engage in self-surveillance to ensure they remain within the normative bounds of their sport when making decisions as to which products to use in their own training.

## Surveillance and Sport

One way to view anti-doping efforts is as a result of external control exercised on athletes by forcing them to yield to a repressive form of surveillance and power. However, Michel Foucault’s work, subsequently built upon by Nikolas Rose and others, provides a framework through which to understand the ways non-elite athletes come to self-surveill, even in the absence of external testing at their competitive level, and the impact these processes can have on negative health outcomes. Foucault described the role of disciplining institutions, including schools, prisons, and the military, in exposing individuals to normalizing rules, authorities, and habits. These techniques are applied continually on and around individuals to enhance discipline bodies and produce “docile bodies” (Foucault 1979). Foucault argued these disciplining forces are enhanced by surveillance, famously using Jeremy Bentham’s Panopticon design to encourage self-discipline amongst prisoners by creating an illusion of ubiquitous surveillance

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<sup>1</sup> The National Institute of Health (NIH) defines dietary supplements using a four-part definition developed by Congress in the Dietary Health and Supplement Education Act. According to the NIH, a dietary supplement “is intended to supplement the diet; contains one or more dietary ingredients (including vitamins; minerals; herbs or other botanicals; amino acids; and other substances) or their constituents; is intended to be taken by mouth as a pill, capsule, tablet, or liquid; and is labeled on the front panel as being a dietary supplement” (NIH 2007).

and control according to prescribed standards (Foucault 1979). Through such processes of normalization, disciplinary power does not necessarily repress but invests disciplined bodies with strongly internalized norms (Rail and Harvey 1995). Within the sporting context, athletic bodies are subject to the one-way gaze of anti-doping agencies through the Panoptic metaphor.

Governmentality is a conceptualization of power that accounts for the role of disciplining institutions in mass-population surveillance and social control. Instead of seeing power as exclusively state held and top-down (Foucault 2007), the governmentality ensemble is aimed at shaping individuals to autonomously care for and govern themselves and each other based on internalized knowledges and discourses that inform and direct their behavior. Foucault explained that governmentality was:

the ensemble formed by institutions, procedures, analyses and reflections, calculations, and tactics that allow the exercise of this very specific, albeit very complex, power that has the population as its target, political economy as its major form of knowledge, and apparatuses of security as its essential technical instrument...the type of power that we can call “government” and which has led to the development of a series of specific governmental apparatuses (*appareils*) on the one hand, to the development of a series of knowledges (*saviors*).

(Foucault 2007: 108)

This form of governance includes disseminating expert knowledge on how to properly behave and make decisions in the development and care of oneself (Rose 1999). Working through apparatuses such as schools, hospitals, or sports, disciplinary techniques aid in the administration of the social body by producing knowledge of the population through statistics reflecting medical, criminal, and institutional expertise. Individuals govern themselves in accordance with this knowledge, believing they are making a “free choice” to live what they have been trained to understand as good and healthy lives. Self-government within a neoliberal society works through the deployment of technologies of power or government, which Nikolas Rose describes as “technologies imbued with aspirations for the shaping of conduct in the hope of producing certain desired effects and averting certain undesired ones” (1999: 52). Instead of bureaucracies directing modes to promote individual health, experts offer instruction and advice based on the assumption that individuals want to be healthy (Rose 1999: 86-87). Rose argues that experts, such as sports officials and medical professionals, offer advice and guidance to populations in an effort to direct their decisions towards institutionally established goals of promoting health for the entire population. Anti-doping experts have used such health promotion philosophies as a foundational justification for their efforts to target elite athletes since the 1960s.

Linking sport participation with healthy lifestyles, labeling banned substances as contrary to good health, and attaching social shame to poor health choices, work together to make bans on certain substances appear logical and in promoting self-discipline amongst athletes. Health and the best ways of achieving it are presented to the individual as both a choice and a broader social obligation (Rose 1999: 87). Equally, doping is considered a matter of individual choice that can lead to competition bans when athletes are tested and detected. However, for non-elites who are not subject to testing, the threats of negative health outcomes from doping appear to contribute to different forms of self-surveillance. Individual decisions for maintaining their own good health are directly tied to one’s perceived morality and individuals must constantly monitor their adherence to health guidelines to demonstrate their moral worth as a citizen. Through these processes external forms of mass-population surveillance and regulation give way to self-surveillance.

### *Doping and Running*

Despite the long history of performance enhancing substances in various sports (Mazanov and McDermott 2009), it is only since the 1960s, following the televised death of a Tour de France cyclist who was

engaging in doping, that doping has been identified as a problem for both sports and athletes (Waddington 2000). Since then, track and road runners have been at the center of doping scandals as much as athletes in other sports. The formation of the World Anti-Doping Administration (WADA) in 1999 marked the direction in which the “truth” of doping as a problem for sport and athletes was evolving (Houlihan 2003).<sup>2</sup> Spurred by the Olympic movement, WADA was founded to both legislate and enforce anti-doping and extensive drug testing policies, and to harmonize these efforts across national- and distinct sports governing bodies (WADA 2009).

WADA’s doping policy centers on its list of prohibited substances. This list is updated annually to prohibit those products and procedures that are considered to be illicit doping agents or practices (WADA 2012). Banned substances include items such as anabolic steroids, as well as some less familiar products such as diuretics. WADA differentiates between substances banned while an athlete is “in-competition”, “out of competition,” or at any time, as well as stipulating various sport-specific bans. The United States Track and Field (USATF) governs American road racing and the United States Anti-doping Association (USADA) oversees this anti-doping program.

The federated system of anti-doping bureaucracies provides multiple levels of testing surveillance—from the local race organizer to international bodies at World Championship events—and conducts extensive surveillance focusing mainly on elite athletes. Multiple levels of testing not only result in a larger volume of biological samples, but when coordinated can also “improve upon” the single testing method to allow longitudinal profiles of individual athletes (Zorzoli 2011). The ABP expands on some of the previous limitations of illicit drug testing by allowing agencies to compile a biological profile for each athlete that can track changes in blood markers that are suggestive of doping (WADA APB 2012). This system is meant to be more sensitive to the low-level or cyclical use of substances by repeatedly testing and monitoring athletes’ blood profiles. These biological surveillance systems are intended to deter athletes from using prohibited and potentially harmful substances by decreasing their ability to mask or cycle their consumption, while allowing testers to track changes in particular blood makers indicative of some form of doping. Despite this increasing surveillance, the pervasiveness of doping at the elite level remains unknown. Those with the closest proximity to road athletes attest that doping is indeed a problem within the sport. Results of a survey of race directors, elite agents and event coordinators at the 2006 Road Race Management Race Directors' Meeting announced that they believed as many as 10 to 20 per cent of elite runners were doping (Monti 2006).

If the number of elite athletes doping is unclear, the amount of doping at the non-elite level is anyone’s guess. Though non-elite runners are subject to the same rules as elites, they are not targeted for doping tests. One reason often cited for the lack of testing at the elite level is the prohibitive costs (Monti 2006). One can reasonably presume the same argument applies to the testing of non-elite runners, especially if they are assumed to have little monetary or commercial incentive to resort to doping. Difficulty determining the prevalence of doping at the non-elite level is compounded by their lack of understanding of doping rules and prohibited substances (Laure 1997). Lentillon-Kaestner and Ohl’s (2011) study on the accuracy of estimating the prevalence of doping in sport found most amateur athletes lack knowledge of anti-doping rules and define doping in ways that depart from official WADA definitions that apply to elite athletes.

Several studies on athletes and supplementation have suggested many elite and non-elite athletes use dietary supplements with the belief they may enhance performance (Baume, Helleman and Saugy 2007).

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<sup>2</sup> Established in 1999, WADA is comprised of a Foundation Board, an Executive Committee, and several sub-committees. The Foundation Board and each committee are composed of equal numbers of representatives from both the Olympic Movement and governments (WADA 2009). The IOC created WADA for several purposes: to define what specifically the problem of doping entails; to institute regulations around doping practices and substances; and to conduct biological tests of competitors to ensure that they are in compliance with the anti-doping rules of competition (Houlihan 2003).

Suzic Lazic et al. (2011) researched supplement usage in Serbian athletes tested by the Anti-doping Agency of Serbia, a WADA affiliate. They found 74.6 per cent of athletes reported regularly using at least one dietary supplement or OTC medication, while 21.2 per cent reported using six or more. Pipe and Ayotte found that, due to the lack of regulation, many substances of “dubious value, content, and quality” are widely available (2002: 245). Though dietary supplements are not banned, often due to mislabeling and problems of cross-contamination during manufacturing, they cannot be assumed free of banned substances, as they are not regulated by any agency in the way food or medications are regulated by organizations such as the Food and Drug Administration (FDA). While supplement manufacturers are required to report adverse health outcomes related to supplements to the FDA, and as many as 50,000 adverse events are estimated to occur annually, relatively few are formally reported (Cohen 2009). Anti-doping agencies have also issued warnings to athletes to beware of certain supplements and USADA has a page on its website<sup>3</sup> dedicated to the risks of supplements. Troublingly, Harel et al. (2013) found that supplement recalls are not necessarily mandated or carried out even when the FDA confirms the existence of contamination.

The recent death of a non-elite marathon runner linked to use of the unregulated energy supplement DMAA contained in product *Jack3d* demonstrates that such products are readily used by athletes who may not be fully aware of the associated risks to their health (Hamilton 2013). The widespread use and availability of supplements normalizes their presence in the training regimens of non-elite runners. These processes of normalization mean that over time athletes who engage with the risk on a day-to-day basis consider the overall health risks to be mundane (Albert 1999). Maughan, Greenhaff and Hespel (2011) caution that, as athletes become more and more desensitized to taking and using supplements, they will initially exercise caution in order to minimize health risks from novel supplements that lack in institutional research on their efficacy and safety, but which erodes gradually over time as their use of these supplements becomes routine.

### *Surveillance and Discipline of Runners*

The bodies of runners are on display when they compete in races. This visibility allows fellow runners, coaches, the media, fans, and sports officials to engage in various forms of surveillance (Foucault 1979) that involve viewing and judging the athletes’ performances and bodies. This “normalizing gaze” enables the classification of runners as either normal or pathological and the formal regulation or punishment of those who appear to transgress normative bounds. Elite runners’ bodies are further made visible via blood and urine anti-doping tests. As anti-doping efforts rely increasingly on biological surveillance systems, intimately personal markers of doping that were previously invisible are rendered visible. For elite athletes, testing has led to a shift from surveilling what is visible *on* the body to surveillance of what is made visible from *within* the body. Anti-doping surveillance technologies in sport normalize the ideal of the “clean” athlete who embodies what WADA describes as the “spirit of sport.” This “spirit” includes such values as fair play, honesty, good health, and excellence in performance (WADA Code 2009:14). These values simultaneously pathologize any athlete who departs from this standard through doping or use of PEDs.

The inner self of the athlete is also implicated in biological test results. A doping test not only reveals a biological truth of the individual, but the test is also read as a visible manifestation of the athlete’s inner psychic self (Grosz 1994). Deleuze (1988) posited that what we can say about bodies depends to a large extent on what we can see, and what we can see is bound up in the underlying discourses that actively produce and establish the truth of the subjects for which they speak. Such biological discourses are “regimes of knowledge that lay down the conditions of possibility for thinking and speaking.” However, “at any particular time, only some statements come to be recognized as ‘true’” (Entwistle 2000: 17). Thus, biological anti-doping regimes produce the truth of what constitutes athletes as a group, as well as the

<sup>3</sup> <http://www.usada.org/supplement411>



acceptable behaviors and ways of being an individual athlete. No longer reliant on the exterior visual field of athletic bodies, biological testing allows the truth of the inner self of the athlete to be read from formerly invisible matter through a microscope (Deleuze 1988). Body and self become indistinguishable, then are categorized as normal in the case of a negative test, or pathological if banned substances are found. In this way, doping tests shift the normalizing gaze to establishing the rightness or wrongness of an athlete's character. For runners, negative tests indicate a morally good, clean inner-self, while positive tests signify the flawed and dirty, morally corrupt character. Surveillance by the media, coaches, running peers and others to anti-doping discourses exposes non-elite runners into various forms of self-discipline that conform to externally established or "proper" modes of being as runners.

Biological testing expands what is visible, and therefore readable, only for those who undergo the test. As non-elite runners are not subject to the same biological surveillance that applies to elites, they are not forced to confront the externally determined and regulated "truth" of their own invisible biology, thus shielding their inner selves from the anti-doping regulatory gaze. The biology of non-elite runners, and hence their own inner truth, remains hidden, unseen and unread. Nevertheless, through observing the self and others (Rail and Harvey 1995) the pervasive anti-doping gaze in contemporary elite sport promotes various forms of self-surveillance amongst non-elite athletes. Internalizing this gaze leads runners to self-surveill to ensure their conformity to the clean ideal by following the dictates of the running environment (Shogan 1999) even when they are not exposed to or remain outside these formal biological surveillance processes (Lang 2010).

Self-surveillance relies on the individual's understanding of the parameters of what is normal for them. When there are differences in what is understood as normal, healthy or acceptable between rule-makers such as WADA and individual, the result is a potential blind spot in the internalized gaze. For non-elite runners, many of the lesser known banned substances and potentially harmful but legal substances are located in this blind spot. As their internalized gaze is not as clear as that of the elite runner, non-elite runners may mistakenly make decisions they view as correct or healthy but that may result in short-, long-term or even fatal consequences. In the following sections, I will show how gaps in non-elite runners' knowledge and perceptions of supplement safety and doping can leave them vulnerable to mistakenly using a banned substance or harmful supplement even as they continue to self-surveill in order to be morally good and healthy citizens.

## Methods

The runners interviewed for this work were part of a larger project on non-elite runners and doping. Interviews were conducted using a semi-structured interview format with non-elite runners based in New York City. Each runner was affiliated with a club team governed by the New York Road Runners (NYRR) organization. The reasoning behind limiting this sample to NYRR-affiliated team members is three-fold. First, team affiliation requires some form of interaction with other runners, as opposed to fitness, recreational, or competitive solo runners who tend to work out alone or do not interact with others. Second, as many runners may not race to win or place, the team competition structure provides a team-oriented goal that can induce runners to race regularly in order to field a points-scoring team, while providing a competitive goal outside of their own personal motivations. Third, individuals competing in NYRR-sponsored races are required to agree to the rules of competition when registering for a race, including conforming to anti-doping regulations. Therefore, racing for an affiliated team ensures that runners have agreed to a formal anti-doping code of conduct.

Recruitment of interview participants began from my own position as a non-elite runner and built outward through the networks of initial interviewees. The sample is a result four waves of recruitment. As a condition of taking part in this study, each interviewee provided contact information for any three non-elite runners fitting the study criteria, who were then notified of the recommendation from another runner

who had taken part in the study. This networking method, while similar to a snowball sampling method, has many advantages for qualitative research. By limiting the number of contacts from each respondent to three, the risk of “peers with larger personal networks to recruit more extensively than peers with smaller networks” is significantly reduced (Schensul et al. 1999: 218). Recruitment drew participants from up to five degrees of separation from myself. This distance ensured that participants differ from those derived solely from the personal network of the author, providing a sufficient sample that does not contain biases often found in snowball samples (Semaan, Lauby and Liebman 2002).

Twenty-eight semi-structured interviews were conducted between June 2011 and April 2012. An interview guide was developed with several open-ended questions focusing on the participants’ non-elite running careers, perceptions of health, and views on doping and doped athletes. This semi-structured interviewing method allowed for flexibility during the discussion (Schensul et al. 1999) and enabled clarification of a response, elaboration on a comment or response, or follow-up questions to be asked on a case-by-case basis. The audio-recorded interviews were transcribed and the data organized using the qualitative analysis software Atlas.ti. Coding was guided by the three main thematic categories established in the interview guide—knowledge, ethics, and health—while several second-order categories were drawn from directly from the data that covered specific topics emerging during the interviews (e.g. “supplements” and “prescriptions”).

### **Non-Elite Self-Surveillance**

The non-elite runners interviewed for this project routinely engage in self-surveillance for the sake of both performance and health. They keep logs of how much mileage they run daily, weekly, and monthly, record mile split times on training runs, are vigilant about how they recover from hard workouts and racing efforts, and keep track of their diet in order to maintain a specific weight and to ensure they eat the correct balance of carbohydrates, fats, and proteins. These runners also report experimenting with and regularly using nutritional supplements as part of their surveillance process. The runners describe these processes as conscious and on-going routines. Most report using a supplement and then carefully monitoring what effect, if any, they perceive it has on their energy levels, training outcomes, and race performances. The interviewees report regularly revisiting their routines and adjusting them according to what seems most effective to maximize performance and their health. They also sometimes try new products that may be recommended by other runners, featured in running media, or sold at race expos or supplement retail shops.

The following sections outline how these runners understand doping as an issue that does not concern runners at the non-elite level, how they (mis)understand what constitutes doping, and how these perceptions shape runners’ decisions about supplement usage. This material suggests this sample of non-elite runners has internalized the anti-doping gaze, even though it is only directed at elite athletes, and successfully self-surveilled to stay within the acceptable boundaries of substance use as far as these are understood. However, the specifics of anti-doping regulations, banned substances, and nutritional supplements are located within the blind spot of this gaze, ultimately leaving these non-elite runners susceptible to negative effects of products they assume are safe and well regulated.

#### *An Elite Problem*

When asked to describe a doped athlete, most interviewees gave examples of elites who had failed a doping test, such as Ben Johnson or Marion Jones, or cited other athletes they suspected of “getting around” testing protocols. Most interviewees felt doping was not pervasive in their local community, such as Gillian, a 39-year-old who has run competitively for 15 years: “I don’t think it’s widespread at the regional level. I would think more at the elite, race winning, money type it would be more prevalent.” Sam, a 46-year-old journalist, shared these views:

I would say doping is pretty prevalent in the elite running community. I think the stakes are too high that there is no reason for someone not to do it ... (at the non-elite level) I don't think it's probably that widespread.

As non-elite runners are not subject to doping tests, they can view themselves and their peers as conforming to the norms of their sport based on personal or experiential information. This became clear during the interviews, as runners would readily talk about the character of elites who tested positive for banned substances, but were reluctant to even use the term “doping” when discussing themselves and their fellow non-elites. Usually citing a lack of evidence in the form of an anti-doping test, all but two interviewees said they would not turn in a non-elite runner if they suspected or had knowledge the other runner was using PEDs or was otherwise doping. Without a blood or urine test, it was considered impossible to show that someone was doping. Interviewees suggested their decision also depended on their relationship with the runner in question, with the general consensus that a non-elite athlete would not “rat out” a friend.

Though the interviewees shared a view of doping as cheating and athletes who use banned substances as morally corrupt, interviewees would not view their friends as “bad” people or “cheaters” who deserved to be banned from competition if they were caught doping. All but two interviewees reported being more worried about “dangers” and “health risks” for friends using PEDs. Given the harsh views expressed towards elite runners, this moderate view of non-elite runners considered to be friends suggests a fundamental difference between the motivations of each group engaged in running. Elites who dope were viewed as denying the rightful (non-doped) winner of the victory and any monetary or symbolic prize. Winning was less important to non-elites meaning they would not deny another runner of some tangible benefit, such as a cash prize or medal, by raising an allegation of doping. Further, many interviewees noted that if a non-elite runner were to use PEDs it would not matter as much since most non-elites do not receive any finishing prize, or if they do it is a prize given to all finishers, such as a general finishers’ medal.

Almost all the interviewees were loath to admit they would dope or use PEDs, but several readily admitted they would be willing to use “something” they knew was banned in extreme circumstances. A runner of five years, 56-year-old Chris admitted:

I have a friend who has been injured for a long time and they are testing a new system. They take blood and do something and put it back. Would I do that? Probably. If I could never run again. Sure ... If I was in a circumstance where a doctor said you will never run again, I don't know what I would do.

Chris did not view himself or his friend as morally bad people or cheaters, though earlier in our conversation he was clear on his view of elites who were “caught cheating” by using banned substances to race: “It would not be the right way, it would be cheating. It is cheating. Taking an enhancement drug, it is cheating.” However, being caught cheating in this context entails testing positive for PEDs during an anti-doping test, which Chris is never likely to take. Chris’ view is consistent with the other interviewees’, who generally saw doping as determined through biological tests, and therefore a problem only at the elite level. Since elites are the only group subject to anti-doping surveillance, it follows that they are the only group within running that can definitively be labeled “dopers.” However, this view is limited by non-elites’ understandings of doping regulations. The next section shows how the interviewees’ understandings of what is encompassed under anti-doping regulations remains limited to only a few widely known substances.



### *(Mis)Understanding Doping*

Most interviewees in this study were ignorant of the majority of anti-doping regulations or of the extensive list of substances that are prohibited from competition. In general, interviewees thought doping was limited to the substances and methods most commonly detected and reported upon when elite athletes have tested positive for PEDs: anabolic steroids, Erythropoietin or EPO, blood doping involving banking one's own blood, and human growth hormone or HGH. Many reported they were unclear on the written content of anti-doping regulations and relied on media and news accounts of elite or professional athletes in all sports for information on what constitutes doping. Most interviewees were unable to elaborate how PEDs could be harmful to one's health. However, all but one interviewee reported intentionally avoiding PEDs and anything they understood as doping.

Stan, a 40-year-old nutrition student and a regional 5-kilometer champion, thought doping included: "Shooting some chemicals in your blood, or giving your blood more oxygen. I think they're taking blood out and then shooting chemicals into in to give it more oxygen." Chris offered some examples of what he viewed as doping: "Taking HGH for example. Doing testosterone injections, I consider doping. Or an artificial product that would be an enhancement and are not natural." Even as a marathon runner who has won or placed in several races though was never given an anti-doping test, Carlo was not much clearer on the regulations:

I think it's more injecting yourself with—or I'm not sure say injecting but taking some sort of foreign substance or taking, you know, like blood doping, adding something; another more blood to your system to increase your ability to—like exchange oxygen or even like when running you know, the recovery. So you know, HGH—and I don't know if runners really take HGH or marathoners but I'm sure like blood doping and EPO to increase your blood volume and things like that, yeah.

The interviewees' views of doping focused on substances used to increase power or strength (e.g. anabolic steroids), that are injected into the body in some way or are used to manipulate one's blood for increasing endurance. Externally applied substances or enhancements were considered differently, usually as an aid to improved performance that did not equate with doping. Even if they had never seen the list of banned substances, most fell back on the rules as their reasoning for what was good/healthy or bad/unhealthy. As such, any substance not identified banned was considered fair for athletes to use at their discretion, as were any substances for which an athlete had received a therapeutic use exemption for the treatment of an illness or injury.

Some interviewees, such as Sam, were forthcoming about their ignorance of the rules as they relate to their own training:

On our level, the competitive athlete level, I'm not that cognizant of all the rules and drugs. I take caffeine, alcohol, and Advil. I'm pretty sure I'm not in violation, but I don't know. If a doctor prescribed eye drops and that's a steroid am I in violation? I don't know.

Sam also noted that he worried about the negative health impacts of some of his habits and did his best to avoid anything he thought presented a risk to his health, including monitoring his intake of the "vices" he described. By making sure he only used legally available products, Sam felt he was likely to be in compliance with the rules. Sam's question about the acceptability of products such as steroidal eye medications was tempered by having a doctor's prescription. In his view, this type of therapeutic use exempted him from being labeled a doper—his goal was not to run better by using a prescribed medication, but to heal an illness.

Coupled with the divided judgments of elite and non-elite runners using PEDs, these views of doping demonstrate the ways non-elite runners maintain a coherent self-narrative of healthy and moral citizenship. Non-elite runners monitor themselves to ensure they do not dope by avoiding injected drugs or blood manipulation. Any injected or otherwise questionable substance would only be sourced from a doctor or used only in extreme cases that could be justified as therapeutic. While elite athletes may seek prizes and victories in immoral or unethical ways, non-elite runners and those they associate with are not seeking such outcomes. As a result, health, as opposed to ethics or morality, is the main concern. As long as non-elite runners remain vigilant about not transgressing the clearest boundaries between doping and therapy, they may remain good and healthy citizens.

All of the interviewees viewed doping as unhealthy or harmful to health. The perception of health risks was present even when the interviewee could not identify what the possible negative health outcomes would be of using such substances. For example, 32-year-old runner Kim states:

There are really bad side effects to using, like the reason those things are illegal are because there are horrible side effects, like if you use steroids for a long time they have horrible side effects ... if everyone took anabolic steroids, what kind of health problems would we have?

Kim was unable to specifically identify the “horrible side effects” of the anabolic steroids she named. She acknowledged she found some anti-doping rules “somewhat arbitrary,” yet clung to the idea that banned substances present a health risk because that was a basis for their prohibition. Other interviewees also expressed concerns about negative health impacts, but were similarly unable to describe what those impacts might entail. The designation of banned or not banned was the key element of the interviewee’s self-surveillance, not whether a substance presents an objectively negative health risk. Rather, making sure they are vigilant in using substances or products that were not widely viewed as linked to doping was considered important.

Carrie, the ultra-marathon runner, lamented what she sees as a lack of information about doping that prevented her from self-surveilling: “They should give us information or a link would be nice...It’s hard to follow rules when you don’t know what they are.” The list of prohibited substances is available on the WADA homepage, and includes links to the rules in the waiver that non-elite runners must agree to when registering for a NYRR race online. However, only two of the interviewees had ever read the prohibited substances list, and none of the runners reported clicking on the link to read the regulations when registering for a race. German, a former semi-professional baseball player and attorney, admitted: “You know, I never read that thing all the way through. I just assumed that I was signing up to run a fair race and I know I’ll run a fair race.” German’s view of a fair race is based on self-surveillance: his individual decision not to any of the few substances or methods he identified as doping.

As far as these runners understand the rules and risks of banned substances, they do ensure they avoid their use. However, their own interpretation of what is or is not doping is often based on incomplete or incorrect information from other runners, the running media, or others within the running community they view as an expert. So, while these non-elite athletes are self-surveilling, the lack of accurate information leads to many false perceptions amongst runners who think they are acting in the best possible way, while they are actually at risk of unforeseen hazards, such as those presented by legal nutritional supplements.

### *Supplementing*

Most interviewees reflected official elite anti-doping discourses that prohibited substances are dangerous and a form of cheating. Drawing on the cases of elites who have failed anti-doping tests to determine what substances must be avoided, non-elite runners turned the anti-doping gaze inward and engaged in self-surveillance of their own practices. The interviewees monitored their substance use to ensure they stayed

within the normative and legal bounds of their sport as far as they understood them. These runners did, however, continue to seek assistance with performance and recovery in the form of nutritional and dietary supplements and OTC medications. Most assumed these products posed no or very little threat to their health due to their wide availability, and few questioned whether or not such products contained substances that could lead to competition bans for elite athletes.

Though non-elite runners agreed on the negative health impacts of doping agents and methods they described, they largely abandoned these fears when discussion turned to supplements. Each of the runners interviewed here, save one, acknowledged they indeed seek performance enhancement when taking supplements. Henry noted:

When I first started running I tried everything off the shelves to see if they had any effect in performance enhancement or muscle or how much mileage I could handle, anything I read about I would just try it.

Henry is accustomed to tracking his health and performance, as a runner who closely monitors his weekly mileage, pace, recovery, and nutrition when training. Seeking a performance benefit from supplements is a logical step in his view, as he relies on what he understands as expert recommendations for these products. Henry made his decisions on what to try based on the availability of supplements in retail stores, which he assumes signifies limited risks to his health, health risk, or information found through running websites and magazines commonly read by local runners, which are the main sources of running-specific expertise. Henry believes he is acting as a healthy and ethical runner by only using products legally available in retail stores and those recommended by fellow runners, who he assumes share his interest in legal performance enhancement.

Carrie, an ultra-marathoner and health professional, also based her regard for the safety of a product on the context of information presented about it in the popular running media. Carrie reflects that she doesn't worry about what she is taking because "I know that what I'm doing is legal and from GNC and in *Runner's World* magazine." Carrie assumes the products she sees advertised in *Runner's World* magazine or sold at the supplement retail chain GNC do not present any risk to her health and may benefit her performance in some way. Carrie also noted that she gets a lot of advice and ideas about recovery supplements and fueling from other runners at races and in her local training group. By relying on recommendations or advice from sources she feels are trustworthy, both Carrie and Henry are engaging in another form of self-surveillance. They consciously avoid what they view as untrustworthy sources of information from runners whose performances they question or advertisements that appear to offer too much benefit from one product, and focus their supplementation decisions on advice from those in whom they have confidence. These views and habits are not uncommon for athletes and the runners in the present study. Save one interviewee, each reported using a minimum of two nutritional supplements in their training regimes.

The willingness to try a variety of substances found within a running context did not automatically remove all perceived risk of such use and forced some to question how well these products stayed within normative bounds of acceptable training. Brian, a former multi-sport athlete, described his history of supplementation experiments based on community knowledge in search of performance benefits.

I was sponsored by [supplement company] and I take their stuff ... At expos you try things ... hornet vomit ... Over the years it's [personal usage] toned down to multi, vitamin C, and fish oil, and I don't take that consistently ... I mean, supplements are basically thrown together, but it's hardly whole food ... Who knows what it is?

Like the other interviewees, Brian, Carrie and Henry were each careful to monitor which products they used as well as the effects supplements had on their training and sense of health. All were open to trying products or sources recommended to them for performance enhancement, but most reported abandoning some products in favor of others if they did not receive some sort of benefit. This constant process of self-surveillance to determine how their bodies respond to different products and adjusting their use accordingly demonstrates how these runners have accepted the individual responsibility for health required for neoliberal citizenship.

Brian raises the question about the contents and safety of many supplements. While he does continue to use supplements, he acknowledges the lack of institutional regulation over the contents of supplements is a concern as the FDA does not regulate them in the way it does with food or medications. Like Henry and Carrie, Brian's use of supplements is further normalized by the amount of products he is surrounded by at sports expos he attends, in stores, in the media he consumes and supplied by his sponsors. Their ubiquity works to normalize these substances within the running community to lessen perceptions of any risks they might produce. As a result, Brian largely takes the safety of these products for granted despite his own critique of the lack of information and regulation of their contents.

The interviewees indicated a presumption that someone, such as a regulating agency or the publication in which products were advertised, had vetted these products for both compliance with regulations and for their long-term safety. At the very least, these non-elite runners relied on the experiences of fellow runners to determine the safety and effectiveness of these supplements. Many believe they are taking the proper steps by making sure to avoid what they understand to be doping, which they uniformly viewed as having no positive health benefits, at the expense of other products that may provide a performance boost. This finding is especially troubling, as other research has demonstrated the "dubious value" (Pipe and Ayotte 2002) of many such products.

It may seem inconsistent that runners who routinely surveill their bodies, performances, and health in relation to training and nutrition decisions are not more suspicious of supplements. However, examining the ways non-elite runners view PEDs in road running and how they understand what constitutes doping demonstrate that the rules and regulations applicable to elite athletes fall into the blind spot of their routines of self-surveillance. The health risks of legal supplements are also obscured, as most non-elite runners assume these products are well regulated for safety and therefore can be used without much concern for negative short- or long-term health effects. Further gaps between what runners know and think they know about doping and supplements shape their attitudes to doping regulations and who uses or is affected by banned substances.

## Conclusion

One of the main goals of WADA and its affiliates is to protect the health of athletes through extensive anti-doping surveillance systems. These agencies have the power to develop and enforce rules, codes and lists to determine the bounds of acceptability of various substances within sport and produce "the truth" about the merits or harms of both these substances and the individual athlete. "Clean" athletes who do not use any banned substances are proved to be such by passing biological tests. These athletes represent an idealized norm for contemporary sport, while athletes found to use a banned substance are constructed as pathological. However, these processes of biological testing only apply to elite athletes, with various substances grouped into healthy/unhealthy, fair/unfair, allowed/prohibited categories. The anti-doping gaze works to divide athletes into the discursively constructed categories of good and bad based on the detection of banned substances. The good athlete is normalized while the bad are pathologized. This form of social sorting disciplines runners as a group (Foucault 1990). Rather than focusing on the individual, experts, including fellow runners, the running media and bodies such as WADA, dispense advice on how to be a better runner, a healthier individual and a good citizen (Rose 1999). These pronouncements are

disseminated to non-elite runners through various channels that reinforce prevailing anti-doping discourses.

Neoliberal citizenship requires the constant monitoring of one's lifestyle choices to maximize health potential and minimize risk. In accordance with Rose (1999), non-elite runners routinely engage in self-surveillance, monitoring accrued mileage, effort, recovery, fueling needs, and cross training to determine how their bodies and performances respond to their training decisions. Self-surveillance extends to decisions regarding which substances and products to use and which to avoid. Though exempt from anti-doping tests, as stakeholders in their sport non-elite runners internalize the anti-doping gaze and undertake self-surveillance to monitor conformity with the clean ideal. Responsibilized health demands of neoliberal citizenship mean that non-elite runners follow the advice of those they perceive as experts for how to be a "good" and "healthy" citizen.

However, the existence of multiple experts whose advice can conflict with, and at times contradict, one another may alter the self-surveilling gaze to influence the decisions of any individual runner. Beyond understanding doping as bad, risky for health, and to be avoided, non-elite runners have very limited knowledge of the range of substances that are banned and the potential harms non-banned substances may present. The interviewees' knowledge of all but the most commonly reported doping agents and methods was inadequate to determine whether they were within the rules of the sport. More troubling was the interviewees' assumptions that commonly used and widely available OTC medications and nutritional supplements were safe and posed no short- or long-term threat to their health. Many used such products to improve their running performance, yet their risk was normalized or neutralized by their presence at running expos, in running publications and at vitamin retail stores. Well aware that some substances—EPO, anabolic steroids, HGH—are banned and may be dangerous to health, these runners took for granted the surveillance and safety of products they could procure legally, under the belief that if something was not banned it would be safe. This belief makes runners vulnerable to tainted or dangerous products that are freely available and not considered harmful, even though non-elite athletes routinely feel they make correct decisions and engaging in adequate self-surveillance that is required in contemporary neoliberal citizenship (Rose 1999). As such, a product recommended as an effective and legal substance by another runner or by a retail sales clerk may contain substances that are either banned by agencies such as WADA and/or may pose a serious health risk. The recent controversy over the supplement ingredient DMAA illustrates availability cannot be substituted for safety.

Together, these perceptions and knowledge gaps result in a blind spot in the internalized anti-doping gaze. Runners do the work of self-surveillance believing they are acting as good citizens by conforming to anti-doping regulations and following expert advice on how to be healthy, as far as they understand these rules and recommendations. With regard to nutritional supplements, this self-surveillance blind spot can have major negative health repercussions. WADA and its affiliates claim athlete health is a top priority, yet its policies and methods confuse non-elite runners and lull them into a false sense of security. The non-elites in this research engaged in self-surveillance and did seek to conform to the clean ideal by avoiding what they understood to be prohibited or dangerous substances. However, their knowledge of anti-doping regulations was inadequate for avoiding all but the most commonly discussed prohibited enhancement products. Relying on their incomplete and often incorrect understandings of which substances are potentially harmful, these runners may wrongly presume they are avoiding harmful PEDs by focusing their attention on supplements that are commonly found in drug stores and nutritional supplement shops. This finding demonstrates how the quest to eradicate doping in sports using the surveillance-based system of regulations and banned substances seem to work against the underlying goals of anti-doping agencies in non-elite sports populations.



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## References

- Albert, E. 1999. Dealing with danger: The normalization of risk in cycling. *International Review for the Sociology of Sport* 34:157-171.
- Baume, N., L. Hellemans and M. Saugy. 2007. Guide to Over-the-Counter Sports Supplements for Athletes. *International Sport Medicine Journal* 8(1):2-10.
- Cohen, P. 2009. American roulette—contaminated dietary supplements. *New England Journal of Medicine* 361(16):1523-25.
- Dean, M. 1998. Risk, Calculable and Incalculable. *Soziale Welt* 49 (H1): 25-42.
- Deleuze, G. 1988. *Foucault*. Translated by Sean Hand. Minneapolis: University of Minnesota Press.
- Entwistle, J. 2000. *The Fashioned Body*. Malden: Polity Press.
- Foucault, M. 1979. *Discipline and punish: The birth of the prison*. London: Penguin.
- Foucault, M. 1990. *The History of Sexuality: An Introduction*. New York: Random House.
- Foucault, M. 2007. *Security, Territory, Population*. New York: Palgrave Macmillan.
- Grosz, E. 1994. *Volatile Bodies*. Bloomington: Indiana University Press.
- Hamilton, M. 2013. Marathoners' Death Highlights Risk of Some Supplements. *Runner's World*. February 11. Accessed April 2, 2013. <http://www.runnersworld.com/nutrition-runners/marathoners-death-highlights-health-risk-some-supplements>
- Harel, Z., S. Harel, R. Wald, M. Mamdani and C.M. Bell. 2013. The Frequency and Characteristics of Dietary Supplement Recalls in the United States. *JAMA Internal Medicine*:1-3. Accessed April 15, 2013. doi:10.1001/jamainternmed.2013.379.
- Houlihan, B. 2003. *Dying to Win*. 2nd Edition. Strasbourg, Germany: Council of Europe Publishing.
- Lang, M. 2010. Surveillance and conformity in competitive youth swimming. *Sport, Education and Society* 15:19-37.
- Laure P. 1997. Epidemiologic approach of doping in sport. *Journal of Sports Medicine and Physical Fitness* 37:218-224.
- Lentillon-Kaestner, V. and F. Ohl. 2011. Can we measure accurately the prevalence of doping? *Scandinavian Journal of Medicine and Science in Sports* 21:132-142. Accessed February 13, 2013. doi: 10.1111/j.1600-0838.2010.01199.x.
- Maughan, R.J., P.L. Greenhaff and P. Hespel. 2011. Dietary Supplements for Athletes: Emerging Trends and Recurring Themes. *Journal of Sports Sciences* 29(1):57-66.
- Mazanov, J. and V. McDermott. 2009. The Case for a Social Science of Drugs in Sport. *Sport in Society* 12: 276-295.
- Monti, D. 2006. Road Race Directors Discuss Anti Doping Strategies. *Race Results Weekly*, October 12.
- NIH. 2007. Dietary Supplements. Accessed April 30 2009. <http://dietarysupplements.info.nih.gov/factsheets/dietarysupplements.asp>.
- Pipe, A. and C. Ayotte. 2002. Nutritional Supplements and Doping. *Clinical Journal of Sport Medicine* 12:245-249.
- Rail, G. and J. Harvey. 1995. Body at work: Michel Foucault and the sociology of sport. *Sociology of Sport Journal* 12:164-179.
- Rose, N. 1999 *Powers of Freedom: reframing political thought*. Cambridge: Cambridge University Press.
- Shogan, D.A. 1999. *The making of high-performance athletes: Discipline, diversity and ethics*. Toronto: University of Toronto Press Inc.
- Schensul, J.J., S.L. Schensul and M.D. LeCompte. 1999. *Essential Ethnographic Methods*. New York: Rowman & Littlefield.
- Semaan, S., J. Lauby and J. Liebman. 2002. Street and Network Sampling in Evaluation Studies of HIV Risk-Reduction Interventions. *AIDS Reviews* 4(4):213-223.
- Suzic Lazic, J., N. Dikic, N. Radivojevic, S. Mazic, D. Radovanovic, N. Mitrovic, M. Lazic, S. Zivanic and S. Suzic. 2011. Dietary Supplements and Medications in Elite Sport – Polypharmacy or Real Need? *Scandinavian Journal of Medicine and Science in Sports* 21:260-267.
- Waddington, I. 2000. *Sport, Health and Drugs: A Critical Sociological Perspective*. London: Taylor & Francis.
- World Anti-Doping Agency (WADA). 2009. World Anti-Doping Code. Accessed April 20, 2012. <http://www.wada-ama.org/en/World-Anti-Doping-Program/Sports-and-Anti-Doping-Organizations/The-Code/>
- World Anti-Doping Agency (WADA). 2012. List of Prohibited Substances and Methods. Accessed April 20, 2012. <http://www.wada-ama.org/en/World-Anti-Doping-Program/Sports-and-Anti-Doping-Organizations/International-Standards/Prohibited-List/>
- Zorzoli, M. 2011. The Athlete Biological Passport from the perspective of an anti-doping organization. *Clinical Chemistry & Laboratory Medicine* 49(9): 1423-25.