



Discussion paper

Uneven accountability in anti-doping

The role of socio-economic and political factors unobserved in the current system

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Introduction

The creation of the World Anti-doping Agency (WADA) has contributed to the effective harmonization of the anti-doping regulation over the past 22 years through the establishment of the World Anti-Doping Code (WADC).

The WADC foresees sanctions for athletes, athletes support personnel and sport officials for different types of anti-doping rule violations (ADRVs). When it comes to the athletes, the system is clear, athletes bear the responsibility for what enters their body.

A second pillar of the WADC sanctioning system aims at the suspension of Code Signatories for non-compliance. Through the WADC and the UNESCO Anti-Doping Convention, states are committed to combating doping by establishing and funding their own National Anti-Doping Organization (NADO) which designs and conducts a national anti-doping program. For their failure to conduct a robust anti-doping program, NADOs can be sanctioned under the WADC.

The WADC has been central in the implementation of prevention policies, but particularly in the standardized sanctioning of those who commit Anti-doping Rule Violations (ADRVs). In the presence of a prohibited substance, the system is clear and follows a strict-liability approach towards athletes. Code Signatories, mainly National Anti-Doping Organizations (NADOs) and International Federations (IFs), are an essential part of the anti-doping system and apply this principle. iNADO is an international association of NADOs, and therefore we will focus on the responsibilities of NADOs and not of IFs under the WADC in this document.

This harmonization process has undoubtedly made significant progress, partly due to the progressive increase in resources allocated to anti-doping, more research and cooperation in both prevention and testing, etc. However, the succession of doping scandals in sport involving corrupt governments and sport officials (Ruiz, 2016; Lawton, 2021), and the inability of sport organizations and governments (Pound, 2020; Harris, Dowling & Houlihan, 2021) to prevent them, suggest that anti-doping efforts will not be successful in the long-term if we don't consider sufficiently the influence of factors outside anti-doping policies, i.e., factors within the national environmental context (environmental factors).

Consequently, in countries with weakened governments and conflicted sport institutions, establishing effective anti-doping policies is more difficult, and in this ecosystem, athletes face a larger risk of doping. Therefore, it seems essential to propose all stakeholders in anti-doping to reflect on the influence of such systemic factors at the national level on anti-doping policies. This will facilitate the acknowledgement that neither athletes nor NADOs, have the responsibility for such factors and

therefore, the current anti-doping system lacks a major piece: a way to give States a proportionate share of the responsibility for the success of anti-doping efforts.

In this discussion paper, we propose to think about the effect that systemic factors in different countries have on the incidence of doping. The systemic factors that influence the scale of the doping problem and which we propose to analyze are the country's performances in: democracy, corruption, and human development. For this purpose we will use recognized international indicators. Additionally, we will include two factors from the country's sporting system that are related to the system in which athletes train and live but lie outside the scope of current doping policies and could influence doping decisions: the separation between sport and government, and the existence of professional opportunities for athletes beyond their athletic career.

We provide comparable data to demonstrate that in scenarios of mature democracies, lower levels of corruption, higher human development index, independent NOCs, and sufficient professional opportunities for athletes, countries have a lower incidence of doping.

The current anti-doping system is incomplete

The WADC and the UNESCO Convention against Doping in Sport have been the cornerstones of a normative regime to fight the use of enhancing substances and methods in sport (Houlihan, 2009).

The wording of the current WADC is clear from its second article: "Athletes or other Persons shall be responsible for knowing what constitutes an anti-doping rule violation and the substances and methods which have been included on the Prohibited List". The regime and its sanctions developed by sport's governing bodies describe a system that does not widely address the collective responsibility around the scourge of doping, but targets mainly individuals. As Steetzel (2005) affirms, the sport community does not share the responsibility but places it entirely on the athlete.

The responsibility of society on doping remains underdetermined, as it is understood as a problem of the sports world alone (Starke and Flemming, 2017). For this reason, the possible causes of the use of prohibited substances have been studied only in the sports field without considering socioeconomic, cultural and political roots. In the past IOC and WADA's policies have been criticized, as they fail to contemplate the social, political and ethical particularities of the different communities from which athletes come and organizations operate (Tamburrini, 2006).

Environmental factors largely not considered in the anti-doping system

The use of performance-enhancing drugs remains traditionally associated with an athlete's negligence or desire to win by the least virtuous means. Clearly, athletes are human beings living not isolated

from their environment: adverse economic and social conditions can influence prohibited substance use by athletes. The same happens with corrupt or authoritarian governments.

The confluence of socio-economic and political factors as well as the maturity of the national sporting system play a key role in the effectiveness of anti-doping policies. This role has not been considered by anti-doping organizations in the design of their policies.

We have identified some (and certainly not all) of the factors that may influence doping and which current policies only partially, or do not at all, address. Following factors limit the ability of athletes to make educated and independent decisions towards doping:

Level of democracy

Tamburrini (2006) warns that political pressure can encourage the decision to engage with enhancing substances and methods. He illustrates this risk with examples of authoritarian regimes, in which sports achievements are required from athletes as compensation for the benefits they have been granted by the State. Doping may constitute a shortcut to offering such compensation.

It seems to be the time to explore democratic processes outside of sport as a factor that promotes doping in sport.

Corruption in the country

Corruption in government agencies can permeate into sports organizations, as many of them do not have sufficient autonomy to face corruption schemes extended by the most powerful bodies. Corrupt contexts promote the deviant behavior of individuals and organizations operating in such a context. Glaeser et al. (1996) assert that crime has serious contagion effects, such that individuals are more likely to engage in deviant behaviors if the people around them behave unethically. We do not intend to equate doping, which is not a crime, with institutional corruption. What is true is that doping is against the rules of sport and, in that context, can be considered misconduct. If the actors in that environment tend to violate the rules, this attitude can become generalized. This is especially true when the offenses against the rules come from the authorities. Dimant and Deutscher (2015) agree that several cases show that the widespread institutional corruption in anti-doping organizations is also encouraging the proliferation of individual doping.

Human development

Doping is documented as a multifactorial phenomenon. For instance, in poor countries, one of the factors that may have a significant impact on the prevalence of doping is the economic conditions. Performance-enhancing substances can be a shortcut to sporting success that lifts them out of **poverty**. Pielke and Boye (2019) agree that “a small improvement in performance might be the

difference between victory and defeat, between fame and obscurity, between fortune and poverty”. The difficult socio-economic context of many countries, coupled with the growing commercialization of sport can be a breeding ground for athletes to take the easier but less virtuous path.

Lack of access to **education**, which is closely related to poverty, is another dimension that some scholars have taken into account when analyzing the incidence of doping. The systemic difficulties faced by children, potential athletes, in accessing quality educational systems reduce their capacities to make informed decisions once they are teenagers and even adults. The attitude towards doping is partly determined by failures to understand the health risks involved in engaging in the use of performance-enhancing substances, and lack of information and experience to make educated judgements about doping.

Conflicts of interest in the national sport system

Other elements point to a collective, instead of individual, responsibility for the presence of doping. It is also widely accepted in the literature that sport has historically been used as a tool by national governments to increase their international influence and to further their political interests. The pressure exerted on athletes to win medals by some government elites can sometimes be oppressive. This tendency of national governments to use sport as a tool for political gain is materialized for instance in the intervention of national authorities in the governance of sports organizations (Lin, Lee & Nai, 2008) that should operate under schemes of institutional independence.

Limited alternative career opportunities

It can be argued, analogous to low education levels, that athletes with no clear career alternatives, will have more problems making autonomous decisions and are more prone to dope. We suggest this factor should be taken into account.

Analysis

The combination of poor performances of countries in indicators related to democracy, corruption prevention, human development, lack of independence of sporting governing bodies and limited opportunities for athletes can be a breeding ground for an increased appearance of doping.

To test the hypothesis that indicators related to the socio-economic conditions and other aspects of the national sporting system correlate with doping, a selection of these indices in ten (10) countries will be contrasted with the figures reflected in the 2019 WADA Anti-Doping Rule Violations Report. This net number of ADRVs is adjusted for the size of the national teams that participated in Tokyo 2020, as this will allow to compare the occurrence of doping concerning the total population of elite athletes in each country. We intend to demonstrate that there is a correlation between

disadvantageous socio-economic conditions, political conditions, and a sport system vulnerable to manipulation, with a higher number of anti-doping rule violations.

Indicators chosen

To account for the above-mentioned factors, we have selected three established socio-economic indicators and two indicators related to the sporting system of the country.

Human Development Index (HDI): according to the United Nations Development Programme (2021) the HDI summarizes achievement in three crucial dimensions of human development: 1) a long and healthy life, as measured by life expectancy at birth; 2) being knowledgeable, as measured by mean years of schooling and expected years of schooling, and 3) have a decent standard of living, as measured by gross national income per capita. This is expressed as a value between 0 and 1. The higher a country's human development, the higher its HDI value.

Democracy: the Economist Democracy Index 2019 (Economist Intelligence Unit, 2020) provides a snapshot of the state of democracy worldwide in 165 independent states and two territories. It is similar to the HDI, but mainly concerned with political institutions and freedoms. The index is based on 60 indicators grouped in five different categories, measuring pluralism, civil liberties and political culture. In addition to a numeric score from 1 to 10 and a global ranking, the index categorizes each country into one of four regime types: full democracies, flawed democracies, hybrid regimes and authoritarian regimes.

Corruption: the Corruption Perceptions Index 2019 (Transparency International, 2020) measures how corrupt each country's public sector is perceived to be, according to experts and businesspeople. Each country's score is a combination of at least 3 data sources drawn from 13 different corruption surveys and assessments. A country's score is the perceived level of public sector corruption on a scale of 0-100, where 0 means highly corrupt and 100 means very clean. The data sources used to compile the CPI specifically cover the following manifestations of public sector corruption: bribery, diversion of public funds, ability of governments to contain corruption in the public sector, legal protection for people who report cases of bribery and corruption, access to information on public affairs/government activities, to name a few.

Additionally, we have selected one indicator to measure the career opportunities for athletes beyond their sporting career and another indicator to map the conflict of interest of sport with political influence.

Separation of sport from political influence: This is measured as the absence of current or former government officials in leadership positions of the National Olympic Committee (NOC).

Career opportunities for athletes beyond their sporting career: This is measured by the existence of a dual career system for athletes, in which elite athletes systematically receive support with academic, professional or vocational education and orientation for a life beyond sport.

Countries chosen

The selection of countries responded to geographic diversity (representation of all Associations of National Olympic Committees), significant number of ADRV cases (7 out of 10 countries included in this study are part of the top countries with the most ADRV cases in 2019), differences in their socioeconomic indicators (diversity of countries allows us to contrast their socio-economic realities and thus verify that such factors have some relevance when analyzing the scourge of doping). Far from seeking to stigmatize a certain population of athletes or to associate nationalities to the practice of doping, the aim is to explore factors that influence the tendency to resort to enhancing substances.

Results

The table 1 presents a summary of the contrast between the number of ADRV cases, and the socioeconomic indicators listed above. For practical and visual purposes, the most relevant indicators have been highlighted according to each country's performance. While green is an indicator of good performance, yellow and red mean fair and worrying respectively.

The third column lists a ratio of the number of athletes qualified for the 2020 Olympic Games for each ADRV. Although this does not necessarily account for the prevalence of doping in each country, it does provide an approximation of the number of athletes doping according to the size of the national team, the efforts devoted to getting athletes to the Olympics and athletes' performance. Although we recognize the obvious problems of only considering the ADRVs reflected in the WADA reports, in the available literature there are no undisputed strategies for defining the prevalence of doping. Much less one that estimates doping incidence according to the country of athlete's nationality.

The WADA Group on Doping Prevalence has admitted that establishing doping prevalence for specific countries could be a major step forward in efforts to design effective anti-doping policies. Determining which countries have a higher doping prevalence can assist in prevention and detection practices (Gleaves et al., 2021). This is compatible with our initial idea that socioeconomic conditions may be determinant in the occurrence of anti-doping rule violations.

Country	Anti-doping rule violations 2019 (ranking)	# Athletes Tokyo 2020 (ranking)	Ratio: No. of athletes qualified for Tokyo 2020 for each ADRV	Democracy Score 2019 (ranking) 1-10	Corruption Score 2019 (ranking) 1-100	Human Development Index 2019 (ranking) 0-1	NOC's autonomy	Dual Career for Athlete
New Zealand ¹	36 (15)	213 (15)	5.916	9.26 (4)	87 (1)	0.931 (14)	Autonomous	Yes
United States ²	62 (7)	613 (1)	9.887	7.96 (25)	69 (23)	0.926 (17)	Autonomous	Yes
Italy ³	157 (2)	381 (8)	2.426	7.52 (35)	53 (51)	0.892 (29)	Autonomous	Yes
Brazil ⁴	78 (4)	302 (12)	3.871	6.92 (49)	35 (106)	0.765 (84)	Autonomous	Only partially
India ⁵	152 (3)	126 (24)	0.828	6.90 (51)	41 (80)	0.645 (131)	Autonomous	No
Kazakhstan ⁶	49 (8)	93 (33)	1.897	2.94 (139)	34 (113)	0.825 (51)	Autonomous	No
Russia ⁷	167 (1)	335 (10)	2.005	3.11 (134)	28 (137)	0.824 (52)	Not autonomous	Yes
China ⁸	45 (11)	406 (5)	9.022	2.27 (151)	41 (80)	0.761 (85)	Not autonomous	Yes
Kenya ⁹	30 (17)	85 (37)	2.833	5.18 (94)	28 (137)	0.601 (143)	Autonomous	No
Iran ¹⁰	70 (5)	65 (43)	0.928	2.26 (153)	26 (146)	0.883 (70)	Not autonomous	No

Table 1

Sources: List of references at the endnotes

To categorize the performance of the countries in each of the categories, in the case of the ratio of athletes qualified to Tokyo to the number of ADRV cases, on a scale of 0 to 10, three categories were established: from 0 to 3.33 (poor performance), from 3.33 (medium performance) to 6.66 and from 6.66 to 9.99 (good performance). The same was applied to the assessment of the quality of democracy. To categorize the perception of corruption, the same procedure was followed on a scale from 0 to 100. The HDI was categorized according to the criteria developed by the UNDP to define which countries have achieved very high, high and medium human development.

After analyzing the comparable data, two patterns can be identified which reinforce our hypothesis: the countries with the highest levels of socio-economic indicators, have low levels of ADRVs per athlete qualified for Tokyo 2020 and countries with rather poor socio-economic indicators, tend to show a high number of ADRVs.

We also identified two countries that broadly do not fit this model. China, which despite having an authoritarian state, an average perception of corruption and medium human development indices, its ADRV figures are good considering the size of its national teams in the Olympic Games. Italy in turn presents advanced levels of development, a democracy that is appreciated for its quality, and a perception of corruption that is average. Even so, Italy was second in the number of athletes who violated the code (157) and qualified only slightly more than 2 athletes per ADRV. It will be for further research to analyze the particular cases of these two countries. This involves examining whether it is due to flaws or virtues of their doping system, attitudes towards doping in their athlete population, the practice of specific sports more or less prone to doping, just to name a few.

For now, we can assert that doping does correlate with socio-economic factors that include the democratic development, corruption of public institutions, and low human development of a given country. In contrast, the relationship between the independence of the NOC (from government), and the existence of a dual career program for athletes is less direct.

Limitations of the results

Although the sample of countries is intended to be as representative as possible, the complexity of socio-economic factors demands that this be further analyzed. Exploring how these factors correlate in the rest of the world may shed new light on the problem under discussion

The correlation that we explain in the results does not respond to mathematical computations, only to a categorization developed by iNADO according to what we consider to be good performance in the different areas. In essence, it is a comparative analysis that attempts to respond to the categories already developed by The Economist, Transparency International and UNDP.

Similarly, the research on the levels of autonomy of sports organizations and dual career programs was conducted based on a compilation of different bibliographic sources, which can be differentiated in terms of years. For the countries analyzed in this research, a detailed and comparable assessment was not possible due to the information regarding the governance of sports organizations, particularly NOCs, being publicly unavailable.

Taking the number of ADRVs as a reference to measure the effectiveness of anti-doping programs can be somewhat problematic. A high rate of ADRVs may speak well of its testing and prosecution system but poorly, for instance, of its educational programs. Conversely, a drop in ADRV cases could mean that educational programs are proving very effective among the athlete population, or alternatively that substance detection methods are failing in the face of innovative doping strategies. In any case, we believe that the best interpretation of the problem is that a high number of ADRVs reflects a lack of effectiveness of anti-doping programs.

Discussion

Despite the limitations in the amount of data collected and its computation, the results shown above reveal that there is a correlation between weak democratic development, corruption, and low human development. It cannot be ruled out that limited career opportunities for athletes and a lack of independence within a NOC can explain ADRVs in one specific country but further data is necessary to investigate this relationship.

The regression of democracies in countries such as Russia, Iran, Kazakhstan (Economist Intelligence Unit, 2020) may come with an excessive pressure on athletes to win medals to reinforce national identity and state power. While this does not necessarily translate into systematic doping programs, it can put additional pressure on athletes to win at any cost, including via doping. In the future, this may represent a threat in countries that although are considered democratic, nationalism and authoritarianism have regained ground.

Our analysis reinforces the idea that low and medium human development indices translate into concrete situations of athletes who resort to doping as an escape mechanism from poverty. The most extreme cases are Kenya (Wilber & Pitsiladis, 2012; Ogama et al., 2019) and India (Byerly, 2014).

The economic difficulties to which the athletes are hostage to are an unattended task of the States but reducing poverty and increasing education levels in developing countries is a major challenge. As a short-term solution, the implementation or expansion of dual-career programs for athletes may be helpful. This would represent one less incentive for athletes to engage in doping for social and economic benefits.

Lastly, NADOs are intrinsically intertwined with the conditions (primarily institutional structure and funding of the country where they operate). Depending on the country, NADOs can operate with more or less operational independence and more or less resources to develop and implement an effective national anti-doping program. A good structural base and an adequate level of funding is certainly a good basis for an effective anti-doping program. Nevertheless, NADOs will face increasing difficulties to implement this with poor socio-economic and political conditions and when the sport system is conflicted.

Recommendations to improve the compliance mechanism of the current system

The WADC does not consider proportionate sanctions if athletes faced disadvantageous socio-economic and development conditions, scarce professional opportunities, pressure from governments to achieve medals, or failure from sports organizations at the national level to protect the integrity of sport.

Until 2017 with the beginning of the 2021 WADC drafting process, no collective sanctioning mechanism had been envisaged in the Code to extend responsibilities beyond the athletes and their entourage. WADA implemented a compliance policy that requires signatories to comply with the WADC and empowers WADA to sanction non-compliance (Harris et al., 2021). Nevertheless, the current anti-doping system largely ignores the influence of these factors which neither athletes nor NADOs can influence on their own.

Changing adverse socio-economic and political conditions to improve the living conditions of their citizens is a task of the State, not the NADO. Therefore, we can conclude that governments (as the main figure of the State) are escaping their share of the responsibility in the current system. The full recognition of this fact will lead to a more effective system.

The current system is primarily framed by the WADC but it is not the only mechanism to monitor and sanction compliance. The UNESCO Anti-Doping Convention is the only global supra-governmental body that monitors the responsibilities of state parties to combat doping. UNESCO is an organization of public international law. However, it is unclear if it can meaningfully monitor the commitment of state parties to combat doping and sanction failures to do so. Variability among anti-doping organizations in complying with the WADC has continued to be a major problem (Gray, 2019). Not all countries have responded with the same robustness to the need to effectively implement global anti-doping regulations and programmes. This imbalance among the signatory countries of the Convention is a sign that a more solid systems of binding States to their commitments could be needed.

A concrete solution to this impasse is not suggested here. Certainly, it will not be easy to find and likely, it will involve the recognition by all stakeholders of anti-doping that an important piece is missing to achieve a balanced accountability distribution. That agreement could be followed by coordinating efforts with supra-national authorities to review the compliance system to the signatory states of the UNESCO Anti-Doping Convention.

In the short term, organizations in charge of anti-doping policies must begin to consider factors that transcend sport to better address this scourge. It is essential to thoroughly study the relationship between countries with significant poverty rates, low levels of education, weak governmental structures, corruption and conflicted sporting systems with a higher prevalence of doping.

In this paper, we argued that not only disadvantageous living conditions such as poverty and low education have been factors not considered in the design of anti-doping policies. Corruption and totalitarianism also play a role in the use of prohibited substances in sport. Interventionism and practices that do not adhere to principles of integrity have been observed to a greater extent in sports organizations operating in countries with authoritarian regimes. An important consequence of this realization could be for global Sport Governing Bodies such as International Federations or Major Event Organizers to limit the ostentatious association to government officials incl. heads of state especially in authoritarian regimes, linking the bidding process of their events to human rights but also to good governance criteria of the national sporting bodies (e.g, autonomous NOCs to begin with), and stop offering such regimes a propaganda platform. Although this is not a demand of anti-doping organizations but human rights groups, it is clear that sport organizations have not dealt decisively with authoritarian regimes to protect athletes from all types of threats.

Conclusion

While the anti-doping system under the WADC has evolved and improved in many ways, for instance recent changes in the WADC that seek to monitor its signatories more consequentially for compliance, holding largely athletes and Code Signatories (NADOs) accountable for doping is not sufficient to tackle a large portion of the problem. An important piece in this sanctioning regime is missing.

Consequently, anti-doping policies with the current narrow approach (sanctioning only individuals and measuring NADOs' compliance) are insufficient to maintain public support to anti-doping efforts. It seems urgent to balance the responsibilities for doping more fairly by finally recognizing the effect of socio-economic and political conditions in each country but also by adapting current policies for governments who fail to create, promote or maintain an adequate environment for athletes to participate in sport and for NADOs to do their job.

UNESCO's compliance monitoring system for States Parties only involves the completion of a questionnaire that assesses basic aspects: whether there is anti-doping regulation, whether policies and procedures are in place, whether there is a commitment to international cooperation to address doping, and whether education and training programs have been implemented. All of this is based on the responses of the countries themselves with no concrete control mechanisms. States are declared non-compliant if they do not respond to the questionnaire or if the implementation of the convention falls below a certain benchmark. It is unclear how exactly an improved and more efficient compliance system would look like but in the meantime, this analysis indicates that the mechanisms in place are not sufficient to combat doping effectively as they don't consider adequately the level of influence that environmental factors have in the incidence of doping. The current anti-doping system must evolve to limit their influence and protect clean sport.

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