



Same Tricks, New Name: The IAAF's New 2018 Testosterone Regulation Policy for Female Athletes

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Abstract

On April 26, 2018, the International Association of Athletics Federations (IAAF) released its updated version of its policy on athletes with hyperandrogenism, in a discriminatory attempt to define the term *female* through specified levels of testosterone, and to thereby provide a solution to the problem of athletes who fell outside of their socially constructed gender binary. The IAAF's attempts to uphold this outdated binary system is a reflection of normalized scientific discourse which creates accepted, supposedly normal, behaviors and bodies at the expense of and resulting in the oppression of those who challenge these dominant regimes of knowledge (Foucault, 1978). Certainly, the prioritization of scientific knowledge is nothing new for the intersex community, given the history of irreversible genital surgery on newborns and young children with genitalia that is incongruent with current sex standards to make them fit societal gender ideals (Davis, 2015; Karkazis, 2008). In this paper, I trouble the IAAF's supposed solution to intersex athletes through a Foucauldian understanding of biopower and science-based constructions of knowledge and truths, with particular attention to the perpetuation of health disparities within the intersex community. More specifically, I examine the site and role of female athletes' bodies, such as Caster Semenya, whose rights to equitable and just treatment were cast aside in order to uphold artificially constructed and societally accepted ideas of male and female. I use Semenya's narrative, coupled with the scientific discourse in the IAAF's decision, to explore the subsequent, but unsurprisingly repetitive, reproduction of the hierarchical power relations between governing sports bodies and athletes, especially female athletes.

Keywords: Foucault; gender; intersex; science and policy; testosterone

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“The power of medicine and science lies in their ability to define what is natural, to name nature and human nature, and in their claim or hope to return individuals to a more natural state or way of being.”

—Katrina Karkazis, *Fixing Sex: Intersex, Medical Authority, and Lived Experience*

Introduction

A question that always finds its place on every survey, poll, and “who are you” form: what is your gender? For the majority of the population, this question is easy to answer: the sex we were assigned at birth—male or female. However, for some, this question causes myriad complications as they do not fit cleanly into either category of the sex/gender binary,



with the former (sex) traditionally understood to consist of biological components while the latter (gender) is socially constructed and the expression of characteristics that paint an individual as *masculine* or *feminine* (Krane & Barak, 2012). Considering the exclusionary distinctiveness of these two categories, a person who fails to fit either standard raises questions, such as: “how are individuals who do not cleanly fit into either male or female categories to be labeled?”, “how do bodies that have characteristics of both male and female categories find their place in the world?”, and “how do bodies such as these move through a culture shaped by a reductionist sex/gender binary?”

Although modern institutions and organizations are moving towards greater acceptance of individuals who fall outside of the traditional sex/gender binary (however minute those moves may be), some policies and agencies continue to move backwards towards a more restrictive and outdated sex categorization system. One of these institutions is the International Association of Athletics Federation (IAAF) and its resultant policies, particularly their newest “eligibility regulations for the female classification” (2018b). As the international governing body for the sport of track and field, regulations and rules set forth by this organization pertain to all IAAF-regulated competitions which include, but are not limited to, the World Championships and the Olympics. This new regulation by the IAAF, set to take effect in late March 2019, reflects the notion that modernizing technology, and the acceptance of such technology and underlying scientific hypotheses as fact, continue to act as mechanisms for perpetuating an unjust rhetoric towards intersex individuals. Moreover, the policy itself is unethical, based on unsound data, and is meant as a means of gender policing through the guise of sex testing.

Because it is so new, few scholars have had the chance to unpack the larger implications and underlying intentions of the IAAF in this new policy, nor have they had time to historicize it in terms of the recurrent discrimination against members of the intersex community. Certainly, the wrongful nature of this policy is unsurprising when considering the severe breaches in ethics in the history of sex testing as a means of gender policing in the IAAF and IOC (Henne, 2014) and history of sexist treatment of female athletes (Karkazis, Jordan-Young, Davis, & Camporesi, 2012; Newbould, 2015). Sport historians have also discussed the IAAF’s 2011 “eligibility rules for females with hyperandrogenism,” the 2018 policy’s predecessor, as another domino in a long line of sex testing contributing to the intersection of sexism and gender policing (Pieper, 2016; Schultz, 2011), and the cyclical oppressive measures taken against women athletes in the name of fair play (Schultz, 2012; Wells & Darnell, 2014). Feminist sport sociologists have long critiqued sex testing in sport and its resultant policies as unscrupulously policing the divide between men and women athletes, creating an inaccurate and one-dimensional definition of what it means to be female (Cahn, 2011; Cooky & Dworkin, 2013; Pape, 2017).

In this paper, I examine the IAAF’s newest policy, arguing that the policy’s underlying purpose is to continue to guard the divide between male and female and to regulate athlete’s bodies, especially female athletes’ bodies, furthering inequitable treatment of intersex athletes. I critically explore and de-articulate the discriminatory nature of this policy as a case study that connects to a larger narrative around unfair gender policing of female athletes through the lens of Michel Foucault’s biopower. I use Foucault’s (1978) concept of biopower, which broadly refers to the regulation of bodies to established normative behaviors and practices, to help illuminate the establishment of normalizing and normalized bodies and behaviors. I look to question how knowledge and beliefs around what is male and what is female are created and enforced at the expense of and detriment to the people whose lives fall outside these constructed expectations, and to reveal it as a form of social injustice. Using a Foucauldian perspective brings a new

dimension to information studies as it encourages a conversation about social inclusion and justice by questioning how ideas taken to be universal truths are created, and it suggests how we may challenge those supposed truths to promote equity and co-existence among all individuals on a global level. Foucault himself questioned what should be considered good and bad, and troubled how knowledge was universally accepted.

This paper first discusses intersex broadly before offering a more focused discussion around intersex athletes in sport and sex testing. Next, I discuss the newest 2018 IAAF policy broadly before applying Foucault's theory of biopower to demonstrate the oppressive nature of the policy on female and intersex athletes. I conclude by demonstrating the role that this IAAF policy plays in constructing false truths about male and female bodies, by revealing the unethicity of the 2018 policy, and emphasizing the impossibility of limiting sex to two reductionist categories.

The History of Intersex

Despite the IAAF's modern attempts to categorize male and female athletes, the history of intersex actually dates back to ancient Sumerian literature. The idea of a person being what we call intersex first appears in the story of Enki and Ninmah with Ninmah's creation of six different humans, the last of which is fashioned "with neither penis nor vagina on its body" (Black et al., 2001). Later on, sexual categorization ambiguity appeared in ancient Greek culture with the story of Hermaphroditus in Greek mythology, the son of Hermes and Aphrodite, whose body was merged with a nymph who fell in love with him. It is from the story of Hermaphroditus that the word *hermaphrodite* emerged to denote a person with both widely recognized male and female genitalia, specifically, a penis and a vagina ("Hermaphroditus", 1997). Even today, there are other examples that defy this two-sex system. While this paper does not look to appropriate Native American and indigenous cultures or to render them parallel to Western culture, the history of two-spirit people also defies the constructed nature of the gender/sex binary (Sheppard & Mayo, 2013). Emerging from Native American beliefs that a person's character is reflective of their spirit, two-spirit people are seen as "more spiritually gifted than the typical masculine male or feminine female" (Williams, 2010).

In an academic realm, scholarly and medicinal fascination about the relationship between genitals and sex has engaged modern scholars as well, with significant work describing bodies which have been seen as anomalous (see: Davis, 2015; Karkazis, 2008; Reis, 2009). In their scholarship, the authors describe stories of doctors, and the societies in which they live, treating certain bodies as unnatural, reflecting the frequently implicit belief that there are normal bodies for men and women, with a distinction between them that must be protected and enforced. The unified understanding of normative binary male/female bodies between those in the medical field and their broader societies is not coincidental, considering our modern neoliberal privileging of scientific knowledge and tendency to create such norms. Consequently, this leads to the attempted eradication of non-binary bodies (Reis, 2009), particularly through "laws, rights, responsibilities, and privileges built on notions of discrete and binary gender" (Karkazis, 2008, p. 97; see also Barbin & Foucault, 1980). Medical interventions such as genital reconstructive and cosmetic surgery remain relatively common despite the non-life-threatening nature of many of these intersex conditions (Davis, 2015; Dreger, 1998a, 1998b; Fausto-Sterling, 1993, 2000; Karkazis, 2008; Kessler, 1998). There are cases in which the individual was not told of their intersex condition but rather it was kept from them until they obtained their medical records as an adult and learned the truth (Davis, 2015). Ultimately, the strict maintenance of an impossible binary system of sex and its reinforcement through genital surgery is not only contrary to the

development of the natural body, but it also continues an unceasing line of injustice towards members of the intersex community.

Intersex and Sport

In athletics, the wrongful treatment of intersex athletes has a long history as well, particularly in “outing” female intersex athletes before they even realize they have an intersex condition (Karkazis & Carpenter, 2018). This act of outing athletes has a destructive effect; it has affected athletes over the past century and continues to affect them, ranging from the ending of professional sports careers (e.g. María José Martínez-Patiño) to suicide attempts (e.g. Santhi Soundarajan) to suicide (e.g. Pratima Gaonkar). Most concerning, while there are potentialities for health complications in the intersex conditions of these athletes, they are not life-threatening. Rather, the only thing the conditions threaten is the fiercely protected sex/gender binary.

In international and elite level sport, fears of men competing as women and women not being real women date back to the 1960’s, when women were forced to stand naked and perform “nude parades,” as they walked in front of three female gynecologists, who verified whether or not the athletes were female based on their external genitalia (Cooky & Dworkin, 2013; “Preserving la Difference,” 1966; Schultz, 2011). As sex tests became more modernized, they undertook the name *gender-verification tests*, and moved from nude parades to chromosomal testing through Barr bodies to a polymerase chain reaction test, all under the premise of ensuring fair play between and within the two sexes (Pieper, 2013). In every phase of sex testing, there were always inconsistencies in who tested positive and who tested negative; that is, none of these tests consistently and accurately upheld the separation of the sexes. Instead, results from these tests frequently resulted in a female athlete being falsely accused of being male due to a loophole genetic condition in the current sex test procedure. Following the elimination of mandatory sex testing in 1999 by the IAAF, sex tests and gender-verification examinations occurred only when it was determined that there was substantial evidence to suggest the presence of a non-female athlete. The subjectivity of what may be considered evidence is not unintentional, as two of the most recent and well-known cases of gender-verification tests emerged when athletes appeared “suspiciously masculine” (Padawer, 2016).

The Newest 2018 IAAF Policy

On April 26, 2018, the IAAF announced that they had created a policy regarding “eligibility regulations for female classification” (IAAF, 2018a). This new policy was implemented as a revision, supposedly backed by science, of their 2011 policy (IAAF, 2011), which had been suspended by the Court of Arbitration for Sport for two years due to the fact that the “IAAF [had] not provided sufficient scientific evidence about the quantitative relationship between enhanced testosterone levels and improved athletic performance in hyperandrogenic athletes” (Court of Arbitration for Sport, 2015). That is, the 2015 suspension came after a long fight between Indian sprinter Dutee Chand and the IAAF in response to her significant success in the 100m and 200m sprints, their unscrupulous gender-verification tests, and her reportedly abnormally high levels of testosterone, which disqualified her from competing as a woman. Chand argued that their use of her testosterone levels to disqualify her and the subsequent policy were discriminatory, as its regulations limited naturally occurring testosterone and looked to regulate a natural biological occurrence. She ultimately won her case and was reinstated as a female athlete, leading the IAAF to release their new 2018 policy after an extension for the revised policy was granted in

2017. Their new 2018 policy boasted the support of research by Dr. Pierre-Yves Garnier and Dr. Stéphane Bermon in the previous year and sought to establish a clear connection between testosterone and performance, thus necessitating a need (and policy) to regulate testosterone in female athletes.

This new regulation, released on May 29, 2018, detailed three criteria to determine what constituted a “female athlete” among those who wished to compete in the 400m, 400m hurdles, 800m, 1500m, one-mile race, all other track events over distances between 400m and one mile, or “any other events that the IAAF intended to test for gender verification” (IAAF, 2018b, p. 3):

1. The athlete must be recognized *at law* either as female or as intersex (or equivalent);
2. The athlete must reduce her blood testosterone level to below five (5) nmol/L for a continuous period of at least six months (e.g. by use of hormonal contraceptives); and
3. Thereafter she must maintain her blood testosterone level below five (5) nmol/L continuously (i.e., whether she is in competition or out of competition) for so long as she wishes to maintain eligibility to compete in the female classification in Restricted Events at International Competitions (or to set a World Record in a Restricted Event at a competition that is not an International Competition). IAAF, 2018b, p. 3

The limit of maintaining a blood testosterone level below five nmol/L was a stark change from the original 2011 policy in which blood testosterone was limited to ten nmol/L. While the new policy gave its rationale for this new upper limit in the final “End Notes” section, using testosterone as the singular determinant of sex categorization is inconsistent with medical practices, which use a multitude of markers to do so, such as internal/external genitals, gonads, and chromosomes (Karkazis, 2008; Pieper, 2016). Moreover, several scholars have pointed out irrefutable problems with the research methods, analysis of data, and conclusions drawn from the Bermon and Garnier (2017) study, thus invalidating the study, and calling into question the ethicality of the new 2018 IAAF policy (Franklin, Betancurt, & Camporesi, 2018; Karkazis & Carpenter, 2018; Menier, 2018; Pielke, 2018; Posbergh, 2018; Sönksen et al., 2018).

Yet, the IAAF’s newest policy falls in line with both its history of regulating female athletes and of othering intersex individuals. Ultimately, this new policy is a restoration of sex testing and policing, under the guise of scientific jargon. It reflects the Foucauldian idea of *biopower* by utilizing and promoting preexisting ideas around the divisions of sex and what it means to be a woman, and using these ideas to continue to unjustly treat and control intersex individuals and athletes.

Biopower

With his concept of biopower, Foucault (1978) considers the idea of “power over life” (Foucault, 1978, p. 139), or the operation of power in modern society in and through the maintenance of the individual body and collective population body. His development of this idea of power emerged from the manifestation of sovereign power in the fear of death in the penal system. If subjects looked to rise up against a ruler, the subjects risked death as the sovereign would exercise his right to kill. Thus, power manifested in the fear of death and dying. However, Foucault looked at the moments in which the sovereign did not exercise his right to kill, and instead, refrained from it. This manifested in a power over life, with the living subject

disciplining his body to conform to the expectations set on him and around him under the idea of rehabilitation. Foucault dubbed this idea biopower, combining the Greek root word *bios*, meaning “relating to life,” with power. Hence, “power over life.” From his lectures at the Collège de France and in his first volume of *The History of Sexuality*, Foucault (1978) defined the concept of biopower:

[Biopower is] a number of phenomena that seem to me to be quite significant, namely, the set of mechanisms through which the basic biological features of the human species became the object of a political strategy, of a general strategy of power, or, in other words, how, starting from the eighteenth century, modern western societies took on board the fundamental biological fact that human beings are a species. (p. 16)

Essentially, biopower emerges through the self-disciplining of bodies to make them adhere to the norms and expectations placed upon them, manifesting at the level of both the individual and society. The individual aspect appears in the self-regulation, and the societal component becomes evident in the construction of norms and expectations. Additionally, Foucault writes that societal biopower appears through the accepted practices of population statistics and public health, or, in essence, “societal norms” (Dean, 2010; Raman & Tutton, 2010). Or, in the context of intersex athletes, the question of “male or female” on surveys and applications.

This question of sex reflects a deceptively facile division between the sexes and thus, looks to enforce the binary norms of male and female categories; an idea that is further reflected in the IAAF’s newest policy. The built-in ideas of this policy thus assume that male and female bodies do have normal shapes and sizes, and more importantly, that they should be regulated through an athlete’s levels of testosterone. The connection between male and female, and the role of testosterone is elaborated early on in the policy, as the regulation states,

Because of the significant advantages in size, strength and power enjoyed (on average) by men over women from puberty onwards, due in large part to men’s much higher levels of circulating testosterone, and the impact that such advantages can have on sporting performance, it is generally accepted that competition between male and female athletes would not be fair and meaningful, and would risk discouraging women from participation in the sport. (IAAF, 2018b, p. 1)

Thus, it is largely because of testosterone that men and women exhibit performative differences, thereby dictating the necessity to regulate the amount of hormone in female athletes. The focus on solely female athletes emerges from the belief that once a certain testosterone level is reached, the female athlete will, essentially, become a male athlete. This assumed threshold of testosterone then requires a regulation between male and female so as not to allow a female athlete to enjoy the “significant advantages in size, strength and power” found in male athletes. As such, there becomes only two options for athletes: female, until the magical testosterone level is reached, and then male, with no upper limit on testosterone (or lower limit, for that matter, if the athlete identifies as male from birth and onwards). This testosterone division only acts as a regulator for female athletes, as the new IAAF policy does not test male athletes. While testosterone is thought to promote performative success, it is grounded in a belief in the biological inferiority of women; in the case that a male athlete falls below the male/female testosterone boundary, he may still compete as a man, as male athletes are believed to be biologically bigger, stronger, and more powerful than female athletes.

However, as many scholars have wondered (see: Bostwick & Joyner, 2012; Cooper, 2010; Schultz, 2011), why is testosterone the only biological component measured if “size, strength and power” are the elements that elicit athletic success? In that same vein, why are factors such as body fat percentage, arm length, and height not regulated? As Karkazis (2018) perspicuously remarks, testosterone acts “as a synecdoche and a vehicle for masculinity.” The connotations around testosterone make it more than a method of separating men from women. It also reinforces the affiliations between masculinity and men, and femininity and women, denying any potential crossover between the two. Through the strict maintenance of their male and female categories, and subsequently, the qualities of masculine and feminine, this IAAF policy forces athletes to discipline their bodies to fit a constructed mold of a male or female athlete, especially the latter, in order to avoid suspicion and to retain their eligibility to compete. By focusing on testosterone as that which divides the sexes, the IAAF instills ideas of what it means and looks like to be a male athlete and what it means and looks like to be a female athlete through the connotations associated with this hormone.

The Construction of Knowledge and Truths

Moreover, in citing scientific data to support their claims around testosterone and its effects on the body, the IAAF constructs knowledge around male and female bodies, or in Foucauldian terms, *regimes of truth*. These regimes of truth are accepted and popularized forms of scientifically constructed knowledge and beliefs which preserve a dominant power hierarchy, thus establishing norms. In the context of intersex athletes, a gendered hegemonic power relationship and norms about maleness and femaleness are reiterated. This then returns to Foucault’s original idea of biopower, as it disperses throughout the individual and the surrounding population. In distinguishing between what is normal and what is ‘abnormal,’ the concept of biopower explains the individual necessity to comply with these norms. When considering the power of science as a modern institution and subsequently, scientific knowledge as one of these regimes of truth, science-driven supposed truths and associated discourse establish supposedly normal levels of testosterone. These levels are then used to police, regulate, and discipline individual bodies into fitting a larger population-level accepted norm through discursive norms as a form of knowledge. That is, the act of adapting and accepting societal expectations becomes normalized and anticipated through the use of scientific belief and knowledge as the truth and, further, discounts the dynamic constructed realities of individuals in favor of reason backed by science.

Thus, Foucault’s idea of biopower and the construction of knowledge and universally accepted truths through science and scientific discourse helps explain the effectiveness of this strategy by the IAAF, as bodies become molded and disciplined by the individual, and are reinforced by society’s perceived ideas and ideals. That is, while the sex binary is normalized in society, normalized images of how that binary manifests are also created. They are then maintained by society (or in this case, the IAAF) and further sustained by an individual’s desire to fall within the boundaries of these norms. Individuals who fall outside of these norms, such as the athletes in this particular case study, face grim consequences for an implied lack of discipline in attending to these norms and for an implied resulting abnormality. Hence, Foucault argues that the creation of norms in institutional structures reproduce inequities for those who break from the constructed standards.

Consider the narrative of Caster Semenya, an outstanding track and field star from South Africa who did not fall within the typical parameters for a female athlete. When she competed as a

female athlete, her sex was called into question due to her outstanding performance, and her supposedly more masculine appearance, including a “lack of makeup, impressive musculature, braids that [gave] the impression of closely cropped hair, and her height” (Karkazis et al., 2012, p. 6). Later on, other athletes competing against Semenya made comments such as, “frankly speaking, her behavior, the way she moves, she was [like] a man for me, every move, every gesture was not a feminine gesture but a masculine one...there was nothing feminine about her” (Jakubowska, 2014, p. 457) and “these kinds of people should not run with us. For me, she’s not a woman, she’s a man” (Clarey & Kolata, 2009). When considering Foucault’s biopower, these comments become illustrative of a perceived normal body for female athletes, and the consequences for athletes who do not fit this norm. The comments also reveal that perceptions about normal bodies for female athletes also involve race, as there is also a recognizable racial undertone in the commentary around Semenya’s body. The intersection of Semenya’s non-feminine gender performance and her blackness violate the normative Western white body, and therefore violates both racial and biological norms. That is, her blackness escalates her (lack of) femininity, contributing to the backlash from her competitors (Karkazis & Jordan-Young, 2018).

In focusing on these comments through a purely biological focus, the societal influence of biopower results in her competitors shunning and rejecting her presence and her body. They separate her from them, not only as a “man” rather than a “woman,” but even as a completely different category of being as seen in the final comment: “these kinds of people.” The implied need for Semenya to discipline her body in order to fit these feminized norms or to remove herself from the female space as voiced by other female athletes then becomes reified with the formal classifications of female athlete. Further, when considering the scientific regimes of truth, comments by Semenya’s competitors reflect the implied consequences of testosterone, such as advances in “size, strength, and power enjoyed...by men over women” in their focus on her physical appearance (IAAF, 2018b, p. 1). These scientific norms have been taken up in popular imagination through the connection of biological body parts to feminine traits as Karkazis et al. (2012) describe in the attribution of masculinity to musculature, height, and lacking makeup. While biology certainly does not reflect feminine or masculine characteristics, the congruence of the terms “male and female” and “masculine” and “feminine” in the comments by Semenya’s competitors shows the manifestation of scientific discourse in common and popular understandings, for the purpose of perpetuating a divide between those who are accepted as women and those who are accepted as men.

Hence, the policing of Semenya’s body is not only accomplished through this new IAAF policy, but also through the embodied scientific norms about who is and who is not a woman that are voiced by her competitors. The two work in tandem, as the beliefs and reactions of her competitors are essentially supported by the installation of the IAAF’s new policy. The utilization of scientific discourse and consequential norms as the dominant source of information and truth oppresses those who challenge these dominant modes of knowledge. Foucault’s troubling of how and why this knowledge is constructed highlights the intersection of information and equity and demonstrates its larger impact on the lives of individuals, revealing consequential inequities and isolation in society.

Conclusion

While more fluid interpretations of sexuality and gender have emerged in certain institutions, normalized opinions, such as accepted beliefs about normal bodies and policies upholding these convictions, still prevent uninhibited progress. The newest IAAF policy is one example of such a

policy, driving forward outdated ideas of maleness and femaleness through their support of science (faulty science at that), of connotations associated with a hormone, and of a belief that sex operates in a binary. However, these ideas continue to marginalize and widen the health disparity gap for intersex individuals, and reinforce an unfounded need to fit into an accepted build for a male or female body. Though this need emerges through the inflexibility of societal understandings of the sex/gender binary, the consequences often manifest in health disparities and inequities of intersex individuals. When considering how the IAAF's newest policy fits into the broader narrative of how intersex individuals are perceived and treated by society, the unjustness is unmistakable. In reality, sex is far too complex to categorize and label; there will forever be another element to consider, another body part to examine, and another biological component to measure. By capitalizing on the use of scientific discourse to support socially constructed ideas and ideals, the IAAF continues its ever-continuing trend of implementing a sexist agenda, and of refusing to allow female athletes—all female athletes—to participate in sport, untethered by the falsely assumed limitations of their sex and continues to contribute to the broader health injustices faced by intersex individuals.

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