

The 'Science' of Sexism: Athletic Sex Classification and Fairness in Competitive Sport

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## ABSTRACT

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This paper will examine how the justification and enforcement of sex classification in sport has been underpinned by a flexible, inconsistent account of sexual difference that I label ‘athletic sex’. My definition of athletic sex builds on the research of legal theorist Paisley Currah, who understands sex classification as an effect of state actors who classify people as a means to deny them resources. In an effort to expand Currah’s ‘functionalist’ analysis of sex classification beyond the activities of state actors, this paper will argue that athletic sex classification represents political concerns about the natural, biological, stable, and predictable properties of the sexed body in terms of their athletic capability in sporting institutions and regulations. I will explore in detail two functions of athletic sex classification. First, through a critical engagement with sports ethicist Sigmond Loland I will argue that the ethical value of fair competition substantiates the limits imposed by the idea of natural sexual difference when applied to sex classifications. I contend that athletic classification should instead be based on differing athletic capacities. I will further examine the progressive attempts by international sporting institutions to search for an objective scientific marker that would determine sexual difference and thereby preserve fair competition. Each marker has been based on features of the sexed body that purport to stand for natural feminine weakness, and has broadcast these differences through sporting institutions and popular entertainment in order to justify the restriction of resources for athletes in the female category.

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Figure 1 The 1983 'Femininity Passport' of María José Martínez-Patiño. In 1985, she was ruled ineligible to compete as a woman following a further chromosome test. (Image from Martínez-Patiño, "Personal Account").

## Introduction

In 1966, responding to increasing suspicion over the femininity of Eastern Bloc and African athletes in international sporting events, international sporting bodies began systematically implementing sex tests for athletes in the female category.<sup>1</sup> At the 1966 International Amateur Athletic Association (IAAF) European championships in Budapest, Hungary, all 243 women participating were mandated to strip naked and present themselves in front of a panel of doctors. As an American shot putter Maren Siedler, who underwent a similar examination in the 1967 Winnipeg Pan-American games, described it:

[T]hey lined us up outside a room where there were three doctors sitting in a row behind desks. You had to go in and pull up your shirt and push down your pants. Then they just looked while you waited for them to confer and decide if you were O.K... I wasn't really afraid of not passing, I just felt that it was humiliating... since then it's become routine.<sup>2</sup>

The doctors in both events conferred on whether the athlete, from a visible inspection of their naked body, was for athletic purposes of female sex. As Siedler described, not all athletes passed, often because of sexed physical traits that had nothing to do with athletic performance:

... I remember one of the sprinters, a tiny, skinny girl, came out shaking her head back and forth saying, "Well, I failed, I didn't have enough up top."<sup>3</sup>

If the athlete passed, they were issued a 'femininity passport' to confirm their sex at later athletic events (an example of such a femininity passport can be seen in Figure 1). Yet each athlete, if they continued their amateur careers by participating in the 1968 Olympic Games, would have been subject to further sex testing. By then, the standard test for sex had already shifted from

genital inspections to chromosomal analysis, which would continue to be required before Olympic competition for every athlete in the female category until the 2000 Olympics in Sydney.

Sex testing has become routine in international and national sporting competitions for athletes in the female category. Today, rather than genital inspections or chromosome tests, the primary marker of athletic sex is testosterone. While the specific marker of athletic sex has changed, its goal has remained largely fixed: to find a scientific, objective marker that will clearly determine the difference between men and women, so that they can be efficiently classified into male and female athletic categories. Yet each progressive marker has failed this goal, and instead only introduced controversies and disagreements about the ‘reality’ of sex.



Figure 1. The 1983 ‘Femininity Passport’ of María José Martínez-Patiño. In 1985, she was ruled ineligible to compete as a woman following a further chromosome test. (Image from Martínez-Patiño, “Personal Account”).

This paper will examine how the justification and enforcement of sex classification in sport has been underpinned by a flexible, inconsistent account of sexual difference I label ‘athletic sex’. One of the defining features of sex as a concept is that it positions itself as being biological, stable, predictable, universal, and independently verifiable. This is in contrast with gender, which has tended to designate the socially determined, mutable, particular, and self-verifiable grounds of one’s identity. Sex therefore positions itself as able to understand the physical, and thereby social and political differences between people prior to social or philosophical inquiry. I will argue that athletic sex, rather than being a scientific category, is instead a political one, one that by posing as scientific summons unquestionable *a priori* assumptions about feminine weakness. My concept of athletic sex is largely developed from the work of legal theorist Paisley Currah,<sup>4</sup> who understands sex as a functional concept used by state actors as a means to classify people and thereby deny them resources. While I largely see athletic sex as operating in a similar way as Currah does, but in the domain of international sporting institutions, I am critical of how he understands sex classification as being primarily a legal operation. The first section of my paper will therefore define athletic sex through a critical engagement with Currah. I will argue that athletic sex classification represents political, not merely legal, concerns about the natural and objective properties of the sexed body in terms of their athletic capability in sporting institutions and regulations. Thus, these natural and objective properties justify the restriction of resources for athletes in the female category as they *a priori* define it as inferior.

There are two domains where I argue the concept of athletic sex is substantiated as a means of, in Currah’s words, denying to women “the rights and resources available to men.”<sup>5</sup> The first is the ethical concern around fairness in competitive sport. Competitive sport can be



characterised, to borrow from the philosopher of sport Graham McFee, as a “moral laboratory,”<sup>6</sup> where ideas concerning social and political divisions can be tested, naturalised, broadcast, and institutionalised. I will argue that the ethical value of fair competition has historically represented and substantiated the political limits imposed by athletic sex. Athletic sex classification in this context represents the political concerns about the natural and objective properties of the sexed body in terms of their athletic capability in sporting institutions and regulations. I will argue for a version of competitive fairness that distances itself from the assumptions of natural sex differences through a critical engagement with sports philosopher Sigmond Loland’s version of competitive fairness, which looks to justify sex classifications with broad empirical evidence.<sup>7</sup>

Finally, I will examine how sex testing has historically been used in international sport as a means to regulate athletes in the female category. I argue that sex testing has represented progressive attempts by international sporting institutions to search for an objective scientific marker that would determine sexual difference and thereby preserve fair competition. Each marker has been justified based on features of the body that purport to stand for feminine weakness. Sporting institutions have ‘sexed’ these traits and broadcast them as natural through sporting institutions and popular entertainment in order to justify the restriction of resources for athletes in the female category. Although these markers of sexual difference have progressed from understanding athletic sex as being visible to invisible, from being immutably feminine to the mutable negation of masculinity, its overall function has not changed. Athletic sex, enforced through sex testing, is used to justify the athletic superiority of men over women and render the women’s athletic category as inferior.

## What Does Athletic Sex Do?

This section will clarify the meaning and relevance of the term athletic sex, which represents political concerns about the natural and objective properties of the sexed body in terms of its athletic capability in sporting institutions and regulations. This definition of athletic sex draws on Currah's understanding of sex classification as a legal effect. I argue that, while Currah provides a timely intervention in the feminist literature concerning the contemporary function of sex classification, I remain critical of how he limits sex classification as functioning only through legal mechanisms, as this underestimates the positive, political use of sex as a concept by reactionary political actors. In an effort to build upon Currah's approach to sex classification, one where sex is understood as being what it does, my analysis of athletic sex intends to demonstrate that sex is more than a legal effect – it is a concept that justifies the natural inferiority of women over men on the basis of the sexed body.

Disputing sex as a scientific, natural, and objective category has been a preoccupation of feminist scholarship over the previous few decades.<sup>8</sup> This has in part led to gender becoming the dominant term in both academic literature and parts of public life. The reorientation towards gender in feminist literature was in part motivated by a desire to emphasise gender oppression as being primarily a social and political problem, and a form of oppression that is applied not only to women but also to gay, lesbian, and transgender people. It is further a consequence of the increasing visibility of transgender people, who have presented an embodied challenge to the immutability of sex. Feminist theorists have generally accepted Susan Stryker's argument that there was a transgender 'tipping point' around 2010 wherein public consciousness of transgender people and issues sharply rose.<sup>9</sup> The contemporary resistance to the displacement of sex as a

category in this context reveals political priorities concerning natural, scientifically discoverable sex differences.

Currah argues that sex has persisted primarily because it is a flexible tool of social categorisation and resource allocation by state actors. He argues that this explains the seemingly contradictory and diffuse character of sex – why it is at once natural and scientifically uncoverable, yet legally inconsistent and unevenly enforced. Sex is not a fixed category that can be defined relative to scientific criteria or even a fixed definition of gender, but rather “whatever an entity whose decisions are backed by the force of law says it is.”<sup>10</sup> Rather than being an oppositional or complementary category to gender, “sex is gender pretending to be a scientific truth,”<sup>11</sup> that is, it purports to represent the objective elements of sexual difference over which a social definition of gender does not have authority. Sex is visible as a flexible tool of social classification used by state actors, Currah argues, by examining historic attempts by transgender people to reclassify their legal sex designations. Transgender people are required to engage with a variety of state actors to legally reclassify their sex. The different forms of resistance they face in doing so renders visible “the different work that sex does in different contexts,”<sup>12</sup> and further, demonstrates how the concept of sex is defined not by scientific criteria, but is instead crafted as a means to deny “to women of the rights and resources available to men.”<sup>13</sup> Currah’s functional account of sex provides a clear explanation as to why a concept of sex has persisted: it continuously redefines itself as a means to reimpose gender oppression.

Currah argues that his account of sex is distinct from previous approaches in feminist literature as he understands sex in terms of its function over its essence: that is, sex is what it does. By attempting to define sex against nature, science, or gender, Currah believes historical

feminist theory has underemphasised the contingent and political nature of the category. He proposes that feminist theory has four broad approaches to understanding sex classification:

- 1) Social conservatives: Sex is determined at birth, conception.
- 2) Postwar twentieth-century sexology: Sex is constituted by genitals.
- 3) Liberal: Sex is gender identity.
- 4) Constructivist: Sex is an effect of gender norms.<sup>14</sup>

All four approaches, he argues, fix sex as a kind of object that can be defined relative to gender. By doing so, historical feminist literature “has taken the categories of M/F as given *a priori*.”<sup>15</sup> This is because it has taken sexual difference as such as *a priori*, which thereby calls for what is being distinguished to be defined. Whilst the ‘constructivist’ approach may seem amenable to Currah’s analysis, he argues that seeing sex as an effect of gender does not provide any foundation for approaching the definition of sex or gender other than *a priori* sexual difference. He further argues that by seeing sex as an effect of gender, the constructivist camp does not examine how states use the concept of sex to distribute rights and resources.<sup>16</sup> They are instead overly concerned with pointing out definitional inconsistencies, which he criticises as “merely pointing out that sex lacks an objective foundation.”<sup>17</sup> This, he maintains, “will not bring about the collapse of the classification system or the power of states to establish and maintain categories.”<sup>18</sup> Currah, looking to circumvent the pitfalls of understanding sex in terms of its essence, instead highlights what sex does, and concludes that it is “a legal effect” of state actors classifying people in order to deny them resources.<sup>19</sup> He describes the legal effect of sex as follows:

In its work of setting out distinctions – and in the indeterminacy of these distinctions – it generates peoples, families, nations; it recognises, it surveils, it distributes, it charts out lines of inheritance.... It turns the metaphor of blood into a legal/political fact.<sup>20</sup>

Currah's intervention in the feminist literature justifies clearly, in my view, why sex classification has persisted in the legal domain, and provides an effective philosophical strategy to understand the contemporary manifestations of sex: by assessing it in terms of what it does, how it classifies, and how it distributes resources. If Currah's analysis were placed into his own proposed genealogy of approaches to sex classification in the feminist literature, as a fifth approach it could be described as 'functionalist', where 'sex is what sex does'. However, Currah's account is unnecessarily limited as it understands sex classification as primarily a legal function, and I argue that Currah's critique of the constructivist camp is complicit in this limitation. His account could be strengthened by engaging with the 'constructivist' political critique of the sexed body as a foundation of sexual difference and oppression. This will provide the grounds for this paper to later detail the political function athletic sex as operating to sustain reactionary ideas about natural sex differences in sporting institutions. By further analysing athletic sex in Currah's terms, I hope to expand the scope of Currah's 'fifth approach' by detailing a contemporary political function of sex classification.

From the outset, Currah rules out an engagement with the debates concerning the differences between sex and gender because he argues that this debate prefigures sex difference as an *a priori* foundation. I argue that for certain figures in the 'constructivist' tradition, this is far too dismissive. He neglects their engagement with a key political idea that emerged past debates about sex and gender: that without grounding feminist studies on the materiality of the sexed body, it could lose a solid basis from which to understand and overturn gender oppression.

Feminist studies could risk losing real substance, real grounding in material reality. Judith Butler, one of the figures elided under ‘constructivism’ by Currah, described this debate in the feminist scholarship as being concerned with trying to “ground itself in the sexed specificity of the female body.”<sup>21</sup> Yet in trying to specify exactly what was represented by sexed bodies, Butler lamented that she could “not fix [them] as simple objects of thought,” as they were always moving “beyond their own boundaries.”<sup>22</sup> She concluded, “perhaps this resistance to fixing the subject was essential to the matter at hand.”<sup>23</sup> What then does the sexed body represent? This is perhaps best understood by examining the defence of the sexed body in the reactionary, anti-transgender criticisms of ‘constructivist’ theorists. For example, the notorious anti-transgender writer Sheila Jeffries argues that “Gender... disappears the fixedness of sex, the biological basis that underlies the relegation of female to their sex caste.”<sup>24</sup> Jeffries argues that sex is a natural, biological, embodied category that inherently grants women (and men) a common interest. If sex as a category is replaced by gender, then the recognition of the common interest of women is effaced; it is instead muddled with the interests of gay men and transgender women.<sup>25</sup>

Butler’s reply to the anxieties of the reactionary camp is instructive. She contests the supposed ‘material’ grounding of sex by asserting that bodies, too, are created; if they formed the ground for gender, then gender would in many ways be prefigured by the confines of a material sex that it cannot touch. Rather than sex producing gender, sex is an *effect* of gender, in the sense that it occupies the position of what is taken as ‘natural’ in sexual difference. The sexed body as a concept therefore inherently relegates women to being inferior to men and falsely wedges the common interest of women from that of lesbian, gay, and transgender people.

Although Currah indirectly responds to Butler’s formulation of sex by understanding it as “not only an effect,” but as something that “turns the metaphor of blood into a legal/political

fact,”<sup>26</sup> he does not take the further step of addressing the object of Butler’s critique: the reactionary argument in favour of the sexed body. The debate around the sexed body is a political debate, one concerning common interest and the politics of self-identity. Currah, however, by looking only at the legal mechanisms of enforcing sex, legal sex reclassification, prefigures the object of his critique as being unnecessarily constrained to state mechanisms and enforcement. In advance of his analysis, Currah forecloses the possibility of political concerns about sex emerging extralegally, thereby ruling out the possibility of sex classification emerging as a premise from the political concerns around the natural, sexed body.

If sex is first emphasised as a legal effect rather than a social and political one emerging from concerns around the sexed body, it is then impossible to assess the political role of sex classification without first filtering it through the actions of legal institutions. The result of this error, in my view, is that it limits Currah’s analysis to underemphasise the threat of the extralegal, reactionary, political defence of sex classification that has grown in strength over the last decade. If sex, defined by natural, immutable, and scientifically visible features such as genitals, chromosomes, and hormones, creates a common social interest among women, then it follows that their interests are not shared and are perhaps opposed to that of gay, lesbian, and transgender people. As Currah notes, transgender people highlight the mechanisms of legal sex classification by embodying their contingency through their engagement with state actors. This is clearly not only the case in the legal domain, but also in social and political domains where the sexed body has been raised as a political issue.

Despite this criticism, Currah’s functional account of sex provides an excellent framework through which to understand the contemporary political role of sex. I intend to build on his ‘fifth approach’ to sex classification, where sex is what sex does, by examining its

political role in sporting institutions, a form of sex classification I will call *athletic sex*. I understand athletic sex as being a concept that stands for biological, stable, predictable, universal, and verifiable sexed differences between people in athletic settings. Sport straddles the boundaries of legal and social controls, entertainment and ideology, and the social and political role of science. Sport has long been observed to function as a metaphor for the social and political questions of society by Foucault scholars.<sup>27</sup> In this tradition, social theorist Jennifer McClearen usefully characterises sport as “a discursive construction that draws upon scientific and medical regimes of truth, which are governed by regulatory institutions.”<sup>28</sup> Sport, a practice where the differences in physical capabilities of people are drawn out, is a domain where the ‘scientific’ foundation of sex can be translated into supposedly objective social and political claims, both through media broadcast and through the participation in concrete institutions. Beyond work and the family, sporting clubs are one of the main civil institutions that working people engage with. It is, therefore, a pressing domain of analysis of the contemporary reactionary political defence of sex.

## **Sex Classification in Sport: A Question of Fairness?**

The previous section characterised athletic sex as a political concept functioning to classify people based on supposed biological, stable, predictable, universal, and verifiable sexed differences between people in athletic settings. This section will explain how athletic sex has worked to classify people through the ethical value of competitive fairness. Historically there have existed three major categories of sporting classification: able and disabled; doped and clean; male and female.<sup>29</sup> Although the differences between each classification have sometimes proven unclear (e.g. is testosterone a performance-enhancing drug? When is a ‘disability’ an advantage? Is being a female athlete a form of disability?), what distinguishes the male and



female classifications are that they are premised both on a social identity and on assumed traits of the sexed body. Foucault understood ethical limits such as these as foundational to the definition of sexuality. Sexuality is, according to him, defined by its pushing against the social limits regarding sexual conduct, the transgression of that limit illuminating it as what it is.<sup>30</sup> Currah builds on this observation by arguing that transgender people, by crossing the boundaries of sexual difference, reveal the limits imposed by legal sex classifications. Transgression illuminates the limit of what it transgresses in the case of athletic sex as well, as transgender (and indeed intersex) athletes unsettle the foundation of sex classification by disturbing its supposed immutable basis. Indeed, the primary argument against transgender participation in sport from the reactionary political camp has been that, given that sex-based athletic advantage is so pronounced, it cannot be altered by self-identification or gender-based health intervention, and thus the classification of athletes according to sex is the only way to prevent unfair competition.<sup>31</sup> This is why the contemporary formulation of the ethical value of competitive fairness functionally substantiates athletic sex, because, in the athletic domain competitive fairness represents and substantiates the limits imposed by the idea of natural, objective embodied sexual difference. As I will explore in the next section, the ethical defence of competitive fairness regarding athletic sex has historically provided the *rationale* for the enforcement of sex-based classification in sport through sex testing. In this section, I will argue for a version of competitive fairness that rejects the necessity of athletic sex, and instead bases itself on the specific capacities required to perform in different sports.

Although there is some research that frames sex classification as unfair on the basis of its enforcement through sex testing or the inherently inferior position to which it relegates women athletes,<sup>32</sup> the academic literature has consistently treated competitive fairness in terms of sex

classification as an ethical problem concerning primarily transgender athletes. This debate has largely conceived of transgender participation in sport as concerning a tension between conflicting rights: the right to fair competition, or the right of inclusion.<sup>33</sup> Yet framing fairness and inclusion as rights in conflict admit that one might need to be sacrificed to preserve the other. Adopting this framing, the most optimistic outcome possible in arguing for transgender athletes to participate in the classification of their choice is that fairness is sacrificed to preserve inclusion. I argue, however, that this is not necessary: the idea that fairness and the inclusion of transgender athletes are in conflict arises only if there is a concept of athletic sex that raises the sexed body as an object of ethical concern. If we attempt to construct a concept of fairness without presupposing natural sexual difference, it can be argued that fairness can be assessed in terms of athlete's capacities relative to performance in specific sports, rather than presumed natural sex differences.

What specific deficiencies does an ethical formulation of competitive fairness have in light of athletic sex? A clear demonstration of these deficiencies is visible in the version of competitive fairness developed by sports ethicist Sigmund Loland.<sup>34</sup> Loland isolates the ethical concerns around fair participation in sport with a principle he describes as the 'Fair Equality of Opportunity Principle' (FEOP), defined as:

Inequalities between sports competitors with significant and systemic impact on performance that the competitors cannot impact or control in any reasonable way ought to be eliminated or compensated for.<sup>35</sup>

An inequality that violates the FEOP is in his view an athletic capacity that has the following necessary traits:

- 1) It exerts a significant impact on performance;
- 2) It exerts a significant impact in most if not all competitions;
- 3) It is outside of competitor impact or control.<sup>36</sup>

This view of inequality and fairness, he claims, starts from ethical and normative principles, rather than empirical or scientific ones. Loland's definition therefore might appear to arrive at a desirable destination: a definition of athletic fairness that does not found itself on assumptions about the sexed body. However, from his principle, Loland later draws some questionable conclusions about sex-based athletic classifications. This is because he throws on top of his principle what he implies are empirically unquestionable premises: a) that men have superior sex-based capacities than women; and b) that male athletic performance is better than female athletic performance overall. The remainder of his argument revolves around strengthening these two premises with empirical justifications. He thus concludes that that sex-based athletic classifications are in general justified, barring some exceptions such as ski jumping. Remarkably, he remains ambivalent as for how to approach the classification of intersex and transgender people. This ambivalence, in my view, is demonstrative of the implicit limit that Loland is posing by asserting athletic sex as a necessary element of classification in sport. For there to be sex-based athletic capacities, according to Loland's FEOP, there must be immutable differences that produce objective and immutable physical inequalities between people. The only way to maintain, therefore, that sex-based classification is necessary for athletic competition is to draw upon the sexed body as a stable foundation from which to classify athletes, where sexed attributes of the body justify systemic and significant inequalities. Loland, however, does not specify what sexed traits produce *necessary* inequalities between male and female athletes.

Abstracting from sexed differences for a moment, a certain level of inequality is necessary to fulfil the objectives of sport. If sport were to be completely fair, then every participant would need to have absolutely equal capacities and would therefore perform absolutely equally. This is obviously impossible. Even if perfect athletic equality were possible, it would not be desirable. Given that the entire object of sport is competition between people with regards to their capacities, if all inequalities between people were removed, sport as a game that compares and tests the capacities of people relative to each other would be pointless.

Loland justifies the inherent inferiority of female athletes by isolating certain capacities he believes are indicative of a general inequality between men and women. However, what is meant by capacity exactly is important to specify. I take a capacity in an athletic sense to mean the possibility of an individual to produce an effect on the world around them that can be meaningfully isolated. This includes mutable and immutable possibilities as diverse as mental determination, maximal bench press, or height. Capacities, however, are not abstract – they can only be isolated as such when understood in the context of achieving a specific task. For example, being capable of bench pressing 100 lb is a capacity, yet this involves coordination between muscular, skeletal, and mental capacities, which in different contexts could be understood as capacities in their own right.

Performance in this light can be understood as the complete synthesis of all the capacities used in achieving the goal of a sport. For example, calf muscle mass can be isolated as a capacity relevant for the performance of long-distance runners. Long distance running is not reducible to calf muscle mass, and indeed the use of this capacity will be enhanced or depressed according to the harmony of a collection of capacities relative to the performance of the task. Performance in a sport is, therefore, not reducible to the maximisation of specific capacities – it must be viewed

relative to the entire ensemble of capacities that make up the achievement of that sport. This is to say, sport is more than a series of isolated capacities. This is for the better, since if the goal of sport was simply to maximise specific capacities, then it would then be reduced to a series of tests in a lab, rather than the fulfilment of a competitive game of difference.

There is no one way to perform in a sport and no one capacity is developed in isolation. Training intends to maximise the use of specific capacities and the overall harmony of these capacities to increase performance. Improving sports performance requires more than just improving capacities generally. This is because, as every person has a unique body, their way of developing their capacities to increase performance will be different. To take a pronounced example, in boxing the technical style of a boxer tends to follow from their height relative to their weight, as athletes compete against one another by weight classifications. Shorter boxers will often have less arm reach but will be stronger by weight, and will therefore attempt to get close and overwhelm their taller opponent. Greater height could be understood simply as an advantage from one fighter to the next, as taller fighters will likely have longer arm reach and therefore the ability to strike their opponent at a greater range. Yet, because there is the possibility of strength, training, skill, and style mitigating this advantage, boxing matches are not classified according to height, but to weight. Yet, if we took Loland's model of athletic inequality strictly, height in boxing could be understood as a capacity that would violate the FEOP, as height taken in isolation has a significant impact on potential boxing performance and is a capacity outside the athlete's control. Height is however perceived as a justifiable inequality in boxing as it can be mitigated by other capacities, and is indirectly controlled through classification according to weight.

Returning to Loland, he justifies sex-based athletic categorisation in his FEOP given general statistics about the athletic inferiority of women according to their specific capacities.<sup>37</sup> Yet from this he does not propose sports classifications on the basis of differing capacities, instead he uses these capacities as a means to portray women as embodying immutable qualities that render them inherently unequal to men – as embodying an athletic sex. Rather than classifying athletes according to an embodied identity that defines them as inferior, the conclusion to be drawn from the differing capacities of athletes should instead be the creation of classifications based on these differences. A capacity-oriented system of classification would be tailored to the relationship between identifiable capacities and overall performance in specific sports. These classification systems could include a wide range of capacities – the physical capacities of the athletes, but also social factors such as discrimination, training support, and access to performance-enhancing supplementation. This honours the goal of sport being a competitive game, whilst ensuring that fair competition with regards to performance is maintained, without requiring sporting institutions to police the gender identity of athletes.

Loland's conception of the female athletic category is one defined by inferior performance on the basis of an athletic sex. The increasingly visible participation of transgender people in sport, a topic that Loland remains ambivalent about, has provided an embodied challenge to the idea of immutable, objective sexual difference. Their participation has also highlighted the mechanism by which competitive fairness, based on assumed sexual differences, has historically been enforced by sporting institutions, to the detriment of all athletes in the female category: sex testing. This mechanism, I will argue, has been designed to mediate the presumed value of fairness on the basis of athletic sex, and in doing so has denied to athletes in the female category the resources to maximise their athletic performance.

## Sex Testing: The Scientific Search for Athletic Sex

Maren Siedler, the American shot putter subjected to sex testing in the 1967 Winnipeg games, summarised the rationale of sex testing in sport well:

It comes into everybody's mind... that when a woman takes advantage of her size and her body build in sports and gets national recognition, she must be more of a man than a woman.<sup>38</sup>

Whilst sex testing purports to protect the fairness of women's athletic competition, given that female category has been defined as the inferior athletic class, this scrutiny has instead pressured athletes in the female category to underperform so as to avoid suspicion about the status of their gender. Sex testing has only ever been applied to athletes in the women's category, and has targeted high performing, intersex, and transgender athletes. Rather than preserving fairness, the history of sex testing represents progressive attempts by international sporting institutions to find an objective scientific marker that clearly determines the difference between men and women, so that they can be efficiently classified into male and female athletic categories on the presumed basis of fairness. Over time, these markers of sexual difference have shifted from understanding athletic sex as being visible to being invisible, from being immutably feminine to being the mutable negation of masculinity. Yet no matter the marker, each attempt has justified natural sexual differences by isolating features of the body that purport to stand for feminine weakness. International sporting institutions have 'sexed' these traits in order to regulate one sex as objectively inferior, and broadcast these sexual differences through sporting associations and popular entertainment to justify the natural inferiority of women.

The main institution that has historically implemented sex testing as a means to justify sex-based athletic classification has been the International Olympic Committee (IOC), which

was “one of the primary vehicles which emphasised and broadcast the physical and social differences between men and women to the world.”<sup>39</sup> Sporting institutions like the Olympics establish the rules for popular moral and pedagogical conflicts, and set the regulatory models for national, provincial, and local club sporting rules that shape attitudes about fairness, equality, cooperation–, and sexual difference.

The practice of sex testing for competitive sport emerged in the 20th century. Prior to this in the 19<sup>th</sup> century, women were largely excluded from organised sport on the false basis that exercise was unhealthy or dangerous for them.<sup>40</sup> Sex testing methods used over time fall into three categories: genital inspection by officials, chromosomal analysis, and testosterone levels. These methods, developed and implemented by international sporting bodies, attempted to identify a natural, scientific, and universal marker of sexual difference rather than assessing athletic capacity more holistically.<sup>41</sup>

The first systemic sex test introduced to monitor athletes in the female category was genital inspection at the 1966 British Empire games in Jamaica and the 1967 Pan-American games in Winnipeg. Athletes in the female category were required to strip naked and have their genitals physically inspected by a doctor.<sup>42</sup> This policy of sex testing posits that that sexual difference can be visibly and reliably identified from the genitals, and that there is a causality between different forms of genitalia and potential athletic capability. In this period, it also posited that sexual difference was immutable, given the lack of access to gender reassignment surgery procedures. For women, ‘normal’ genitalia represent the possibility for reproduction, and in this sense fertility is counterposed with athletic ability. This helps explain why athletes were recorded as ‘failing’ this sex test on the basis of sexed traits that had nothing to do with athletic performance, such as having small breasts.<sup>43</sup> Passing a sex test on the basis of a visual inspection



is a clear indicator that female athletes were inherently classed as competing in the inferior category. In Simone de Beauvoir's terms, female genitalia have historically functioned as a physical symbol of women's passivity in relation to men.<sup>44</sup> Despite changes in the marker of sexual difference at the end of systemic genital inspection in following decades, visual inspection has continued to be relied upon as the fallback mechanism for other measures of femininity. Genital inspections are also performed indirectly, as mandatory drug urine tests must be monitored by officials and they can demand further sex tests on suspicion alone.

Although the purpose of systemic genital sex testing was to ensure fairness and safety, it was a humiliating experience for most athletes. The International Olympic Committee (IOC) subsequently sought a different method to 'verify femininity' for the 1968 Mexico City games. They found it in the chromosomal test called the buccal smear, based on Murry Barr's discovery of a method for testing 'sex chromosomes' in saliva samples. Although Barr would claim that the identified chromosomes his test looked for were but "a minor detail in the maleness or femaleness of the whole person,"<sup>45</sup> it still became a standard testing mechanism for athletes in the female category until 2000, given that the test was cheaper and far less invasive than genital inspections. If an athlete failed the chromosome analysis, which occurred often due to the test's moderate reliability, they were further required to undergo full karyotype analysis, blood tests, or perhaps even physical inspections to prove their femininity to the sporting in order to be allowed to compete in the female category.

The chromosomal model appeared to sporting institutions to be the silver bullet that could fulfil the promise of athletic sex: that there existed a stable, universal, an scientifically testable trait that reliably divided men from women. It could be cheaply and non-invasively tested, and uncover the 'invisible', immutable sex traits – genitals could increasingly be

surgically altered, while genetics could not. However, the frequent application of these tests revealed, firstly, was that the existence of intersex people was more common than previously understood.<sup>46</sup> Further, given that chromosomes are only weakly predictive of other sexed traits often seen as relevant for athletic performance, athletes who passed a chromosome test were often not immune from the suspicion of being a man due to their high performance or masculine appearance. The weak influence of chromosomes on other sexed traits betrayed their promise as a universal sex marker. In a high-profile example, in 1985 the Spanish 100 m hurdler, María José Martínez-Patiño, was required to repeat a chromosomal sex test two years after passing her initial one as a consequence of forgetting her ‘femininity passport’. She failed the second test, and later discovered she had a condition that made her ‘genetically male’ but entirely ‘physiologically female’. She described her experience a few decades later:

our team doctor told me—in front of the teammates I sat with on the night before my race—that there was a problem with my result. Our team doctor advised me... to fake an injury, so that no one would suspect anything untoward. I was shocked, but did as I was told... I sat in the stands that day watching my teammates, wondering how my body differed from theirs. I spent the rest of that week in my room, feeling a sadness that I could not share.<sup>47</sup>

At the Sydney Olympics in 2000, sex testing was paused for the first time since 1968. This would be a one-time occurrence, however, as in 2004 the IOC introduced a policy intending to regulate both intersex and transgender athletes. This policy, the so-called ‘Stockholm Consensus’, required that transgender athletes looking to compete in the female category a) have a sex reassignment surgery on their genitals; b) be legally recognised as a woman; and c) have hormonal therapy for at least two years following surgery.<sup>48</sup> This regulation, although directed at transgender and intersex athletes, indirectly set the standard of athletic femininity for all athletes

in the female category. The notable component of this policy was the introduction of hormonal regulation, which required all athletes competing in the female category to not exceed 10 nmol/L of testosterone in the blood. Notably, the 10 nmol/L boundary is the average ‘lower limit’ for men,<sup>49</sup> and the surgical and legal requirements of the Stockholm consensus were dropped in 2015.<sup>50</sup> This made testosterone, a marker that set femininity as meeting but never exceeding the lower bound of masculinity, the leading marker of athletic sex.

The shift to testosterone as the primary marker of sexual difference seems to have been a way to substantiate a concept of athletic sex that could adapt to the increasing participation of intersex and transgender athletes. Hormones represent on one hand an insistence on the invisibility and scientific discoverability of athletic sex whilst conceding to some extent on its immutability. The regulation of athletes in the female category contingent on a low level of the ‘male’ hormone frames women with naturally high androgens as unnaturally ‘enhanced’. These athletes are often required to ‘dope down’ to the ‘normal’ female levels in order to compete.<sup>51</sup> Hormones represent a mutable sex, but one defined by an absence of a sexed male trait, defining women in an athletic setting negatively as being always beneath the lower limit of masculinity. The most recent example of this is the South African runner Castor Semenya, who has been barred from international amateur athletics until she takes anti-androgen medication or undergoes surgical intervention to control her naturally high levels of testosterone.<sup>52</sup> The upshot of a mutable athletic sex is that one’s sex is always in question and must continue to be monitored and regulated. And testosterone, like chromosomes before it, is not an effective indicator of athletic performance for athletes nor evidence of a natural, scientific athletic sex. As feminist theorist Celia Roberts puts it in her critical examination of the political history of hormones: “while hormones may excite or provoke sexual difference through their effects on bodies, they

neither simply express nor produce sex... Sexually differentiated bodies are produced and understood within cultures that precede any individual.”<sup>53</sup>

Although the goal of sex testing is allegedly to ensure competitive fairness by regulating entry into the female athletic category, the history of sex testing demonstrates its failure to find a decisive scientific marker with which to tell who has an ‘unfair advantage’ according to athletic sex traits. The main result of sex testing has instead been the humiliation of women, intersex, and gender nonconforming people. These mechanisms have only ever been applied to athletes in the female category, because it has always been *assumed* that men have by nature a stronger athletic ability in all areas than women, and therefore their ‘sex’ does not require monitoring in the name of fairness. As Wamsley summarises, “it is [now] recognized in the literature that the driving force behind sex testing was a culture of hyper competition and suspicion.”<sup>54</sup> No subsequent marker of sexual difference will be able to escape this essential motive.

What a critical engagement with the history of sex testing uncovers is that athletic sex has shifted from monitoring the visible to the invisible, the immutable feminine to the mutable negation of masculinity. The contemporary version of sex is one that is objective and scientifically discoverable, yet mutable enough that athletes in the female category require consistent monitoring in order to adhere to its standard. This standard is still one that justifies a concept of the female sexed body as naturally inferior. Competitive fairness will never be found in blood and protein. The mechanism of sex testing, which purport to preserve fair competition, has historically shown itself as being more about sexism than about fairness.

## Conclusion

In 1986 María José Martínez-Patiño, the Spanish 100 m hurdler, defied advice from her sporting federation to fake an injury and to permanently withdraw from the sport on the basis of failing the chromosomal sex test, and participated in Spain's national athletic championship. The consequences for her were substantial:

When I crossed the line first in the 60 m hurdles, my story was leaked to the press. I was expelled from our athletes' residence, my sports scholarship was revoked, and my running times were erased from my country's athletics records. I felt ashamed and embarrassed. I lost friends, my fiancé, hope, and energy. But I knew that I was a woman, and that my genetic difference gave me no unfair physical advantage.<sup>55</sup>

If she had competed in any other era of sex testing, she would have been eligible to compete in the female category. But athletic sex has been a flexible tool in the hands of sporting institutions despite claiming to represent something natural, objective, and scientifically discoverable. Martínez-Patiño's athletic records were stripped on the basis that competition against her was unfair – unfair on the basis of a chromosomal result, rather than any specific capacity of her body to perform as a hurdler. Athletic sex classification has historically shared the same goal as legal sex classification, which as Currah put it, is about denying to women “the rights and resources available to men.”<sup>56</sup> The women's category remains in a subordinate category largely because it is *a priori* defined that way, with embodied, sexed traits retrospectively applied to the to justify this subordination. Athletes in the female category are thereby denied the means to excel at their sport because they are defined from the outset as competing in an inferior athletic class.

This paper has further shown that sex classification is more than a legal effect, but it is also a political one, in an effort to build on Currah's 'functionalist' fifth approach to understanding the contemporary operation of sex classification. Politically speaking, beyond the domain of sport, the drive to preserve sex based on a purported common sexed interest serves the preservation of women's inferior position compared to men, and wedges the common interests of women from gay, lesbian, and transgender people. This represents not only a legal threat, but a political threat – one that today continues to undermine the fight against gender oppression by justifying the inferiority of women on the basis of their 'natural sex'.

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## Notes

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<sup>1</sup> Harper, *Sporting Gender*, 38–39; Erikainen, *Gender Verification and the Making of the Female Body in Sport*, 53–62; Wamsley, *Social Science Literature on Sport and Transitioning/Transitioned Athletes*.

<sup>2</sup> Larned, “The Femininity Test: A Woman’s First Olympic Hurdle”, 8.

<sup>3</sup> Larned, “The Femininity Test: A Woman’s First Olympic Hurdle”, 8.

<sup>4</sup> Currah, *Sex Is as Sex Does*.

<sup>5</sup> Currah, *Sex Is as Sex Does*, 143.

<sup>6</sup> McFee, “Sport Is a Moral Laboratory.”

<sup>7</sup> Loland, “Classification in Sport.”

<sup>8</sup> Denaturalising sex was a major concern of late 20<sup>th</sup> century feminist theory. See Butler, *Gender Trouble*; Haraway, *Simians, Cyborgs, and Women*.

<sup>9</sup> Stryker, *Transgender History*.

<sup>10</sup> Currah, *Sex Is as Sex Does*, 9.

<sup>11</sup> Currah, *Sex Is as Sex Does*, 48.

<sup>12</sup> Currah, *Sex Is as Sex Does*, 143.

<sup>13</sup> Currah, *Sex Is as Sex Does*, 143.

<sup>14</sup> Currah, *Sex Is as Sex Does*, 42. Although fairly reductive, I do agree with Currah that this is a functionally useful heuristic with which to understand differing approaches to sex classification.

<sup>15</sup> Currah, *Sex Is as Sex Does*, 13.

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<sup>16</sup> Currah, *Sex Is as Sex Does*, 13.

<sup>17</sup> Currah, *Sex Is as Sex Does*, 51.

<sup>18</sup> Currah, *Sex Is as Sex Does*, 51.

<sup>19</sup> Currah, *Sex Is as Sex Does*, 40.

<sup>20</sup> Currah, *Sex Is as Sex Does*, 98.

<sup>21</sup> Butler, *Bodies That Matter*, 4.

<sup>22</sup> Butler, *Bodies That Matter*, viii.

<sup>23</sup> Butler, *Bodies That Matter*, viii.

<sup>24</sup> Jeffreys, *Gender Hurts*.

<sup>25</sup> Jeffreys largely develops her analysis following Janice Raymond's *The Transsexual Empire: The Making of the She-Male*. Both, interestingly, do not substantially engage with the question of transgender participation in sport, primarily because this has only become a political question in the last decade.

<sup>26</sup> Currah, *Sex Is as Sex Does*, 98.

<sup>27</sup> The influence of Foucault on the field of gender and sport is so pervasive it is often left unnamed. Currah for example often describes sex classification as a “technology of governance” with little reference to the genesis of these terms with Foucault, i.e. in *Technologies of the Self: A Seminar with Michel Foucault*. For a comprehensive review of the impact of Foucault in the field of sports studies, see Markula and Pringle, *Foucault, Sport and Exercise*.

<sup>28</sup> McClearn, “The Paradox of Fallon’s Fight,” 77.

<sup>29</sup> The ethics behind the ‘Paralympian’ classification has long been discussed within the sports ethics literature, including when treatment for disability may be considered an unfair

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Paralympic Sport Classification”; McNamee, Savulescu, and Willick, “Ethical Considerations in Paralympic Sport.” The purpose and appropriate response to doping has likewise been discussed, namely in Loland and McNamee, “Anti-Doping, Performance Enhancement and ‘the Spirit of Sport’: A Philosophical and Ethical Critique.”

<sup>30</sup> Foucault, “A Preface to Transgression.”

<sup>31</sup> Martínková, Parry, and Imbrišević, “Transgender Athletes and Principles of Sport Categorization”; Imbrišević, “Patriarchy in Disguise.”

<sup>32</sup> Vilorio and Martínez-Patino, “Reexamining Rationales of ‘Fairness’”; Torres, Lopez Frias, and Patiño, “Beyond Physiology”; Dworkin and Cooky, “Sport, Sex Segregation, and Sex Testing.”

<sup>33</sup> There is an ongoing debate in the sports ethics literature with this framing: Burke, “Trans Women Participation in Sport: A feminist alternative to Pike’s position”; Burke, “Trans Women Participation in Sport: a commentary on the conservatism of gender critical feminism”; English and Pieper, “‘This Bill Is About Fairness’: An Argument Against the Prioritization of Competitive Fairness at the Expense of Justice in US School Sport”; Imbrišević, “Patriarchy in Disguise”; Martínková, Parry, and Imbrišević, “Transgender Athletes and Principles of Sport Categorization.”

<sup>34</sup> Loland, “Classification in Sport.”

<sup>35</sup> Loland, “Classification in Sport,” 1479.

<sup>36</sup> Loland, “Classification in Sport,” 1479.

<sup>37</sup> Without entering into a protracted debate about the existing problems with empirical research regarding sexual difference in sport, I will note two important reports regarding the



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Women Athletes and Elite Sport: A Scientific Review”; Wamsley, *Social Science Literature on Sport and Transitioning/Transitioned Athletes*.

<sup>38</sup> Larned, “The Femininity Test: A Woman’s First Olympic Hurdle”, 41.

<sup>39</sup> Wamsley, *Social Science Literature on Sport and Transitioning/Transitioned Athletes*, 8.

<sup>40</sup> Wamsley, *Social Science Literature on Sport and Transitioning/Transitioned Athletes*, 7.

<sup>41</sup> Krieger, Pieper, and Ritchie, “Sex, Drugs and Science.”

<sup>42</sup> Harper, *Sporting Gender*, 38–39.

<sup>43</sup> Larned, “The Femininity Test: A Woman’s First Olympic Hurdle.”

<sup>44</sup> I am referring to specifically Beauvoir’s critique of the biological basis of sexual difference: Beauvoir, *The Second Sex*, 21–48.

<sup>45</sup> Barr, “Cytological Tests of Sex.”

<sup>46</sup> There is no clear estimate as to the prevalence of intersex people, as their prevalence depends on how intersex is defined, as outlined by Davis, *Contesting Intersex*, 3. The ‘diagnosis’ of intersexuality is in some sense implicitly defined as those who fall outside of the binary sex classification, which as this paper argues is not a natural, objective, nor scientific category, but a political one.

<sup>47</sup> Martínez-Patiño, “Personal Account.”

<sup>48</sup> International Olympic Committee (IOC), “IOC Approves Consensus with Regard to Athletes Who Have Changed Sex.”

<sup>49</sup> Harper, *Sporting Gender*, 108.

<sup>50</sup> International Olympic Committee (IOC), “IOC Consensus Meeting on Sex Reassignment and Hyperandrogenism.”

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<sup>52</sup> Semenya, *The Race to Be Myself*.

<sup>53</sup> Roberts, *Messengers of Sex*, 22–23.

<sup>54</sup> Wamsley, *Social Science Literature on Sport and Transitioning/Transitioned Athletes*, 15.

<sup>55</sup> Martínez-Patiño, “Personal Account.”

<sup>56</sup> Currah, *Sex Is as Sex Does*, 143.