Sex/Gender Testing at the Olympics and the Desire to Uphold the Sex/Gender Binary in the World of Sports

by

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Introduction

“The only thing I ever wanted was to compete in the Olympics.”

Yusara Mardini, who was a member of the Olympic Games’ first ever refugee team at the 2016 Rio Games, and her statement embodies the Olympic spirit. While some athletes, like Michael Phelps, Simon Biles, Usain Bolt, and Lindsey Vonn, bask in the limelight at the Olympics, drawing everyone’s attention in their quest to win gold for pride and country, most Olympians are just grateful to be a part of the historic event. The Olympics offer individuals, like Mardini, a chance to represent their country on the world’s biggest stage in sports, while doing something they love. When I first read Mardini’s statement, I thought to myself that this is why I love the Olympics, because the Games provide the opportunity for someone to fulfill his or her dreams. Like Mardini, I too grew up with these hopes and aspirations of one day representing and competing for my country at the Olympics. In my opinion, in the world of sports, there is no greater honor than being selected to represent your nation at the Games. However, unlike Mardini, I never achieved this goal. At a young age, I came to the same realization that many athletes had come to, that in order to make the Olympics wanting and wishing was simply not enough. Did I want it? Of course I did. But did I have the skill and mindset needed to put aside everything, including friendships, and devote my entire life to one specific sport? No. Unless you have gone through it personally, it is nearly impossible to comprehend the amount of work, dedication, and sacrifice that all

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Olympians put into their respective sports in order to compete on the world’s highest stage.

*Olympic Moments Etched in History*

On August 13, 2016, for the 23rd and what he insists is his last, Michael Phelps, the greatest Olympian of all time, stood atop the podium as a member of the gold medal winning United States (US) 4x100-meter medley relay team with tears in his eyes as he watched the American flag being raised to the rafters at the Olympic Aquatics Stadium in Rio de Janeiro, thus marking the end of an era in Olympics history. The Olympics have provided some of the most iconic moments in sports that have become engrained in our society today. You do not have to be an avid sports fan, like myself, in order to recall the everlasting moments in Olympic history, such as the “Miracle on Ice” at the 1980 Winter Olympics when the US men’s ice hockey team triumphed over their Soviet counterparts, the image of Tommie Smith and John Carlos striking what became known as the “Black Power salute” at the 1968 Mexico Games, or when, despite battling Parkinson’s, Muhammad Ali appeared at the top of the ramp at the 1996 Atlanta Games to light the Olympic Torch. These are just a few of the images etched in our minds,

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and it is precisely these kinds of moments that make the Olympics so special. While these are the stories and images that achieve iconographic status, the reality is that there are darker and more troubling parts of the Olympics that we try to ignore. One area in particular is gender inequality within the Games.

*Women in the Olympics, Grudgingly Admitted*

Discrimination against women in the Olympics is practically as old as the Olympics itself, and in fact, dates all the way back to the ancient Greeks where “females could not attend [the Games], let alone compete.” Thus, when Baron Pierre de Coubertin, the so-called “father” of the “modern Olympic movement,” founded the International Olympic Committee (IOC) in 1894 leading to the first Modern Olympic Games in 1896 held in Athens, Greece, he upheld the Greek tradition by limiting competition to only men. Coubertin asserted that the Olympics “must be reserved for men,” thus barring women from participating in the Games. Coubertin’s success in keeping women out of the Games in 1896 was short lived. By the 1900 Paris Games, women were allowed to compete. At first, this appears to be a major step towards achieving gender equality within sports, however, this was not the case. Of the 1,222 “known athletes competing” who competed across 95 events, only 22 of them were women. Not only did male athletes account for 98.2% of the competitors, but women

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6 Ibid., 15.
7 Ibid.
were limited to a select number of sports: tennis, sailing, croquet, equestrian, and golf. Of these five sports, golf and tennis were the only two that held exclusively female events. One of the main reasons why these sports were opened to women in 1900 was because they were “deemed appropriately feminine.” Upholding “Western notions of appropriate femininity,” Coubertin and the IOC, which was “led by individuals from the West,” quickly established the idea of “beauty and grace” as the norms associated with female Olympians. While there is no concrete definition of what is ‘appropriately feminine,’ the socially accepted view of Western ‘femininity’ was defined as women being “perceived as passive, weak, and subordinate” to their male counterparts. Despite women being admitted to compete in the Olympics since the 1900 Paris Games, women are still stymied by individuals, especially men, and an Olympics system which tries to maintain Coubertin’s ideology that the Olympics should be the “exaltation of male athleticism.”

_Citius, Altius, Fortius (Faster, Higher, Stronger) is Just for Men_
It has been over 100 years since women were first allowed to compete in the Olympics, and yet, gender inequality still remains a central theme at the Games. Without question, there are more opportunities for women to compete in sports today than there were back in 1900, however, there are still restrictions in terms of what events women can participate in. For instance, in the Olympics, men swim the 1500-meter freestyle while women swim the 800-meter distance.\textsuperscript{16} Another example is that men partake in the decathlon, 10 track & field events, whereas, women compete in the heptathlon, seven track & field events.\textsuperscript{17} While the IOC claims to “encourage and support the promotion of women in sport” and strives for gender equality, these discrepancies in male and female events contradict the IOC’s statements.\textsuperscript{18} It would appear as if the IOC’s motto of \textit{citius, altius, fortius}, which translates to “faster, higher, stronger,” only applies to men and not women.

Coubertin’s assertions stated above helped to establish what would later become a larger societal belief suggesting that through sports women might deviate from Western ideals of femininity and what it meant to be a woman in a patriarchal society. Over time, these ‘concerns’ and ‘fears’ raised by the men in control gained credibility as more and more women entered the sports arena and appeared to challenge the norms of femininity.\textsuperscript{19} As we will come to see, this eventually led to the introduction of sex/gender testing for female athletes in the Olympics, which is precisely what this

\textsuperscript{16} “Swimming.” \textit{International Olympic Committee}, \url{http://www.olympic.org/swimming}.
\textsuperscript{17} “Athletics.” \textit{International Olympic Committee}, \url{www.olympic.org/athletics}.
\textsuperscript{19} Throughout this thesis, the terms ‘concern(s)’ and ‘fear(s)’ are always meant to be bracketed.
thesis intends to examine. Officially speaking, sex/gender testing had a relatively short history in the Olympics, which started in 1968 and ended in 2000.²⁰ Over this roughly 34-year period, the IOC and the International Association of Athletics Federations (IAAF) maintained the ‘need’ to ‘require’ female athletes to undergo these tests. According to both federations, the objectives of the tests were to “ensure that men [did] not masquerade as women” and “protect fair competition” and a “level playing field.”²¹ In order for us to develop a better understanding of the IOC and IAAF’s position, it is important that we unpack these two objectives.

Given the attire worn by today’s athletes and the constant surveillance they are subjected to, the idea of a man masquerading as a women trying to compete in women’s events seems a little farfetched. While the probability of a man succeeding at pretending to be a woman in order to compete against other women is infinitesimal today, if taken out of context, the idea that officials would not want men masquerading seems reasonable enough since it represents a form of cheating. While it makes sense to want to preclude individuals from cheating, we must not be too quick to jump to the conclusion that sex/gender testing is good even if its intent is to catch men masquerading as women. The concerns raised by the IOC and IAAF imply that male masqueraders are abundant in sports. However, since their introduction, the sex/gender

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tests have never caught a male impersonating as a woman.\textsuperscript{22} A related problem is the fact that only women were subject to sex/gender testing. Not only was the IOC and IAAF not concerned about a woman trying to masquerade and compete as a man, but more importantly, they thought they were ‘protecting’ women through these tests.\textsuperscript{23} This implies that a woman masquerading as a man would be of little concern because it was thought that women were ‘inferior’ to men in sports, and that women’s inferiority to men meant they needed protection from men who were ‘superior’.\textsuperscript{24} As we will see throughout this thesis, the need to protect women remains one of the central justifications used by the IOC and IAAF as to why sex/gender testing should be continued.

Continuing this analysis, let us now turn our attention to the second objective the IOC and IAAF were trying to achieve through sex/gender testing: insuring ‘fairness’ and a ‘level playing field’.\textsuperscript{25} Like the idea of protecting women, the goal of establishing and maintaining fairness and a level playing field is also pervasive throughout this debate. As an athlete, I would agree that it is of the utmost importance to ensure that all athletes are competing fairly and honorably. While the argument of ensuring that all athletes compete on a level playing field sounds laudable, in a way, I find it to be somewhat comical. Apply this logic of a level playing field to any sporting

\textsuperscript{23} Throughout this thesis, the term ‘protect’ is always meant to be bracketed.
\textsuperscript{24} Throughout this thesis, the terms ‘inferior’ and ‘superior’ are always meant to be bracketed; Henne, \textit{op. cit.}, 788.
\textsuperscript{25} Throughout this thesis, the term ‘fairness’ and phrase ‘level playing field’ are always meant to be bracketed.
event whether it be little league baseball or the Olympics and try to justify these claims. One simply cannot do it. Although the rules governing the sports are the same for all the athletes, every athlete, even at the age of seven, will have some advantage or disadvantage that differentiates himself or herself from his or her fellow competitors. At the stage of elite athleticism found at the Olympics, the only way one succeeds there is by having some advantage, whether it is Phelps’ extremely long wing span, or one’s access to elite physical trainers and facilities. While the level at which these athletes are competing at is clearly much higher than what the average athlete is used to, the point is that there is no such thing as a level playing field in the Olympics because every athlete will have some advantage or disadvantage over their fellow competitors and singling out one specific thing, like testosterone, as the sole reason for an athlete’s superior performance is incomprehensible. And yet, as it currently stands, testosterone is being singled out by the IOC and IAAF as the primary cause of performance advantages among athletes, and is thus being regulated in order to achieve the goal of ensuring and maintaining fairness across a level playing field.

For nearly 80 years, some form of sex/gender testing has been conducted on women in an attempt to catch men masquerading and to maintain fairness. I find this hard to believe because while no man has ever been caught or removed from competition for masquerading, as a result of these sex/gender tests, there have been a number of cases where women, who have done nothing wrong, have been banned from competition. How is it then that as a result of these tests, women, who are not men

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masquerading as such, are still being banned from competing against other women? It is a simple question, and yet, it is precisely the one I look to answer through this thesis. In order to do so, I will undertake a close analysis of the history of sex/gender testing, which will be complemented by specific and relevant case studies of athletes that have significantly impacted sex/gender testing. Since the issue of sex/gender testing at the Olympics is still a live debate, there will not, and cannot, be a definitive end to this analysis. As a result, some of the information put forth in this thesis may or may not be relevant and or applicable in the future. Based on the history and current information we have, however, I intend to make a compelling and insightful argument that adds a new layer of analysis to a relatively new debate about an issue that has been going on for decades. Over the course of this thesis, I will argue that, in a state of constant reaction to the athletes on the part of the sports federations, the IOC and IAAF, while claiming to protect women and ensure fairness through sex/gender testing, look to use a plethora of standards, such as appearance, performance, and testosterone levels, to uphold a Western ideal of femininity, adjudicate the sex/gender of female athletes, and above all, maintain a sex/gender binary in the world of sports.
Chapter 1. Western Femininity Threatened, Testing Introduced

“Stella the Fella” Sets the Stage at the 1932 L.A. Games\textsuperscript{27}

From the moment Coubertin grudgingly admitted women to compete in the Olympics in 1900, the need to police and uphold the Western ideals of femininity became paramount. While it was important for him and his fellow male IOC officials to maintain femininity in all female sports, over time, one sport in particular, athletics, became the center of controversy. Athletics, more commonly known as Track & Field, was believed to be one of the “most prestigious and masculine of Olympic sports.”\textsuperscript{28} It was not until 1928 when women were first permitted to compete in the sport.\textsuperscript{29} Despite women’s admission to athletics, the IOC and IAAF did not embrace the idea, as it went against Coubertin’s beliefs of what the Olympics stood for as the display of “male athleticism.”\textsuperscript{30} Relatively quickly following the admission into athletics, female competitors started appearing more ‘muscular’ and ‘masculine’ and less ‘dainty’ and ‘feminine’.\textsuperscript{31} It was at the 1932 L.A. Games, where the IOC’s concerns regarding women in athletics became a reality. Competing in her first Olympics, Polish sprinter, Stanisława Walasiewicz, also known as Stella Walsh, became the first woman to break the 12 second barrier for the 100-meter distance.\textsuperscript{32} Rather than being praised for her

\textsuperscript{27} As cited in, Tucker & Collins, \textit{op. cit.}, 128.
\textsuperscript{28} Pieper, \textit{Sex Testing, op. cit.}, 33.
\textsuperscript{29} \textit{Ibid.}
\textsuperscript{30} As cited in, Lenskyj, \textit{Gender Politics, op. cit.}, 62.
\textsuperscript{31} Throughout this thesis, the terms ‘muscular,’ ‘masculine,’ ‘dainty,’ and ‘feminine’ are always meant to be bracketed.
accomplishment, Walsh was scrutinized by the media, IOC, IAAF, and fellow competitors. As a result of her pure athletic performance coupled with her “masculine appearance,” Walsh was dubbed “Stella the Fella,” which implied that there were doubts concerning her femininity. While these uncertainties were raised in ’32, at this point, they were just words. It would not be until the 1936 Berlin Games, when Walsh’s femininity would be tested.

**Hitler’s Games as the Site of the First Sex/Gender Test**

While history books may remember the 1936 Games as synonymous with Adolf Hitler, Jesse Owens, who won four gold medals, and Leni Riefenstahl’s propagandist filming of the Games, what is probably left out is the short lived rivalry between Helen Stephens of the US and Stella Walsh. Not only were these two women the preeminent female contestants in athletics at the time, but it was their rivalry that, in part, led to the introduction of sex/gender testing. Leading up to the Games, both women “accused one another of being male.” This not only helped to intensify the rivalry, but it also drew the attention of individuals, especially IOC and IAAF officials, who harbored doubts about Stephens and Walsh’s femininity. Unlike some rivalry matchups that never live up to the pre-competition hype, the 100-meter final between Stephens and Walsh did not disappoint. Stephens, in her Olympic debut, dethroned Walsh, the defending Olympic champion and current world record holder, by two tenths of a second.

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33 As cited in, Tucker & Collins, *op. cit.*, 128.
35 As cited in, Tucker & Colllins, *op. cit.*, 128.
Stephens’ time of 11.5 seconds was a new world record, but was not “ratified” by the IAAF due to a favorable tailwind.\textsuperscript{37} Regardless of Stephens’ time not being officially recognized as a new world record, the posted time drew similar attention to that of Walsh’s record breaking time four years earlier. As was the case in ’32 with Walsh’s time, “few people believed a woman could run at such a fast pace; therefore, many questioned Stephens’ sex.”\textsuperscript{38} Although Stephens’ victory was praised by her fellow Americans, especially in her hometown, these outcries made by foreigners, particularly Polish media members, regarding Stephens’ sex/gender drew attention.\textsuperscript{39} Therefore, in response to these outcries, the IOC subjected both women to a “physical exam, which they both passed.”\textsuperscript{40} This ‘physical exam’ “marked the first widely publicized sex test of the modern Olympic movement.”\textsuperscript{41} But the question still remains how did we really arrive at this point where both women needed to take a test?

\textit{Performance and Appearance Raise Doubts}

If we look at how Stephens and Walsh were viewed after the competition, what people seemed to take issue with was their performances and appearances. Although Walsh’s performance in 1932 raised concerns, for the most part, it had been written off as an outlier and more of an anomaly rather than as a potentially ‘threatening’ direction women were headed towards in athletics.\textsuperscript{42} However, by 1936, we now had a case where two women, Stephens and Walsh, were able to dominate an event. With both

\textsuperscript{37} As cited in, Pieper, \textit{Sex Testing}, \textit{op. cit.}, 11.

\textsuperscript{38} \textit{Ibid.}, 11.

\textsuperscript{39} \textit{Ibid.}

\textsuperscript{40} Tucker & Collins, \textit{op. cit.}, 128.

\textsuperscript{41} Pieper, \textit{Sex Testing}, \textit{op. cit.}, 12.

\textsuperscript{42} Throughout this thesis, the term ‘threatening’ or ‘threat’ is always meant to be bracketed.
women bettering Walsh’s time set in L.A. four years prior, there was a fear on the part of the IOC and IAAF officials that ‘these kinds of women’ might become the norm in athletics and female sports in general.\textsuperscript{43} What do I mean by ‘these kinds of women’? For one, both Stephens and Walsh were exceptionally talented athletes and posted times that had been considered unachievable by women. Although Stephens’ time of 11.5 seconds was more than a second slower than Jesse Owens’ gold medal time of 10.3 seconds in the men’s 100-meter race, her performance itself caught a lot of attention.\textsuperscript{44} In fact, her time was so fast that no woman “officially surpassed [it]…for nineteen years.”\textsuperscript{45} While Stephens and Walsh’s performances drew attention, their pure athletic abilities were not enough to warrant the physical exam. Rather, it was the attention their performances drew coupled with their appearances that played a major role in the IOC implementing the exam. Both athletes “appeared virilized, with muscle patterns and facial features more characteristic of the male sex.”\textsuperscript{46} As we already know, both women passed the physical exam and were not stripped of their medals. So why then is this early case so important? The race between Stephens and Walsh, the subsequent testing, and the outcries from the media, racing officials, and competitors all helped to establish performance and appearance as two fundamental standards that would be adopted by the IOC and IAAF as clear markers of deviant sex/gender behavior that could be easily identified as something threatening the sex/gender binary.

\textsuperscript{43} ‘These kinds of women’ is meant to reflect how the IOC and IAAF viewed Stephens and Walsh, and should not be read as my own words.
\textsuperscript{44} “Berlin 1936: 100m Men.” \textit{International Olympic Committee}, www.olympic.org/berlin-1936/athletics/100m-men.
\textsuperscript{45} As cited in, Pieper, Sex Testing, \textit{op. cit.}, 11.
The “Masculinizing Effects” of Athletics

Rather than praising women’s accomplishments in sports and supporting the growth of women competing in athletics and sports in general, women’s successes only led to further scrutiny and “fueled the fears of masculinized women and male masquerades.” Not only was there a fear that “athletics produced mannish women,” but also that athletics had a ‘masculinizing effect’ on women. In order to use this argument to further promote the need for “sex control in international sport,” the officials highlighted the examples of “female-to-male transgender competitors” to justify their point. The IOC adheres to Western notions of femininity and upholds a strict sex/gender binary, which in some ways has led to the separation of sports into either male or female categories. However, “transgender individuals sparked anxieties by blurring boundaries and demonstrating the fluidity of sex and gender,” which marked “clear challenges to the sex-segregated nature of sport.” Rather than seeing this as an opportunity to use sports to challenge the sex/gender binary, the officials balked and only perpetuated the Western social norms surrounding sex and gender. By constantly drawing attention to the idea of ‘female-to-male transgender competitors’ competing in athletics, the IOC and IAAF were able to fabricate a correlation between athletics and the desire to alter one’s sex/gender. These assertions regarding ‘female-

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48 Ibid., 33.
49 Ibid., 20; Throughout this thesis, the phrase ‘masculinizing effect’ is always meant to be bracketed.
50 Ibid., 31.
51 As cited in, Ibid., 29.
52 As cited in, Ibid., 30-31; I bracket off the phrase ‘female-to-male transgender competitors’ because this is Pieper’s language and not mine.
to-male transgender competitors’ and the masculinizing effects of athletics helped to bring about “one of the first compulsory sex/gender regulations in international competition.”53 At the 1948 London Games, in order to compete, “officials required female Olympians to submit an affidavit, signed by a doctor, certifying that they were women.”54 It can be inferred that the examination the women had to undergo to received an affidavit was not that dissimilar to the exam Stephens and Walsh underwent and was most likely based on appearance and comprised of a physical exam. Nevertheless, it is important to note the significance appearance played in these rudimentary forms of testing. Since the science and technology used to ‘determine’ sex/gender at the time was still in its infancy, an athlete’s “womanhood [was] based upon physicians’ interpretations of sex/gender,” rather than through a more regulated methodology.55 However, World War II (WWII) brought a pause to international competition and quieted talks about “ambiguous female athletes.”56

The Cold War Dominates Sex/Gender Debate

Following WWII, the revitalization of talks about the need for sex/gender testing was spearheaded by the two dominant world superpowers, the Unites States (US) and the Soviet Union (USSR). These two nations differed politically, culturally, ideologically, and socially. Despite their differences, interestingly, both nations “frequently measured progress and superiority by the status of [their] women” and

55 Throughout this thesis, the term ‘determine’ is always meant to be bracketed; *Ibid.*, 32.
“used their women to demonstrate international superiority.” Throughout the Cold War, one could see how the two countries’ ideologies regarding women differed. While in the US, “conventional white gender norms and heterosexuality—exhibited primarily through marriage, domestic work, and child rearing for women” was considered the norm, in the USSR, the Soviets believed in a “worker-mother” ideology, in which women played a central role in labor and social issues. Whereas women were treated as inferior to men in the US, in the USSR, gender equality was more of the norm. As one can easily imagine, both the US and USSR “believed that the gender and sexuality norms of the other nation were unnatural and harmful.” With the return of the Olympics following WWII, both nations quickly saw the Games as a means by which they could not only advocate their belief systems, but also establish their superiority over the other, especially through their female competitors.

*Soviet Women Threaten Western Norms of Femininity*

In 1951, the IOC recognized the USSR National Olympic Committee (NOC), and one year later, the USSR made its Olympic debut in the 1952 Helsinki Games. Of the 71 medals won by the USSR, 23 were won by women, whereas, only eight of the Unite States’ 76 medals were won by women. Although the US had edged out its new competitor in the overall medal count, the number of medals won by Soviet females, and the female competitors themselves, “raised concerns” about the ideals of

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Western femininity and “threatened Western dominance in sport.” Pieper’s point regarding ‘Western dominance’ would appear to be solely based on the number of medals won by the USSR and its women. Two sports in particular that saw Soviet domination were gymnastics and athletics. At the Helsinki Games, the Soviet women claimed the team competition gold medal in gymnastics. Over the next 40 years, the Soviet women’s gymnastics teams would go on to claim seven consecutive gold medals in the team competition. While some could try and use Pieper’s argument and claim that the Soviets were threatening the American’s dominance in gymnastics, there is no merit to this accusation for one reason. During the eight Olympiads that the Soviets dominated the team competition, the US team only medaled once, a bronze in 1992. Better yet, from 1928, when the event was first introduced, to the 1992 Barcelona Games, the last Games the USSR competed in before its dissolution, the US women had claimed a total of three medals, two bronzes and one silver. As we can see, the sport itself was never dominated by the US to begin with.

While gymnastics may have raised some concerns, once again, athletics was at the center of the debate. As we saw with gymnastics, the argument of ‘Western dominance’ falls flat at the 1952 Games since of the 27 medals in women’s athletics, the USSR claimed 11, while the US only captured one. However, the medal count is not what takes precedence. Rather, it is the idea that from a Western perspective, the

63 Ibid., 47.
65 Ibid.
66 Ibid.
67 Ibid.
68 Ibid.
Soviet women were “muscular” and “inauthentic women.” While their performances caught people’s attention, it was how these Soviet women challenged and threatened Western norms of femininity which was of the utmost concern to the IOC and IAAF. As we saw with Stephens and Walsh, once again, we are witnessing athletes raising doubts through their athletic performance and appearance. Through their “muscular builds, aggression, and power,” the Eastern Bloc women contrasted the Western norms of femininity, which “mandated slender stature, passivity, and grace.” Like Stephens and Walsh, the Soviet women, through their performance and appearance, challenged these norms of “beauty and grace” that the IOC had established and looked to uphold.

The major difference between the ’36 Games and the ’52 Games was that in ’36 it was only two female athletes, but in ’52, now it was an entire nation’s team of female athletes that was deviating from the norms. Seen as a threat to what the federations defined as femininity, the IOC and IAAF labeled these Soviet athletes as ‘abnormal’ and ‘inauthentic’ women, and thus, used this threat as further reasoning for why sex/gender testing needed to be mandated.

Women of Color Take Center Stage for US in Athletics

It is evident that the Soviet women dominated the sports deemed more masculine, but this does not explain why the US women’s performances were so poor in sports like athletics and gymnastics, when they were able to put together dominant performances.

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69 As cited in, Pieper, Sex Testing, op. cit., 46.
70 Ibid., 47.
71 As cited in, Ibid., 47.
72 As cited in, Lenskyj, Gender Politics, op. cit., 62.
73 Throughout this thesis, the terms ‘abnormal’ and ‘inauthentic’ are always meant to be bracketed.
performances in sports like diving. To put it bluntly, one of the main reasons for the US women’s lack of success was due to the fact that “female athleticism in the United States remained bounded by ideals of grace and appeal.” For the most part, during the first half of the 20th century, female sports had been reserved for middle to upper-class white women. At first, these white women only had access to sports deemed appropriately feminine, like golf or tennis, but when the opportunity to participate in other sports, like athletics, arose, very few white women opted to take part in a sport that had been deemed “too competitive, too strenuous, and too unfeminine” by physical educators. Since “conventional gender norms” had led society to “imagine the sport as a masculine pastime,” participation in athletics by white women could be regarded as ‘deviant’ behavior. With white women not willing to compete in athletics and risk being ‘othered’ by society, the US needed to find an alternative solution to compete with the Soviets and prove its superiority. And so, the country turned to women of color to lead the way in the battle on the track. Although the topic of female athletes of color and their participation in sports during the 1960’s and 1970’s is under-researched according to Lenskyj, nevertheless, it is important that we take a moment to develop a better understanding of women of color in athletics and how they were treated, for it will be a key component in later cases.

75 As cited in, Pieper, Sex Testing, op. cit., 49.
76 As cited in, Ibid., 49-50.
77 As cited in, Ibid., 50.
78 Pieper, “Maintenance of Western Femininity,” op. cit., 1561; Throughout this thesis, the term ‘deviant’ is always meant to be bracketed.
79 Throughout this thesis, the term ‘othered’ is always meant to be bracketed.
80 Lenskyj, Gender Politics, op. cit., 79.
Given the racially stigmatized views in the US at the time, women of color were seen “as being less feminine than white women.” Unlike white women, who were denigrated for merely competing let alone winning in athletics, women of color were supported in their pursuit of victory in athletics because their victories “could be interpreted not as an unnatural deviation but, rather, as the natural result of their reputed closeness to nature, animals, and masculinity.” Therefore, “[stepping] into an arena [that had been] largely abandoned by middle-class white women,” upon entering, women of color “began to blaze a remarkable trail of national and international excellence.” The impact of women of color in athletics quickly became evident for the US. In the 1956 Melbourne Games, the US claimed three medals in athletics, which were all won by women of color. Four years later in Rome, Wilma Rudolph, who helped the US earn the bronze medal in the 4x100-meter relay in Melbourne, became the first female athlete for the US to earn three gold medals at a single Olympics. While on the one hand, the emergence of women of color in sports could be seen as an opportunity to “[affirm] the dignity and capabilities of African American womanhood,” on the other hand, it could be used to affirm the Western norms of femininity and “reinforce” gendered and racial stereotypes of “black women as less womanly or feminine than white women.”

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86 Vertinsky, Patricia, and Gwendolyn Captain. “More Myth than History: American Culture and Representations of the Black Female’s Athletic Ability.” *Journal of Sport History*, vol. 25, no. 3, 1998, 533; Cahn, Susan K. *Coming on Strong: Gender and*
The Case of Dora Ratjen

In the year following the ’56 Melbourne Games, nearly 20 years after representing Germany in the 1936 Berlin Games and finishing fourth in the high jump, Dora Ratjen made international headlines by claiming that “he was actually Hermann Ratjen, a former Hitler Youth member whom the Nazis had forced to compete as a woman.”87 On July 24, 1957, the Los Angeles Times reported on the story claiming that “the federation, [IAAF,] said it later learned that Dora Ratjen was a man—not a woman—and that his name actually was Herman Ratjen.”88 Although there is still no definitive proof of whether Ratjen was in fact a man, the IOC and IAAF saw this story as a perfect opportunity to validate their reasoning behind the importance of sex/gender testing.89 Prior to this case, their concerns regarding men masquerading did not carry much weight because there had never been an actual incident of this occurring. What Ratjen’s case provided them with was the proof that their concerns were valid because it had not only happened, but the athlete had gotten away with it. While this was a crucial moment for the IOC and IAAF and provided perfect justification to why sex/gender testing needed to be implemented, testing would not be officially introduced for another decade.

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Press Sisters Are Final Straw that Lead to Sex/Gender Testing

Over the next 10 years, it was the presence of the Press sisters, Irina and Tamara, and their masculine appearances that finally led to the implementation of sex/gender testing. To make it perfectly clear, I am not saying that the Press sisters were the sole factor that led to sex/gender testing being mandated, rather, as we have seen throughout this historical analysis, they are simply just another piece to the puzzle. Based on the brief history I have provided, it would appear that there was no single case or incident that led to the decision to implement sex/gender testing. While the introduction of muscular Soviet women to the Olympics along with the Dora Ratjen case influenced the IAAF’s decision, these cases cannot be singled out as the sole justification. Rather, it is the compendium of these incidents from Stephens and Walsh undergoing a physical exam in ’36 up to the Press sisters’ masculine appearances, that finally pushed the IAAF to its boiling point on the matter of sex/gender testing. That being said, the Press sisters highlight one of the fundamental reasons behind the call for testing, and thus, they warrant a brief analysis.

In the 1960 Rome Games, both sisters captured gold medals for the USSR: Irina in the 80-meter hurdles and Tamara in the shot put.⁹⁰ Four years later in Tokyo, the sisters dominated once again. As Irina took home the gold in the pentathlon, Tamara defended her gold in the shot put and avenged her loss in the discus throw from the 1960 Rome Games.⁹¹ While their performances were praised by Soviets, their appearance invoked backlash from Westerners. Western newspapers, like the Los

⁹⁰ As cited in, Pieper, Sex Testing, op. cit., 1.
*Angeles Times* and *New York Times*, referred to the Press sisters as “Russian muscle molls,” and claimed that they were “burley” and “heftier” than “their Western counterparts.” Rather than looking at their performance, Western critics challenged and questioned the sisters’ appearances, which seemed to deviate from Western views of femininity. By not adhering to Western femininity standards it was believed that the Press sisters could not be “real women.” This raises an interesting and vital question: what actually defines a ‘real’ woman? In the USSR, the Press sisters were viewed as real women, however, since Eastern Bloc views on what ‘defined’ femininity were not widely accepted as the social norms and were in fact viewed as inauthentic, the sisters were seen as individuals who challenged the Western norms. Therefore, in order to avoid any more ambiguity and clearly define what makes a real woman, the IOC and IAAF sought to institute sex/gender testing.

**The Era of Sex/Gender Testing Begins**

30 years after Stephens and Walsh underwent the first widely publicized sex/gender test, the IAAF formally introduced mandatory sex/gender testing at the 1966 British Empire and Commonwealth Games in Kingston, Jamaica. The first standardized sex/gender test came in the form of a “nude parade.” A nude parade is literally what it sounds like. Female athletes would enter a room and be forced to strip

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93 Ibid.
94 Throughout this thesis, the term ‘real’ is always meant to be bracketed.
95 Throughout this thesis, the term ‘defined’ is always meant to be bracketed.
96 As cited in, Pieper, *Sex Testing, op. cit.*, 51.
naked in front of a panel of female gynecologists. The doctors would then analyze the athletes’ bodies, particularly the genitalia, to insure the athletes were in fact female. Analyzing in this sense does not only refer to looking, but also the physical laying of the hands on the external genitalia. While the test was simple, it clearly defined what the officials saw as the clear markers of what constituted a real woman. In their eyes, “breasts and a vagina were all one needed to certify one’s femininity.”

So as long as the noticeable presence of breasts and a vagina were there, a female athlete need not worry about her femininity. Since the nude parade was solely based on appearance and the need to ‘fit’ within what was accepted as a ‘normal’ female body, this early form of sex/gender testing helped to establish the importance appearance would play in the identification of ‘authentic’ female bodies.

Not only did the nude parades help establish the IAAF’s definition of femininity and real women, but they also seemed to do precisely what the IOC and IAAF hoped they would do, namely thwart away men trying to masquerade as women. In 1967, one year after the introduction of sex/gender testing, the Press sisters, along with other Eastern Bloc female athletes, retired from competition.

Although Tamara Press defended her decision to retire by claiming that she had “devoted more than 10 years

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98 Lenskyj, Gender Politics, op. cit., 111.
99 Ibid.
100 Ibid.
102 Throughout this thesis, the terms ‘fit,’ ‘normal,’ and ‘authentic’ are always meant to be bracketed.
of [her] life to sports,” and that she wanted to “ced[e] [her] place...to young sportswomen...[and] help [her] successors,” many Westerners drew a very different conclusion to her and her sister’s abrupt retirement.\(^\text{104}\) As the *Chicago Tribune* pointed out, neither Tamara nor Irina “[had] appeared in any international event where sex tests [were] applied since such tests have been instituted.”\(^\text{105}\) The newspaper is insinuating that the Press sisters had not competed in any competition where the tests were being used because they knew that they would not only not pass the test, but also that it would be found out that they were in fact men. Regardless of how the Press sisters defended themselves, the ill-timed retirement was interpreted by Westerners that the sisters were men. Although, at least to my knowledge, there is no definitive information that says the Press sisters were men masquerading as women, they were not given the benefit of the doubt and had been immediately assumed to be men as a result of their decision to retire. Therefore, in the eyes of the IOC and IAAF officials, the implementation of the sex/gender tests in the form of the nude parades were doing their job by deterring away men who were trying to compete as women.

*Backlash Sets In*

Despite the apparent early success, the nude parades had in eliminating male imposters in women’s sports, it was not long before the IAAF received extensive backlash and criticism from female athletes. British Olympian, Mary Peters, recounts the nude parade as “the [crudest] and degrading experience I have ever known in my


\(^{105}\) Ibid.
In a process that saw female athletes being forced to strip naked and essentially being “groped” by a doctor in front of other athletes, it is difficult to put into words how the athletes felt as they were going through these tests. A “crude, [degrading,] and humiliating” form of testing for women, the IAAF quickly felt the pressure mounting as female athletes turned to the public and “expressed their humiliation over the manner in which they were being evaluated” through this early form of sex/gender testing.

Having yet to introduce its own form of testing, the IOC took note of the criticism as it devised its method of testing.

Chromosomes Become King, or in this Case, Queen

Less than two years into the era of sex/gender testing, and the IAAF was already receiving heat for its testing. What needs to be clarified is that it was not the idea of testing that women and the larger society had issues with, but rather the form of testing itself. Given the history of the masculine appearing Eastern Bloc women and the fear of male imposters, most people, including the female athletes, appeared to be in favor of sex/gender testing, just not in the degrading and objectifying form of the nude parades. And so, in a reaction to the outcries, the IOC decided, after using the 1968 Grenoble Winter Games as a trial run, to formally introduce its sex/gender testing at the 1968 Mexico City Games. Rather than relying on appearance and a doctor’s “interpretation” of sex/gender as the IAAF’s nude parades did, the IOC’s sex/gender testing looked to “scientifically confirm the separation of men and women in athletic

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106 As cited in, Pieper, Sex Testing, op. cit., 51-52.
107 As cited in, Ibid., 52.
108 As cited in, Gandert et al., op. cit., 402; As cited in, Pilgrim et al., op. cit., 509.
competition as well as to guarantee the authenticity of participants” through an analysis of chromosomes.\(^{110}\) This chromosomal analysis came in the form of what is known as a Barr body test, also called a “sex chromatin test” or “buccal smear test,” and was quickly accepted by the IOC, IAAF, and the athletes as a viable alternative for sex/gender testing.\(^{111}\)

Considered a “less invasive method” of testing compared to the nude parade, the Barr body test consisted of having the inside of one’s mouth swabbed in order to collect cells.\(^{112}\) Rather than trying to explain how the test is administered and its scientific basis, for our purposes, all we need to know is that if the test for Barr bodies is positive, “then a test subject has more than one X chromosome.”\(^{113}\) So what does that mean? To put this in the simplest way possible, a woman, with a normal chromosomal makeup of XX, should pass the Barr body test since she has two X chromosomes, while a man, with a normal XY structure, should fail the test since normally men have only one X chromosome.\(^{114}\) However, we must remember that male athletes never took the Barr body test, so, we need only concern ourselves with what the test results were for women. If a female athlete passed the Barr body test, she was awarded a “femininity certificate and any doubts concerning her womanhood were laid to rest.”\(^{115}\) However, if a woman failed the test, as a result of a poorly conducted test or a medical 'condition,’ the athlete would then be asked to undergo further testing,

\(^{111}\) As cited in, Gandert et al., *op. cit.*, 402.
\(^{112}\) Henne, *op. cit.*, 800; Gandert et al., *op. cit.*, 402.
\(^{113}\) As cited in, Gandert et al., *op. cit.*, 403.
\(^{114}\) As cited in, *Ibid*.
\(^{115}\) As cited in, Pilgrim et al., *op. cit.*, 510.
which could include blood sampling and a gynecological exam.\textsuperscript{116} While it is precisely these non sex/gender binary conforming chromosomal structures that directly challenge the IOC’s perpetuation of the use of the Barr body test to determine sex/gender, we will put that aside for the moment and return to it later in this thesis. What is essential for us to understand is that through the Barr body test, the IOC was “establish[ing] a new definition of femaleness.”\textsuperscript{117} Through science, the IOC had adopted a new standard through which to define the essential characteristic that was inherent in real woman. If a woman did not have XX chromosomes, then according to the IOC’s definition, she was not an authentic or real woman and therefore, could not compete as one.

Although the IOC is clearly creating its own definition of femininity through its use of the Barr body test, this garnered little attention because the Barr body test was simply seen as a more ‘humane’ form of testing compared to the nude parades.\textsuperscript{118} Despite the issues the nude parades raised in terms of the objectification of the female body, it was still widely accepted that there needed to be some form of sex/gender testing. By eliminating the nude parades as the primary standard of sex/gender determination, the IOC and IAAF were able to reassure the athletes that this new mandatory sex/gender test, in the form of the Barr body test, was solely being used to catch men masquerading and to ensure fairness and maintain a level playing field. Unlike, during the nude parades where these objectives had been overshadowed by the

\textsuperscript{116} Throughout this thesis, the term ‘condition’ is always meant to be bracketed; As cited in, Pilgrim et al., \textit{op. cit.}, 510.

\textsuperscript{117} As cited in, Pieper, \textit{Sex Testing}, \textit{op. cit.}, 62.

\textsuperscript{118} Throughout this thesis, the term ‘humane’ is always meant to be bracketed.
discontent that arose due to the method of testing, now the IOC and IAAF’s goals were once again made clear. Adhering to what was at the time believed to be scientifically accepted knowledge, the use of the Barr body test to police sex/gender remained relatively unchallenged and drew little criticism for the next 20 years. Ironically, as we will see in the next chapter, it was the medical community itself that eventually challenged and encouraged the IOC and IAAF to change its views on sex/gender testing following the case of Spanish hurdler, María José Martínez-Patiño.
Chapter 2. Sex/Gender Testing Challenged and “Abolished”

In 1948, micro-anatomist Murray Barr, with the help of graduate student Ewart Bertram, discovered the presence of a “darkly stained mark within the nucleus of neurons” of female cats and not male cats. In his publication found in the journal *Nature*, Barr stated “a preliminary examination of sympathetic ganglia of human males and females indicates that a similar sex difference in nuclear morphology exists in the human.” As a result of his discovery, this mark was identified as a “Barr body.” Also known as a “sex chromatin,” the Barr body became “the main signifier of sex.”

Less than a decade after his discovery, in 1956, Barr published an article in *The Lancet* where he urged medical experts to act with “caution and diplomacy” when it came to determining sex/gender. Barr proclaimed that “the presence or absence of sex chromatin…[was] a minor detail in the femaleness or maleness of the whole person,” thus suggesting that chromosomes are only a small piece of the puzzle that help identify the “femaleness or maleness” of an individual. While the Barr body had been accepted as the ‘main signifier of sex,’ Barr was asserting that under no circumstances should the presence or absence of a Barr body be the sole justification in determining an individual’s sex/gender. Despite Barr’s cautionary remarks, 12 years later, the IOC

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122 As cited in, *Ibid*.
123 As cited in, *Ibid*.
and IAAF adopted the Barr body test as the sole means to determine sex/gender. Ignoring Barr’s proclamation, the IOC and IAAF saw the presence or absence of a Barr body as something that “supported a clear-cut sex division.”\textsuperscript{125}

Implemented as the primary method of sex/gender testing in 1968, the Barr body test went relatively unchallenged for roughly the next 20 years. For the most part, the only thing that actually changed was the name of the test itself. In part “to better relay the purpose of the chromosome test,” the name of the test went from “sex check” to “femininity test” to “gender verification.”\textsuperscript{126} Although the test remained unchanged and there was little to no backlash or widely publicized cases of female athletes failing the test, this does not mean that individual cases did not occur. On the contrary, in 1988, the IOC’s chief of testing, Eduardo Hay, estimated that “one or two women [had] been banned at each Olympic Games, except for one since 1968.”\textsuperscript{127} If we are to assume that Hay is only referring to women that had been banned at Summer Olympics during this period, then he is suggesting that over a 20-year period, during which six Summer Games occurred, roughly 10 women were banned from competition. While it is difficult to verify how accurate this number is, this raises the question why did the public rarely, if ever, hear about the banishment of these female athletes? In order to answer this question, I would like to now turn our attention to the case of Spanish hurdler, María José Martínez-Patiño (hereafter Patiño).

\textit{The Early Case of María Patiño}

\textsuperscript{125} As cited in, \textit{Ibid.}  
\textsuperscript{126} As cited in, \textit{Ibid.}, 129.  
\textsuperscript{127} As cited in, Elsas et al., \textit{op. cit.}, 250.
In 1983, Patiño competed at the first IAAF World Championships in Athletics in Helsinki where she received her “Certificate of Femininity” (hereafter Certificate) for passing the sex/gender test.\textsuperscript{128} Passing the sex/gender test meant that Patiño would never have to submit to further testing as long as she had her Certificate. Two years after Helsinki, Patiño represented Spain at the 1985 World University Games in Kobe, Japan.\textsuperscript{129} Unfortunately, Patiño had forgotten her Certificate, and therefore, was required to retake the Barr body test to confirm the presence of two X chromosomes, and thus reaffirm her femininity.\textsuperscript{130} Having already passed the test two years before, and given the fact that one cannot alter one’s chromosomes, the test seemed routine with the results predictable. However, something had gone wrong, and it had been determined by the officials that Patiño had failed the sex/gender test.\textsuperscript{131} All her life, Patiño grew up thinking that she was a normal woman.\textsuperscript{132} In fact, Patiño “looked like a woman, had a woman’s strength, and never had reason to suspect that she wasn’t a woman,” and yet, in the eyes of the IOC and IAAF, she was “not a woman.”\textsuperscript{133} As a result of the second Barr body test, it was determined that Patiño did not have the normal female chromosomal makeup of two X chromosomes. Thus, she would be ineligible to compete. In order to avoid public scrutiny that was bound to occur if her failed test was made public, event officials advised Patiño “to feign a warm-up injury

\textsuperscript{129} Ibid.
\textsuperscript{130} Ibid.
\textsuperscript{131} Ibid.
\textsuperscript{132} Ibid.
\textsuperscript{133} Fausto-Sterling, op. cit., 1.
and withdraw from competition.”\textsuperscript{134} Most likely, at least partly due to shock of the news, Patiño did as she was told, faked an injury, and pulled out of the competition.

While the idea of faking an injury and withdrawing from competition was new for Patiño, this advice was “consistent with tactics allegedly designed to protect the athlete’s privacy and to manage the psychic trauma certain to result from publicity.”\textsuperscript{135} Like her fellow competitors before her, Patiño was encouraged to either “withdraw gracefully from competition on [her] own or agree to undergo follow-up gynecological and clinical examination.”\textsuperscript{136} With these being the only two viable options, Patiño heeded the advice to “self-disqualify” herself under the assumption that the IOC and IAAF were thinking in her best interests.\textsuperscript{137} Rather than being lost to history, which had happened to most women who had failed the test, upon her return to Spain after the 1985 World University Games, Patiño sought the expensive advice of doctors regarding her situation.\textsuperscript{138} It was confirmed that Patiño had XY chromosomes, however, the doctors also discovered that she had a “conditioned called androgen insensitivity [syndrome] [AIS].”\textsuperscript{139} According to Anne Fausto-Sterling:

\begin{quote}
This meant that, although she had a Y chromosome and her testes made plenty of testosterone, her cells couldn’t detect this masculinizing hormone. As a result, her body had never developed
\end{quote}

\textsuperscript{135} \textit{Ibid.}, 138.
\textsuperscript{136} Elsas et al., \textit{op. cit.}, 250.
\textsuperscript{137} As cited in, \textit{Ibid}.
\textsuperscript{138} Fausto-Sterling, \textit{op. cit.}, 2.
male characteristics…Despite a Y chromosome and testes, she had grown up as a female and developed a female form.140

With the expert’s results in hand, Patiño began training again, and in 1986, she entered the “national championships.”141

Just prior to the start of her race, Patiño was once again told to “feign an injury and to withdraw from racing quietly, graciously, and permanently.”142 Just like before, the IOC and IAAF return to this idea of ‘graciously’ withdrawing from competition, which can be viewed as a subtle way on the part of the IOC and IAAF of gendering the process of withdraw.143 Despite not being seen as a woman in the eyes of the IOC and IAAF, they are suggesting that Patiño act like a gracious woman and succumb to the male dominated federations. By using words such as ‘quietly’ and ‘graciously,’ it is meant to imply that this is the way a normal female athlete leaves the sporting arena. If Patiño wanted to reestablish her femininity, all she had to do was stay quiet, give up sports, and not challenge the system. Rather than following the officials’ advice, Patiño decided to compete.144 After finishing first in the 60-meter hurdles, rather than celebrating her victory, Patiño immediately received the ultimate degradation: her story had been “leaked to the press” by the IOC and IAAF.145 As one can imagine, the story that Patiño had failed the sex/gender test and competed as a man spread like wildfire. The results were catastrophic. Patiño was “evicted from the national athletic residence,” her “sports scholarship was revoked,” she was stripped of her previous titles, her times

140 Fausto-Sterling, op. cit., 2.
141 Jolly, op. cit., 248; Martínez-Patiño, op. cit., S38.
142 Martínez-Patiño, op. cit., S38.
143 Throughout this thesis, the term ‘gracious’ is always meant to be bracketed.
144 Ibid.
145 Ibid.
were erased from Spain’s “athletics records,” she lost friends, her fiancé left her, and
she was barred from any future competition.\textsuperscript{146} Everything she knew about herself and
had accomplished in her life had been questioned and taken away, except for one thing.
Despite everything she had gone through, Patiño “knew that [she] was a woman, and
that [her] genetic difference gave [her] no unfair physical advantage.”\textsuperscript{147}

Through the use of ‘tactics’ that encouraged ‘unnatural’ women to leave the
world of sports quietly in order to draw as little attention to themselves, the IOC and
IAAF were able to maintain the effectiveness and reliability of the sex/gender testing
to achieve the goals of protecting women from men masquerading and upholding
fairness.\textsuperscript{148} However, this silencing of female athletes became the center of debate
when Patiño ignored the IOC and IAAF’s demands and instead, decided to compete in
her race. As is evident, the layperson and media took the word of the officials, assumed
Patiño was in fact a man, and therefore, as we have already seen, ruined her life at the
time.\textsuperscript{149} However, for someone with a more vested interest in sex/gender testing, say a
medical expert, Patiño’s case drew immediate attention and raised serious doubts about
the reliability of these tests especially when “sex chromatin analysis as used for gender
verification [had] not been fully reliable and, in fact, [had] long been abandoned by the
genetic community.”\textsuperscript{150} In a way, one could make the argument that the federations

\textsuperscript{146} Ibid.; As cited in, Fausto-Sterling, op. cit., 1.
\textsuperscript{147} Martínez-Patiño, op. cit., S38.
\textsuperscript{148} Throughout this thesis, the term ‘unnatural’ is always meant to be bracketed.
\textsuperscript{149} Ibid.
\textsuperscript{150} Ljungqvist, Arne, and Joe Leigh Simpson. “Medical Examination for Health of All
Athletes Replacing the Need for Gender Verification in International Sports: The
International Amateur Athletic Federation Plan.” \textit{JAMA}, vol. 267, no. 6, 12 Feb.
1992, 851.
brought the ensuing debates regarding the validity of the Barr body test as a determinant of sex/gender on themselves by leaking the information that Patiño had failed the sex/gender test. Regardless of who was to blame, Patiño’s case had been made public and as a result, the IOC and IAAF were now being forced to answer and justify the all important question: why was a woman, although found to have XY chromosomes, being banned from competition as a result of her sex/gender test, given the fact that she was not a man masquerading?

Patiño Challenges the IOC and IAAF

Spending the next two and a half years of her life seeking further medical expert advice and undergoing additional examinations, Patiño became the “first woman to ever challenge sex testing for female athletes.”\(^{151}\) In 1986, Finnish geneticist, Albert de la Chapelle, who worked closely with Patiño to help argue and win her case, published his article “The Use and Misuse of Sex Chromatin Screening for ‘Gender Identification’ of Female Athletes” in *The Journal of the American Medical Association (JAMA).*\(^{152}\) As an “early, vocal opponent of blanket chromosome testing,” de la Chapelle used the article to publicly denounce the use of chromatin testing to define the sex/gender of female athletes.\(^{153}\) De la Chapelle, begins his article by pointing out one of the fundamental flaws of the testing. According to him, “the aims of “gender verification” testing have not been explicitly stated.”\(^{154}\) While he does

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\(^{151}\) Fausto-Sterling, op. cit., 2.


\(^{153}\) Martínez-Patiño, *op. cit.*, S38.

\(^{154}\) As cited in, de la Chapelle, *op. cit.*, 1920.
acknowledge that the aims of the test “are generally assumed to be to exclude males and other competitors whose body structure or muscle strength are of male type or otherwise abnormally strong so as to confer on them an unfair advantage over female competitors,” he objects to the assertion that chromosomes are a cause of these factors.\textsuperscript{155} As a result of his analysis, de la Chapelle asserts that “the fundamental failure of the sex chromatin screening of female athletes is that it determines the least relevant parameter of sex in this context, i.e., chromosomal sex.”\textsuperscript{156}

Although not directly referring to Patiño’s case, in order to defend his argument, de la Chapelle relies on examples of female athletes with AIS and other conditions who would fail the Barr body test and yet derive no competitive advantage from having a chromosomal makeup not found in normal women. Even though, de la Chapelle is still pathologizing these conditions by labelling them, and the women who have them, as abnormal, which upholds the sex/gender binary, the premise of his essay remains the same. He is not looking to challenge the binary, but rather, to illustrate the flawed nature of using chromosomes to identify sex/gender. To this point, he highlights that as a result of the “technical difficulties and errors of interpretation,” the “method has been abandoned by most clinicians and researchers for screening of individuals with abnormalities of sex differentiation.”\textsuperscript{157} Therefore, this raises another key question: if medical and scientific experts have abandoned this form of testing as the primary assessment in labeling a body as male or female, then why are the IOC and IAAF still using it?

\textsuperscript{155} As cited in, \textit{Ibid.}
\textsuperscript{156} As cited in, \textit{Ibid.}, 1922.
\textsuperscript{157} As cited in, \textit{Ibid.}, 1921.
Feeling the pressure from Patiño, de la Chapelle, and other medical experts, in 1988, Arne Ljungqvist, the medical chairman of the IAAF, reinstated Patiño, which made her the first female athlete ever to “be reinstated.” Following her reinstatement, Patiño restarted her training in an attempt to make the Spanish Olympic team for the 1992 Barcelona Games. Unfortunately, the time away from training and the mental and physical toll she endured over this nearly three-year period were too much, and the fairytale ending comeback story never came to fruition as Patiño “missed the mark at the trials by ten hundredths of a second.” Despite her failed attempt at a comeback, Patiño won the more important race against the IAAF and IOC. She had taken on the male dominated IOC and IAAF on the issue of sex/gender testing and emerged victorious. Patiño’s case marks a quintessential turning point in the history of sex/gender testing, and it is her case that “helped to trigger the end of chromosome-based testing.”

*IAAF Sees the Need to Reform*

“Realizing both the discomfort of the medical and scientific community concerning the continued use of sex chromatin testing” and feeling the need to respond to Patiño’s case in a positive and constructive manner, in November of 1990, the IAAF convened in Monte Carlo, Monaco to discuss the future of sex/gender testing within athletics. The discussions, which were spearheaded by Ljungqvist, led to the IAAF concluding that the use of the Barr body test to determine the eligibility of a female

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158 Martínez-Patiño, *op. cit.*, S38; As cited in, Fausto-Sterling, *op. cit.*, 2; As cited in, Elsas et al., *op. cit.*, 250.
159 Martínez-Patiño, *op. cit.*, S38.
athlete was not satisfactory in achieving its purpose. While the “the purpose of gender verification is to prevent normal men from masquerading as women in women’s competition,” it was believed that this goal had been lost over the years.\textsuperscript{162} While Ljungqvist acknowledged that this had been a primary concern for decades, he suggested that this goal was achievable through the use of drug testing. Since it was required that “voiding of urine be carefully watched by an official to make certain that urine from a given athlete actually comes from his or her urethra,” Ljungqvist is implying that this observation can take the place of sex/gender testing if the sole concern is still with men masquerading.\textsuperscript{163} Another point that Ljungqvist made at the time was in regards to the attire worn by the athletes in competition.\textsuperscript{164} With the constant innovation in technology to improve aerodynamics and reduce wind resistance, the attire worn by athletes, especially females in short distance athletics events, became ever tighter and clung to the body. Essentially running in nothing but a bikini, an observer could make out a female athlete’s nipples or even her vulva. While with the men, one could identify the outline of the competitor’s penis as a result of him wearing compression shorts. Although the imagery might seem inappropriate, it is essential to the argument. In both these cases, what is being suggested are alternative methods to catch men masquerading as women. While observing all bodies during drug testing and the attire worn removes the need to use subjective sex/gender testing, the

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\textsuperscript{163} Ljungqvist & Simpson, “Health of All Athletes,” \textit{op. cit.}, 852.

\textsuperscript{164} Simpson et al., “Competitive Sports,” \textit{op. cit.}, 311.
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problem that arises is that in both cases, we are essentially reverting back to the era of nude parades.

With these two arguments about drug testing and attire being accepted, Ljungqvist claimed that one of the goals of the Monaco meetings was, “to issue proposals and recommendations to international sports bodies” regarding different methods of testing and to raise the question of whether testing was needed at all.\textsuperscript{165} Despite the group’s preference that “gender verification testing should be abandoned,” it was still believed that a form of testing was still needed “as long as concerns exist about men masquerading as women.”\textsuperscript{166} Therefore, it was proposed that a “medical examination for the health and well-being of all athletes” be implemented.\textsuperscript{167} The primary purposing of this so-called “health check” was “to ensure satisfactory physical status for competition and would, of course, include simple inspection of the external genitalia.”\textsuperscript{168} This decision to move to health checks can be viewed both positively and negatively. It can be considered positive in the sense that chromosomal based testing had been abandoned due to its unreliability. Another positive is the fact that for the first time in the history of testing, both men and women were being subject to testing.\textsuperscript{169} In some ways, one could then make the argument that a level of equality was being established between men and women regarding testing, however, this argument does not really get at the root of the problem and explain why this health check only lasted

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  \item \textsuperscript{165} Ljungqvist & Simpson, “Health of All Athletes,” \textit{op. cit.}, 851.
  \item \textsuperscript{166} \textit{Ibid.}, 852.
  \item \textsuperscript{167} \textit{Ibid}.
  \item \textsuperscript{168} \textit{Ibid}.
  \item \textsuperscript{169} As cited in, Pieper, \textit{Sex Testing, op. cit.}, 150.
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for a year before the IAAF had to reconsider testing again. Thus, we must turn to the negatives that came out of this decision to move to health checks for all athletes.

While Pieper explains that complaints to this form of testing stemmed in part as a result of the new “protocols...not fully [being] explained,” the main critiques surrounding the testing had to do more with the test itself and the fact that the health check had been quickly put into practice at the 1991 IAAF World Championships in Tokyo, Japan.\(^{170}\) For some, it was believed “ridiculous” to have men also undergo the physical exam because “it was all about equality,” and that “if you’re going to degrade women you might as well degrade men as well.”\(^{171}\) This logic is interesting because it points to the understanding that there has never been a reason to test men other than to maintain the equality of degradation. While Hurst does not say it, he is implying that there is not a concern of women masquerading as men because even if women did succeed in doing this, since they are inferior to men, they will not pose a competitive threat to men. Another issue the IAAF was faced with regarding its newly adopted health check was that this “peak-and-probe” examination of the female genitalia was not only “offensive and demeaning” to women, but it also was “a step back in time for women.”\(^{172}\) Clearly referring to early forms of sex/gender testing when women had to parade naked in front of a panel and were subjected to a physical examination of the genitalia, the argument being made is that rather than being ‘progressive,’ Ljungqvist and the IAAF were returning to a more archaic and degrading form of testing.\(^{173}\)

\(^{171}\) As cited in, Pieper, Sex Testing, op. cit., 150.
\(^{172}\) As cited in, Ibid., 150-151.
\(^{173}\) Throughout this thesis, the term ‘progressive’ is always meant to be bracketed.
Medical Community Reacts to Health Check

In response to the IAAF’s decision to move to health checks, Dr. Jean D. Wilson from the Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, claimed, “the [IAAF] should be commended for selecting a plan that substitutes medical examination for buccal smears. This plan constitutes a genuine reform in amateur athletics.”\(^{174}\) While acknowledging that “all forms of sex testing carry the potential of doing harm because many affected individuals do not know their underlying diagnosis,” Dr. Wilson claims that of the available forms of testing, chromosomal composition, endocrine testing, or physical examination, “physical examination is the preferable means.”\(^{175}\) It is almost comical to think that someone would make the claim that a physical exam ‘constitutes a genuine reform’ within the world of sex/gender testing and sports. In making such a statement, Dr. Wilson comes across as naïve when one considers the history of sex/gender testing and how the nude parades were considered by many as the most inhumane form of testing. Many female athletes even welcomed the Barr body test because it was a less ‘invasive’ test compared to the nude parades.\(^{176}\) Furthermore, it appears that Dr. Wilson completely ignores this part of history. In concluding his praise of the steps taken by the IAAF, Dr. Wilson still urges the IAAF to continue paving the way for other sports federations by stating that “this reform represents only a first step forward in the change that is needed, namely, the abolition of sex testing in athletic competitions.”\(^{177}\)


\(^{175}\) Ibid.

\(^{176}\) Throughout this thesis, the term ‘invasive’ is always meant to be bracketed.

\(^{177}\) Wilson, *op. cit.*, 853.
The IAAF Reconvenes

In response to the outcries made about the health check implemented in 1991, in 1992, the IAAF reconvened to once again ask the question of whether the sex/gender tests were still needed. Concluding that “probably there will never be a laboratory test that will adequately assess the sex of all individuals,” Ljungqvist and the IAAF decided to put an end to compulsory testing and “abandon sex testing at their competitions.”

However, there is a caveat worth mentioning that I will return to later. The IAAF “still retain[ed] the option of assessing the gender of a particular participant should suspicions arise.” Following the lead of the IAAF, many of the other “International Federations of Olympic Sports” decided to abandon sex/gender testing at their respective world championships. As a result of Ljungqvist’s progressive nature, the IAAF came across as the pioneering figure in this trend away from compulsory testing. However, there was one major organization that remained steadfast in its decision to continue testing: the IOC. Thus, 1992 not only marks a significant turning point regarding the end of testing in athletics, but it also represents a clear separation between the two ideologies of the IAAF and IOC.

The IOC and IAAF Take Separate Paths

For the most part throughout the history of sex/gender testing, the IOC and IAAF remained on the same page, always trying to find new ways to police sex/gender and uphold the ideals of femininity. But by 1992, the two federations could be seen in

178 Simpson et al., “Competitive Sports,” op. cit., 313; Ljungqvist, Gender Verification, op. cit., 188.
179 As cited in, Simpson et al., “Gender Verification in the Olympics,” op. cit., 1569.
180 As cited in, Ibid.
opposition. While the IAAF and Ljungqvist were viewed as progressive, the IOC and the IOC Medical Commission, chaired by Prince Alexandre de Mérode, were cast as an antiquated regime trying to defend an argument that had already been lost. In its attempts to not lose sight of its goals and stay relevant in the times, the IOC, like the IAAF, decided to reevaluate its form of testing. As we already know, following the Patiño debacle, the IAAF abandoned chromosomal testing, moved to a health checks, and finally abolished sex/gender testing over a span of roughly four years. Like the IAAF, the IOC also felt the pressure from the medical community in the wake of Patiño’s case, however, unlike the IAAF, the IOC still deemed it necessary to continue mandatory sex/gender testing. And so, as we have seen on multiple occasions, the IOC reacted and dealt with the issue by implementing a new test in the form of a polymerase chain reaction (PCR) test.

The IOC Goes to PCR Testing Rather than Abolishing Sex/Gender Testing

Introducing the PCR test at the 1992 Winter Olympics in Albertville, France, the IOC immediately received protests from the medical community and other sports federations. The PCR test, which was “considered to be a superior, scientific method of determination,” focused “on the genetic makeup of the Y chromosome.” Whereas with the Barr body test, women had to “prove they were “female”” through the presence of X chromosomes, now they were being asked to “prove that they were “not male,””

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181 Pieper, Sex Testing, op. cit., 137.
182 Elsas et al., op. cit., 251.
which would be identified through the presence of a Y chromosome.\(^{185}\) While the name of the test and what chromosome being looked at had been altered, essentially, this is all that the IOC had changed. The IOC was still using chromosomes in an attempt to determine whether or not a woman was in fact a woman. Despite the claims of it being the more ‘scientific’ test, ironically, the PCR test is believed to be even less reliable than the Barr body test as a result of its sensitivity.\(^{186}\) In the article titled “Gender Verification in Competitive Sports,” Joe Simpson, Ljungqvist, and de la Chapelle, who are three prominent figures opposed to the continued use of sex/gender testing, critique the IOC’s use of PCR testing. “Vexed by [the IOC’s] decision,” these authors argued that one of the main problems with PCR testing was that “the sensitivity of PCR-based testing for Y sequences is so great that the presence of male cells floating in the air or located on vessels or in reagents often results in false-positive results.”\(^{187}\) At first, it seems odd that these authors would argue this as a reason for why not to use the test. Then again, we have to remember this test is not being performed in a sterile laboratory setting, but rather, at a designated location in the Olympic compound where the potential for contamination of a sample was much greater. Part of the appeal of the PCR test was no doubt due to the rapidness of the screening process.\(^{188}\) Faced with having to test hundreds upon hundreds of athletes in a relatively short period of time, the PCR test offered the IOC a viable solution However, the IOC medical staff officials may have overlooked the necessary precautions to insure no tampering of the test


\(^{186}\) Throughout this thesis, the term ‘scientific’ is always meant to be bracketed; Simpson et al., “Competitive Sports,” *op. cit.*, 313.


\(^{188}\) Elsas et al., *op. cit.*, 251.
results could occur which would have been easier to enforce and assure in a laboratory based setting.

In their argument against PCR testing, Simpson et al are most critical of PCR testing for a Y sequence because it “misses the point.”\(^{189}\) According to the authors, this argument centers on the idea that “even if a molecular method had a nonexistent error rate, it would still remain only a test for a DNA sequence, not a test for sex or gender.”\(^{190}\) What they are claiming here is that even if one could find a test that would account for every form of chromosomal makeup in the world, that test would still only tell us the number of chromosomes in an individual and in no way, shape, or form tell us anything about the individual’s sex or gender. This approach sounds so progressive because it appears as if Simpson et al are finally moving away from the assumption that chromosomes equate to one’s sex/gender. However, they still identify the Y chromosome as “the main candidate gene for male sex determination,” thus maintaining this idea that chromosomes can still determine sex/gender.\(^{191}\) While these authors had concluded that a single test to “adequately assess the sex of all individuals” would never be discovered, as they also point out, it appears the IOC was naïve enough to still believe in such a fantasy which was highlighted by the federation’s decision to move to PCR testing rather than abandon testing.\(^{192}\)

*The Medical Community Takes a Stand Against the IOC*

By 1996, the pressure on the IOC was mounting as:

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\(^{189}\) Simpson et al., “Competitive Sports,” *op. cit.*, 313.

\(^{190}\) *Ibid.*

\(^{191}\) *Ibid.*

virtually all major US medical societies had passed resolutions calling for the elimination of gender verification at Olympic Games. These societies included the AMA, AAP, ACP-ASIM, The American College of Obstetrics and Gynecology, The Endocrine Society, Lawson Wilson Pediatric Endocrine Society, and the American Society of Human Genetics.¹⁹³

This is unprecedented. The fact that all these medical societies passed resolutions calling for the end of ‘gender verification at Olympic Games’ speaks volumes to the unethical nature of these forms of testing. What is even more remarkable, and in even baffling, is that despite the consensus from this body of medical societies, which are devoted to studying and administering these kinds of tests, “the IOC remained convinced that genetic-based screening was [still] necessary for protection against male imposters.”¹⁹⁴ We must therefore ask the question: why does the IOC remain steadfast in its belief of the necessity to maintain and continue the use of ‘genetic-based’ testing and sex/gender testing in general?

*The IOC Maintains the Need to Test Despite Medical Advice*

While the IOC, like the IAAF, had come to the realization that the chromosomal based testing the federation had been using for roughly the past 20 years was no longer sufficiently reliable, rather than abolishing the use of testing as the IAAF did, the IOC, chose to continue testing because it was still under the impression that “screening for female gender [was] important for the integrity of the Olympic Games.”¹⁹⁵ It is somewhat difficult to fathom why or how members of the IOC felt the ‘integrity’ of the Games was being challenged when women were in fact being banned from

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¹⁹³ As cited in, Elsas et al., *op. cit.*, 251.
competition. According to the IOC Medical Commission, “the tests [had] succeeded in removing scandal and innuendo from international sport.”

Over the years, the IOC has maintained that a fundamental reason for the tests is to catch men masquerading as women, but as Ljungqvist pointed out at the IAAF meeting in Monaco, this is already being taken care of via drug testing and the skin tight performance attire worn by athletes. So if the objective of catching male masquerades seems to fall flat as justification for the continued use of testing, then there must be something else that warrants the use of the tests. And in fact there is, but from the unlikeliest of all places: the female athletes themselves. One would think that given the dehumanizing and unethical nature of these tests that female competitors would not want to be tested. The problem was that for the most part, the female competitors did not fully understand the purposes of the tests. Female athletes believed what they had been told by the IOC officials that “sex chromatin testing protects them against cheating.” It sounds somewhat ironic and contradictory that “many women athletes [had] reflexively supported sex/gender verification policy as a good faith effort to prevent unfair competition.” While everyone is entitled to their own opinions, I aim to challenge this idea by highlighting a lack of knowledge imparted on female athletes as a key factor that encourages women to promote the tests.

*The IOC Turns to Women to Defend Sex/Gender Testing*

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197 Ljungqvist, *Gender Verification, op. cit.*, 189-190.
199 As cited in, Elsas et al., *op. cit.*, 252.
At both the 1994 Lillehammer Winter Olympics and the 1996 Atlanta Summer Olympics, female competitors were voluntarily asked by the IOC to take a survey regarding their opinions about the continued use of sex/gender testing.\footnote{Skirstad, Berit. “Gender Verification in Competitive Sport: Turning from Research to Action.” \textit{Values in Sport: Elitism, Nationalism, Gender Equality and the Scientific Manufacturing of Winners}, edited by Claudio Tamburrini and Torbjörn Tännsjö, S \& F N Spon, London, 2000, 118.} According to the 1994 survey, “66 per cent of the women said that gender verification was necessary, and approximately the same number found the test useful in that it prevented rumours.”\footnote{As cited in, \textit{Ibid.}, 118.} By 1996, the percent of athletes in favor of the tests had increased to the point where “82% felt that testing should be continued and 94% indicated that they were not made anxious by the testing requirements that preceded their competitive events.”\footnote{As cited in, \textit{Ibid.}, 118.} It is worth noting that the sample sizes varied greatly, which could help to explain why such a big jump occurred in only a two-year span. In 1994, 115 female athletes participated compared to the 928 athletes in 1996.\footnote{Skirstad, \textit{op. cit.}, 118.} While the drastic increase in the percentages is one of the first things to catch our attention, this does not really get at the question of why female athletes were supporting the tests. As we have already seen, they believed, because they had been told by the IOC, who claims to be doing everything in the best interest of its athletes, that the tests were necessary. In addition, if the tests were necessary, then of the options available, the analysis of chromosomes was considered the least invasive and degrading. The female athletes did not want to revert back to the physical exams “which they regard[ed] as an invasion of privacy.”\footnote{As cited in, Ferguson-Smith \& Ferris, \textit{op. cit.}, 20.}
Based on that logic, it makes perfect sense why women would advocate for the chromosomal based testing if testing had to happen. Essentially, they were opting for the lesser of two evils.

Another factor that could explain the overwhelming support from female athletes was the assumption that “passing the sex test proved their womanhood.” The problem with this belief is that the women are internalizing the IOC’s ‘conservative’ view of what determines ‘womanhood’. Rather than determining womanhood based on a plethora of standards, like appearance, social norms, or one’s own psychological identification, these women were reducing the idea of womanhood to chromosomes. As a result of this internalization, these female athletes perpetuated the use of chromosomal based testing by the IOC to determine what defined womanhood within sports. The IOC then uses this to its advantage by making the claim that “the acceptance demonstrated by a majority of female Olympians is one reason why the IOC continued to test.” This reasoning is ironic because nearly three decades prior it was the female competitors who pressured the IAAF to change the method of testing away from nude parades, and now, it is the women advocating for the continuation of testing. This points to the idea that the reactionary nature of the IOC has always been in response to the way the female competitors felt in regards to the types of testing they were required to

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205 As cited in, Pieper, Sex Testing, op. cit., 165.
206 Throughout this thesis, the terms ‘conservative’ and ‘womanhood’ are always meant to be bracketed.
208 As cited in, Pieper, Sex Testing, op. cit., 166; As cited in, Skirstad, op. cit., 118.
undergo. Essentially, the IOC believed that until “[female] Olympians expressed aversion,” it would continue testing.209

Despite the argument made by the IOC that “women themselves want[ed] the test,” we must still look at potential reasons for why in 1994, “20 per cent [of female athletes] expressed the view that the test was humiliating.”210 Upon analysis of the interviews/surveys taken during the Lillehammer Winter Olympic Games, Skirstad observed “that a majority of the athletes had received very little information about the tests in advance.”211 Skirstad continues by stating that if the athletes “had little or no knowledge about the gender tests [they] were most supportive of the test, and the more knowledge athletes had about the test, the more [skeptical] they were.”212 Therefore, it appears as if Skirstad is suggesting a direct correlation between knowledge about the tests and one’s receptiveness to them. Not only were the women unable to “recognize the flawed nature of the control methods,” but consultant gynecologist John Fox even went as far to say that “most female athletes are ignorant of the limitations of the test…and of the disastrous emotional and social consequences for the individual who has the misfortune to fail.”213 Fox’s critique comes across as if he were blaming the female athletes for their naivety and putting the onus on them for not understanding the implications of the test. I find this quite harsh seeing that it is a result of the lack of insight these athletes have received from the IOC regarding the nuances and

209 As cited in, Pieper, Sex Testing, op. cit., 170.
210 As cited in, Skirstad, op. cit., 118.
211 As cited in, Ibid.
212 As cited in, Ibid.
ramifications of the tests that lead to them supporting the tests. As I have already mentioned, but is worth noting again, the female athletes were under the impression that the IOC was doing everything in the athletes’ best interests. People, such as Ljungqvist, who were advocating that the IOC end sex/gender testing, saw these surveys conducted in 1994 and 1996 as the main reasons why female athletes had remained silent for so long. Skirstad’s observation, agreed on by others, stated that these surveys “reflected lack of information and knowledge.”

Therefore, “the more informed the athletes were, the more likely they were to object to the test.” And indeed this was the case. The athletes became “educated about the complexities of genetic based screens, and the misconception of unfair advantage underlying the IOC mandate for gender testing.” As a result, the female athletes began “to understand why blanket genetic screening [was] discriminatory, unnecessary and medically unsound.” It did not take long before they started questioning the IOC, and finally, the IOC had to address the female athletes’ demands.

The IOC Finally Gives in and Ends Its Use of Sex/Gender Testing

It was not until 1999 when, with the aid of Ljungqvist, the IOC’s Athletes Commission “called for [the] discontinuation of the IOC system of gender verification.” As a result of the constant pressure of the IAAF, the medical community, and most importantly from the athletes themselves, at its 1999 session in

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214 Ljungqvist, *Gender Verification, op. cit.*, 190.
216 Elsas et al., *op. cit.*, 252.
Seoul, the IOC Executive Board decided to accept the “unanimous recommendation of the Athletes Commission and ratified a resolution that laboratory-based gender screening of all female athletes [would] not be conducted at the 2000 Millennial Games in Sydney.” At the time, it was seen as a major victory for female athletes and the sports world. Ljungqvist and other progressive advocates regarding sex/gender testing went as far as to say that the IOC “should be applauded by the medical and scientific communities as well as [by] athletes” for its decision to finally end compulsory sex/gender testing. The century long process of discrimination against women through the use of sex/gender testing in the Olympics had come to an end, which should be fitting end to this thesis. Unfortunately, that is not the case.

Yes, the discontinuation of compulsory sex/gender testing marked the end of an era fraught with debates around chromosomal makeup of individuals, however, this does not mark the end of sex/gender testing in general. In fact, it just represents a transition and a subtle change in the methods of testing. A key component to this new resolution was that the Athletes Commission had advocated that the IOC still reserved the right to “[intervene] on an individualized basis” and “[evaluate] individual athletes by appropriate medical personnel if there [was] any question regarding gender identity.” This idea was not new, since it was essentially the same approach adopted by the IAAF in 1992 when it abandoned sex/gender testing. While the IAAF has never had to ‘intervene’ and test an individual since 1992, the fact that testing was still

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219 Elsas et al., *op. cit.*, 253.
220 Simpson et al., “Gender Verification in the Olympics,” *op. cit.*, 1569.
221 Elsas et al., *op. cit.*, 253; Genel, “Gender Verification No More?,” *op. cit.*, 3.
possible is of grave concern.\footnote{Throughout this thesis, the term ‘intervene’ is always meant to be bracketed.} Since the IOC claimed it would follow “scientific and ethical guidelines,” this meant that an athlete could be subjected to a physical exam because the medical community had “endorsed” the use of clinical examinations and deemed that a physical examination was “the only adequate method for gender verification in sport.”\footnote{As cited in, Ljungqvist, \textit{Gender Verification, op. cit.}, 192.} Therefore, we would be reverting back to the nude parades, however in an even cruder way. Whereas before, all female athletes were forced to partake in this inhumane physical examination, now only specific women who did not adhere to Western norms of femininity would be plucked from the group of competitors and be subjected to these tests. As one can imagine, and as we will see over the course of the remaining two chapters of this thesis, this could easily call into question an athlete’s appearance, athletic ability, race, and personal sex/gender identification.
Chapter 3. A New Olympic Era “Without” Sex/Gender Testing Begins

With the start of the 21st century, a new era in the Olympics was set to begin at the 2000 Sydney Games. For the first time in over three decades, the Olympics would be without mandatory sex/gender testing of female athletes. Following the IOC’s decision regarding the cessation of sex/gender testing, de Mérode adamantly confirmed that the IOC’s ruling was “valid only for the Sydney Games” and would be “re-evaluated” sometime after the Games. Nevertheless, this could be seen as a major victory for female athletes, especially those who were not defined as normal and authentic women by the IOC as a result of not having an XX chromosomal makeup. Despite both the IOC and IAAF maintaining the right to intervene and verify an athlete’s femininity if doubts arose, there appears to have been no athletes tested at the Sydney Games, the 2002 Salt Lake City Winter Olympics, or the 2004 Athens Games. By 2005, in an essay he co-authored with pediatric endocrinologist Myron Genel, Ljungqvist affirmed that “laboratory-based genetic screening for female gender in sport is history.” While the era of ‘laboratory-based genetic screening’ may have ended, the need to police sex/gender never waned. And in fact, even prior to Genel and Ljungqvist’s 2005 publication, a new era in the sex/gender testing saga had already begun, this time focusing on ‘transsexual’ athletes.

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224 As cited in, Elsas et al., op. cit., 253.
226 Ibid.
227 Throughout this thesis, the term ‘transsexual’ is always meant to be bracketed; I use the term ‘transsexual’ instead of ‘transgender’ or ‘transperson’ because ‘transsexual’ is the preferred term used by the IOC and IAAF.
Introducing the Stockholm Consensus Amongst Concerns of Transsexual Athletes

As countries began to introduce “legislation with respect to sex reassignment” and the “number of individuals undergoing sex reassignment…increased,” as a result of the “arrival of improved methods for the identification of transsexual individuals, and improved possibilities to rectify any sexual ambiguity,” the IOC believed it necessary to address the issue of transsexual individuals in sports.228 On October 28, 2003, the IOC Medical Commission put together an ad-hoc committee, led by Ljungqvist, to “discuss and issues recommendations on the participation of individuals who have undergone sex reassignment (male to female and converse) in sport.”229 Although the debate on transsexual athletes had been “discussed…in passing” at the IAAF’s meeting in 1990 where it was “[recommended] that the relevant sports authority assess individuals on a case-by-case basis,” the issues surrounding the eligibility of transsexual athletes remained a topic of little concern for more than a decade.230 However, over the years, the IOC’s Medical Commission “sought further opinion” as a result of the “increasing recognition of gender dysphoria as a specific diagnosis, adoption of protocols for treatment via surgery and hormonal therapy, and an increasing number of transsexual athletes seeking to compete.”231 Fearing that

231 Ibid.
transsexual athletes could present a threat to fairness and the sex/gender binary, the ad-hoc committee took it upon itself to “review the 1990 guidelines in the context of the recent change in gender verification procedures—namely the cessation of laboratory-based genetic screening of female athletes—and available medical and scientific knowledge.”

As a result, the committee proposed new regulations to the IOC Medical Commission which were adopted as the “Stockholm Consensus on Sex Reassignment in Sports” (hereafter Stockholm Consensus).

By drafting the Stockholm Consensus, the committee essentially aimed to deal with two types of cases: pre- and postpubertal transsexual athletes. Upholding the 1990 ruling, the committee maintained that, “individuals undergoing sex reassignment of male to female before puberty should be regarded as girls and women,” while the same goes for “female to male reassignment, who should be regarded as boys and men.”

What this means is that if an individual ‘transitions’ prior to puberty then said individual is allowed to compete in his/her newly defined sex/gender without any ramifications. While the regulations concerning prepubertal transitioned transsexual athletes, remained the same from the 1990 decision, the Stockholm Consensus introduced entirely new ‘recommendations’ regarding postpubertal transsexual athletes.

According to Ljungqvist, it had become evident “that the recommendation

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232 Ibid.
234 Ibid.
235 Ibid.
236 Throughout this thesis, the term ‘transitions’ or ‘transitioned’ is always meant to be bracketed; As cited in, Sullivan, op. cit., 407.
237 Throughout this thesis, the term ‘recommendation’ is always meant to be bracketed; As cited in, Sullivan, op. cit., 407.
to make a case-by-case evaluation of athletes who [had] undergone sex reassignment after puberty [was] insufficient."  

Therefore, through the Stockholm Consensus, the committee intended to establish new the guidelines that would need to be followed by a postpubertal transsexual athlete in order to be granted eligibility. The three conditions for a postpubertal male-to-female (MtF) transsexual athlete (hereafter MtF athlete) and the converse, female-to-male (FtM) transsexual athlete (hereafter FtM athlete), are as follows:

(i) Surgical anatomical changes have been completed, including external genitalia changes and gonadectomy; (ii) Legal recognition of their assigned sex has been conferred by the appropriate official authorities; (iii) Hormonal therapy appropriate for the assigned sex has been administered in a verifiable manner and for a sufficient length of time to [minimize] gender-related advantages in sport competitions...eligibility should begin no sooner than two years after gonadectomy.  

Striving for inclusivity, the IOC’s Stockholm Consensus was “hailed as a progressive access policy designed to admit transsexual athletes (rather than bar them from Olympic competition as [had] been done in the past).” Not only was it considered as progressive, but the IOC was also seen as paving the way for other federations to follow, for the Stockholm Consensus was viewed as a “transnational policy [that was] poised to become the template for all other international and many national sport governing bodies.” However, over the course of this chapter, I argue against the progressive nature of the Stockholm Consensus, and suggest that not only

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238 Ljungqvist, “Explanatory Note,” *op. cit.*
239 IOC Medical Commission, “Stockholm Consensus,” *op. cit.*
240 As cited in, Cavanagh & Sykes, *op. cit.*, 77.
does it represent a new form of sex/gender testing, but also, and more importantly, it introduced a new standard, hormonal levels, particularly testosterone, through which the IOC and IAAF could police femininity and uphold the sex/gender binary.

In order to fully comprehend what the IOC and IAAF are attempting to avoid have happen in their respective competitions, I would like to turn our attention to one of the earliest, if not the earliest, widely publicized case regarding a transsexual athlete trying to compete in a major international competition. In 1977, Renée Richards, formerly known as Richard (Dick) Raskind, “sought a preliminary injunction prohibiting the [United States Tennis Association] USTA from subjecting her to a sex-verification test relying on chromosomal make-up to determine her “true” sex status.” While it is important for us to remember the context of this case in the larger historical narrative as something that occurred during the era of ‘laboratory-based genetic screening,’ Richards’ case illustrates a central argument the IOC will use as justification for the Stockholm Consensus, namely the performance advantage a postpubertal MtF athlete would have over a normal woman after having first gone through puberty as a male.

The Case of Renée Richards

Following her semifinal loss in the Tennis Week Open, a tournament that saw “the USTA and the [Women’s Tennis Association] WTA promptly [withdraw] their sanctions from the…tournament,” in addition to 25 of the 32 female tennis players pulling out in protest of Richards being admitted to play, Renée Richards informed the

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media of her intentions to play in the 1976 US Open held at Forest Hills.\textsuperscript{243} In a reaction to her claims, the USTA informed Richards that in order to compete, she would first need to pass a “gender verification test” and “prove scientifically that she was a woman.”\textsuperscript{244} Despite her desire to compete, Richards refused to take the Barr body test, which meant that she would not be eligible to compete in the ’76 US Open. However, when asked why she would not take the sex/gender test, her response was not that she would not take a sex/gender test, but rather that she would take a “reasonable sex test like a gynecologist examination.”\textsuperscript{245} Richards goes on to claim that the “so called sex test, this Olympic chromosome test, is a very very poor test.”\textsuperscript{246}

In terms of the overall narrative to this thesis, Richards’ statement illustrates that by 1976, less than a decade after the Barr body test had been implemented by the IOC as its standard, the reliability of the test, in regards to determining the sex/gender of an athlete, was being questioned. Unfortunately, this realization was swept aside by the more pressing issue at the time, namely that Richards, who was formerly a man and had lived most of her life as a man, was now a woman and wanted to compete in the women’s division of the US Open. Unlike Patiño, who for all intents and purposes, except in the world of sports, was seen as a woman, Richards had gone from being a man to being a woman and was now trying to ‘pass’ as a woman despite her history.

\textsuperscript{245} “Renee,” \textit{op. cit.}, 35:40.
\textsuperscript{246} \textit{Ibid.}, 35:45.
Assuming that Dick Raskind was born a normal man with XY chromosomes, then the Barr body test would just affirm what was essentially common knowledge regarding Richards’ chromosomal makeup. Whereas Patiño and other female athletes with chromosomal conditions, who were required to take the Barr body test to confirm their femininity, Richards was being asked by the USTA to confirm her masculinity through the test, which would presumably confirm the presence of XY chromosomes. Although, as the previous chapter illustrates, relying on the Barr body test to determine sex/gender would not become relevant or questioned for at least another decade, this in part is what makes Richards’ case worth looking at. What Richards’ case offered was an alternative method that could be used to determine sex/gender and uphold the sex/gender binary. Albeit not fully developed at the time, this approach of drawing attention to performance advantages that developed after puberty, becomes a central issue that the IOC and IAAF look to police through their creation of the Stockholm Consensus.

Richards Takes on the USTA in Court

Although Richards had decided not to compete in the ’76 US Open, one year later, after reaching the finals in the Mutual Benefit Life Open, Richards, claiming a violation of the New York State Human Rights Law (Executive Law, § 297, subd. 9) and the Fourteenth Amendment, filed for a preliminary injunction against the USTA, WTA, and United States Open Committee (USOC) in the hopes that she would be able to play in the 1977 US Open. After hearing the case, Judge Ascione of the New York Supreme Court ruled in favor of Richards claiming that “requiring Richards to pass the

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247 As cited in, Shy, op. cit., 95.
Barr body test in order to participate in the US Open was “grossly unfair, discriminatory and inequitable, and violative of her rights.” As a result of Judge Ascione’s decision, Richards was admitted to play in the 1977 US Open, and on September 1, 1977, Richards made her US Open debut on center court against Wimbledon Champion Virginia Wade. Wade made quick work of Richards defeating her in straight sets, 6-1, 6-4. While Richards’ stint in singles did not last long, she fared much better in doubles where she and her partner, Betty-Ann Stuart, made it to the finals only to lose to Martina Navratilova and Betty Stöve 6-1, 7-6. Following the 1977 US Open, Richards continued to play in singles and doubles tournaments until she retired at the age of 47 in 1981.

According to Michael Rosen, Richards’ attorney, “her main argument [was] that the ruling lords of tennis put in this test just for Renée, to keep her out of [the] US Open.” It is hard to imagine a sports federation enforcing a test so that it can ban one competitor from competing, and yet, in the case of Richards and the USTA, that is exactly what appears to have happened. Prior to August 1976, when Richards first tried to compete in the US Open, “the USTA had not used a gender verification test.” In fact, over the course of the USTA national championships’ 95-year history, “until August, 1976, there had been no sex determination test...other than a simple phenotype

248 As cited in, Fastiff, op. cit., 941; As cited in, Shy, op. cit., 95.
249 “Renee,” op. cit., 49:05.
250 Ibid., 51:10.
251 Ibid., 52:18.
252 Birrell & Cole, op. cit., 2.
254 As cited in, Fastiff, op cit., 941.
test (observation of primary and secondary sexual characteristics)."255 Essentially for
95 years, as long as you looked like a woman you were classified as a woman, end of
story. While this is in itself problematic because it implies that there is a normal way
for women to look, what is even more troubling is that it was not until after Richards
had signed up to play in the women’s division of the ’76 US Open that the USTA “first
required a sex determination test for women.”256 As Judge Ascione stated in his
decision, “it seems clear that defendants knowingly instituted this test for the sole
purpose of preventing plaintiff from participating in the tournament.”257 In other words,
the USTA knew Richards would fail the test, thus preventing her from competing.
258 Despite attempts at denying the fact that they solely implemented the test to preclude
Richards from playing, the evidence is overwhelmingly in favor of the plaintiff. It does
not take someone with a law degree to read between the lines of the defendants’ claims.
The fact that the defendants had suddenly out of the blue and after Richards had signed
up to play in 1976 said that she needed to take a Barr body test all point to the obvious.
They did not want her competing in women’s tennis because she did not adhere to
feminine sex/gender norms and could pose a threat to said norms.

In defense of their position, the USTA, WTA, and USOC claimed that “their
primary concern in instituting the chromatin test [was] that of insuring fairness.”259
Upon first reading this, what immediately stands out is how similar this language of
‘insuring fairness’ is to the IOC’s own reasoning behind why the IOC implemented

255 As cited in, Richards v. USTA, op. cit., 268.
256 As cited in, Ibid.
257 As cited in, Ibid., 272.
258 As cited in, Fastiff, op cit., 941.
259 As cited in, Richards v. USTA, op. cit., 269.
sex/gender testing. Like the IOC, we are witnessing the USTA reacting to an athlete that does not fit into the socially accepted sex/gender binary, and thus, it felt the need to intervene. The defendants were of the opinion that given Richards’ history of going through puberty, “physical training, and development as a male,” she would receive a “competitive advantage” over normal women even after undergoing ‘surgery’ and ‘hormonal therapy’. According to the affidavit submitted by Dr. Daniel Federman, professor and chairman of the development of medicine, at Stanford University School of Medicine:

At puberty, the presence in the male of the y chromosome plus the much higher ratio of androgens to estrogens results, on the average, in greater height, different body proportions, and a higher muscle mass than in the female. In the adult male beyond puberty, neither the removal of the testes by sex reassignment surgery, nor any subsequent treatment with estrogen can affect the individual’s achieved height or skeletal structure. Removal of the testes plus ingestion of estrogens can reduce male strength, but any such effect is partial and depends upon continued ingestion of estrogen to be sustained.

While Dr. Federman’s point, that ‘sex reassignment surgery’ will not change Richards’ height or skeletal structure, appears sound, he does not provide any evidence supporting the claim that these two factors lead to success in tennis or any sport for that matter. If we look at the sport of women’s tennis today, one individual stands out, Serena Williams. Having claimed her record setting 23rd Grand Slam title at the 2017 Australian Open, Williams stands atop the tennis world as the greatest female tennis

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260 As cited in, Ibid.; Throughout this thesis, the term ‘surgery’ and phrase ‘hormonal therapy’ are always meant to be bracketed.
261 As cited in, Richards v. USTA, op. cit., 269.
262 Throughout this thesis, the phrase ‘sex reassignment surgery’ is always meant to be bracketed.
player ever to have played. Unlike Richards who stands at 6’ 2”, Williams is a mere 5’ 9”.

In fact, since 2000, 69 Grand Slams have been won by 21 different players. The average height of the winner is about 5’ 9 35/64”, which is just slightly more than Williams’ height. The spectrum ranges from 2010 French Open Champion, Francesca Schiavone, listed at 5’ 5 ½”, to 2000 Australian Open Champion, Lindsay Davenport, at 6’ 2 ½”. The point of this example is to illustrate that while height may be a factor in performance, it does not equate to success as Dr. Federman suggests.

Putting height aside, the more pressing issue is in regards to the assumption that despite hormonal therapy, Richards would still receive a competitive advantage as a result of her preoperative testosterone levels. According to Dr. Roberto Granato, who performed the surgical procedure on Richards, the “removal of the testes, the main source of androgen, decreases tremendously the male hormones in the blood and results in a decreased muscular mass.” Before and after surgery, Richards “underwent endocrinological testing and administration of female hormones so as to change [her] endocrinological hormonal balance to that of a woman.” For all intents and purposes, Dr. Granato saw “no unfair advantage” for Dr. Richards “when competing against other women. Her muscle development, weight, height, and physique fit within the female norm.”

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265 As cited in, Richards v. USTA, op. cit., 271.

266 As cited in, Ibid.

267 As cited in, Ibid.
meantime, we must put that aside. What is important for us to take away from Dr. Granato’s testimony is that from a medical perspective, Richards was considered a woman. Legally Richards is identified as a woman, medically speaking she is identified as a woman, psychologically, socially, and physically Richards identifies as a woman. Although the USTA can try and make the argument that since she has XY chromosomes and went through puberty as a man she receives the same postpubertal ‘benefits’ as a man, according to the medical experts and the plaintiff herself, Richards’ external genital appearance, internal organ appearance, gonadal identity, endocrinological makeup, and psychological and social development are that of a woman’s, and thus should be considered a woman regardless of her chromosomal makeup.

Richards’ Case Illustrated the IOC’s Fears

Although never directly cited by the IOC or IAAF as having an influence on the creation of the Stockholm Consensus, Richards’ case illustrated a fear that would become a main concern of the IOC and IAAF’s in the 21st century, which according to Ljungqvist, was the assumption that “a male puberty would mean an influence of testosterone, which could, in theory, be of importance even after a reassignment to female gender.” What Richards’ case laid out was a potential alternative to the Barr body test that could be used to adjudicate sex/gender while upholding fairness and maintaining the sex/gender binary. This alternative method emerges through the

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268 As cited in, Ibid., 267.
269 Throughout this thesis, the word ‘benefit(s)’ is always meant to be bracketed; As cited in, Richards v. USTA, op. cit., 267; As cited in, Ibid., 272.
270 Ljungqvist, “Explanatory Note,” op. cit.
arguments made by the USTA concerning fairness and the inherent competitive advantage MtF athletes would have over normal women. On numerous occasions, we have witnessed the IOC, like the USTA does in Richards’ case, defending the need for sex/gender testing on the basis that it is meant to “protect the notion of fair play for female competitors.”\(^{271}\) Despite these claims, what exactly is it that female athletes need protection from? As we have already seen, at the onset of the sex/gender testing era, there was a need to protect normal women from inauthentic women corrupting women’s sports whether that be men masquerading or the masculine Eastern Bloc women of the Cold War. However, by 2004, neither of these concerns were very pervasive since for one, the USSR had been dismantled for more than a decade. In addition, as Ljungqvist pointed out in 1990, the attire worn by athletes and the mandated drug testing had, for the most part, eradicated the potential of a male imposter in female sports. Therefore, in order to maintain the necessity of protecting women, the IOC and IAAF saw a new threat emerging in the form of a postpubertal transsexual athlete, particularly a MtF individuals.

*Pathologizing the Transsexual Body through the Stockholm Consensus*

As is illustrated in the Stockholm Consensus, the IOC’s concern was centered on the hormonal “gender-related advantages” typically regarded as the reasoning behind men’s superiority to women in sports.\(^{272}\) Despite being disproven in Richards’ case by Dr. Granato, it was believed that even after undergoing hormonal therapy the transitioned athlete would still have a competitive advantage over her fellow

\(^{271}\) As cited in, Sullivan, *op. cit.*, 408.

competitors. This points to a key reasoning behind the recommendation of not allowing a competitor to compete “no sooner than two years after gonadectomy.” This two-year period’s intention was “to remove any size and strength advantage that, for example, a male-to-female transsexual may have.” While the IOC is concerned that after surgery and hormonal therapy the postoperative MtF athletes will still have an advantage, in actuality, this is not the case. Not only does “hormonal therapy and [the] removal of male organs result in considerable decline in speed, muscle mass, and strength,” but more importantly and of great concern for health reasons, “transathletes who carry “male” skeletal structure and height on “female” musculature have been found to be more prone to injury.” I am not arguing nor suggesting that this is a reason for why transsexual athletes should not be allowed to compete. Rather, I am simply illustrating a point the IOC could have made to defend its reasoning behind the implementation of the two-year period. However, as we can tell, the IOC is not concerned with the well-being of all its athletes. Instead, as Patrick Schamasch, Director of the IOC Medical Commission, stated “the Stockholm Consensus was designed ‘more to protect the athlete who has not been sex reassigned than to help the person who is.’” This illustrates a clear pathologization of the transsexual body as unnatural and threatening and something that the IOC needs to protect the natural women from.

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274 As cited in, Sullivan, op. cit., 410.
275 As cited in, Ibid., 408.
276 As cited in, Cavanagh & Sykes, op. cit., 78.
In line with this concept of the transsexual body as unnatural, we begin to see why the IOC would make it imperative that “surgical anatomical changes have been completed, including external genitalia changes and gonadectomy.”\(^\text{277}\) Mainly concerned with upholding the sex/gender binary, by requiring a transsexual athlete to undergo sex reassignment surgery and hormonal therapy, the IOC is suggesting that the transitioned athlete will fit within the newly ascribed sex/gender based on norms of appearance. Through this requirement of surgery and hormonal therapy, the IOC is confirming the belief that an individual is either a man or a woman, and can only have a penis or a vagina. Therefore, a man cannot have a vagina and a woman cannot have a penis because this is seen as unnatural and contradictory to the accepted binary. What the IOC appears to be saying is that there is no grey area when it comes to an individual’s sex/gender. The IOC is trying to be progressive by allowing transsexual athletes to compete in the Olympics, but by requiring an individual to undergo surgery and hormonal therapy in order to become aligned with the individual’s new sex/gender, all the IOC has done is found another way to perform sex/gender testing while trying to uphold the sex/gender binary and the Western image of the female body.

_The FtM Athlete_

Over the course of this chapter so far, I have focused solely on cases involving MtF individuals, but it is imperative for us to also look at cases involving FtM athletes. One of the fundamental reasons behind why the IOC pays so little attention to FtM athletes lies in the “pervasive belief in female inferiority in all sports.”\(^\text{278}\) Rather than

\(^{277}\) IOC Medical Commission, “Stockholm Consensus,” _op. cit._

\(^{278}\) As cited in, Sullivan, _op. cit._, 409.
drawing on a specific case, I want to draw our attention to the language used by the IOC and especially the World Anti-Doping Agency (WADA) in the formulation of its rules regarding transsexual athletes and sex reassignment surgery. This analysis will lay the foundation for how the IOC and IAAF have tried to adjudicate sex/gender and police femininity from 2004 to the present.

As we have seen with the case of postpubertal MtF athletes, one of the major concerns from the IOC’s perspective is the belief that despite hormonal therapy this individual could potentially still have a competitive advantage over a normal woman since said individual will still benefit from having gone through puberty and developing as a male. While this argument clearly aligns with the belief that men are inherently superior to women in sports because it highlights the importance placed on testosterone as a key factor in performance, when we look at the converse, however, something changes in the argument/analysis and ‘treatment’ of the FtM athlete. For a FtM athlete to compete, said individual would need to be subjected to estrogen hormonal therapy in order to fit within the ‘male range’ of the “gender-related advantages.”

The irony and obviously problematic issue that arises here is the fact that the use of exogenous testosterone is considered a banned substance by WADA. Therefore, in order for a FtM athlete to be eligible to receive hormonal therapy, “transsexuality had to be recognized by [WADA] as a legitimate medical condition.”

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279 Throughout this thesis, the word ‘treatment’ is always meant to be bracketed.
280 Throughout this thesis, the phrases ‘male range’ and ‘female range’ are always meant to be bracketed; IOC Medical Commission, “Stockholm Consensus,” op. cit.
281 As cited in, Sullivan, op. cit., 409; As cited in, Cavanagh & Sykes, op. cit., 89.
In order to medicalize “transsexuality” as a condition, WADA relies on the “comprehensive DSM-V and ICD-10 criteria [which] have been developed for gender dysphoria and transsexualism.”\(^{282}\) WADA uses terms such as ‘therapy’ and ‘medical condition’ strategically to perpetuate the belief that ‘transsexuality’ is a ‘disease’ and a ‘problem’ that can be fixed through medical help which is outlined by the medical experts in the DSM-V and ICD-10.\(^{283}\) Obviously, this is disturbing and problematic to say the least, but what is of the utmost concern is that by 2016, WADA, while acknowledging “other terms used for this condition are transgender or, less often, transitioned women and men,” still decides to label these individuals as transsexual men or women.\(^{284}\) Using the word condition still problematizes everything, but the term transsexual is rarely, if ever, used in everyday discourse and so by continuing to use it, WADA is medicalizing and pathologizing these individuals in order to perpetuate the belief that there is something wrong with them and that the only way to help them is to ‘cure’ them through medical ‘intervention’.\(^{285}\)

_FtM Athletes Exempted and Allowed to Use Testosterone_

Once transsexuality was “recognized by WADA as a legitimate ‘medical’ condition…[then] provisions regarding the use of hormones [were] allowed.”\(^{286}\) These

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\(^{283}\) Throughout this thesis, the words ‘transsexuality,’ ‘disease,’ and ‘problem’ are always meant to be bracketed.

\(^{284}\) WADA, “FtM Transsexual Athletes,” _op. cit._, 1.

\(^{285}\) Throughout this thesis, the words ‘cure’ and ‘intervention’ are always meant to be bracketed.

\(^{286}\) As cited in, Cavanagh & Sykes, _op. cit._, 89.
‘provisions’ come in the form of a Therapeutic Use Exemption (TUE), which allows the athlete to use a banned substance, in this case testosterone. In March 2016, WADA published its most recent edition of the TUE Physician Guidelines, which included one titled “Female-to-Male (FtM) Transsexual Athletes.” While this document is problematic for many reasons including, but not limited to, its outdated and pathological terminology, there are a few points worth highlighting. In the document’s introduction, WADA claims “the hormones administered to MtF athletes (estrogen, anti-androgens) are not prohibited in sports. Only FtM athletes who take androgens require a TUE…[since] testosterone administration influences performance measures.” This is significant because it highlights how hormones have become gendered. What WADA is conveying is the message that estrogen, the female hormone, does not aid one’s athletic ability and in fact reduces said athletic performance because women are labeled the inferior athlete, and so the monitoring of estrogen intake is not of importance as it will just result in one performing at the level of a natural woman.

If we are to accept the belief that testosterone provides a performance advantage then, “given that many transsexual men take testosterone injections, it is curious that the Olympic community does not consider that they may have an advantage over genetic men.” While Cavanagh & Sykes suggest “this omission is symptomatic of a refusal to see trans men as men,” this assertion is troublesome for two reasons. First and foremost, as we have witnessed on multiple occasions throughout this thesis, the

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288 Ibid.
289 Ibid.
290 As cited in, Cavanagh & Sykes, op. cit., 78.
291 Ibid.
IOC appears to want to enforce a sex/gender binary where an individual is either a man or a woman. Claiming that the ‘trans man’ is not truly a man would imply that the IOC is labelling these individuals as something other than man or woman, which would go against the sex/gender binary the IOC appears to be wanting to uphold. The second and more important point, which will be developed and analyzed in full in the next chapter, is that WADA does in fact regulate the amount of testosterone a FtM athlete can take for precisely the reason Cavanagh & Sykes put forth. Given the performance advantages testosterone is believed to have, WADA declares that “FtM athletes have physiological androgen exposure comparable with, but no more than, eugonadal men.” Without going into too much detail or analysis at this time, what we can take away from this regulation is the underlying assumption that if given ‘too’ much exogenous testosterone, an unnatural man could potentially have an ‘unfair’ advantage over a natural man as a result of higher than normal levels of testosterone not found in naturally high men.

In the next chapter, not only we will return to WADA’s restriction on how much exogenous testosterone a FtM athlete is allowed to have, but we will also take the analysis a step further and apply it to situations dealing with women who have naturally high levels of testosterone. By closely examining the cases of South African runner, Caster Semenya, and Indian runner, Dutee Chand, we will arrive at the most current debates regarding sex/gender testing and the continued attempts made by the IOC and

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293 Throughout this thesis, the words ‘too’ and ‘unfair’ are always meant to be bracketed.
IAAF to uphold fairness in women’s competition while maintaining the sex/gender binary in the world of sports.
Chapter 4. What it Means for a Woman to be “100%” Woman

The idea of insuring fairness has always been of the utmost importance to the IOC and IAAF, however, as we have seen over the course of this thesis, sex/gender testing never really got at the issue of assuring fairness when it came to dealing with performance advantages. While nude parades and chromosome testing determined, in the IOC and IAAF’s eyes, who was a man and who was a woman, these tests did not identify what caused an unfair competitive advantage. In part, this is what led to both the IOC and IAAF abandoning compulsory testing. At the time, they could not find a bodily characteristic that not only influenced performance, but also could, if not regulated, disturb the sex/gender binary. However, the fact that the IOC and IAAF still maintained the ability to intervene and subject a female athlete to sex/gender testing in order to verify her femininity if doubts were raised, illustrated that the IOC and IAAF had not given up hope that such a characteristic existed. Although dealing with transitioning bodies and not ‘cis-bodies,’ the Stockholm Consensus helped move the conversation towards hormones, particularly testosterone, as something that could influence performance and lead to an unfair competitive advantage. By 2011/2012, the IOC and IAAF officially moved away from sex/gender testing to testosterone testing because the federations were of the belief that unlike sex/gender testing, which did not yield an identifiable unit or quality that could be singled out as the causation of


295 Throughout this thesis, the words ‘cis-body,’ ‘cis-male,’ and ‘cis-female’ are always meant to be bracketed.
performance, testosterone, in itself, represented the likely element that caused performance advantages. It would therefore seem that the IOC and IAAF were moving away from the need to neatly categorize athletes into men’s and women’s competitions, since they were now solely concerning themselves with what led to performance and how to insure fairness based on the grounds of competitive advantage. This line of thinking draws us to the notion of various sports where the main reason for dividing competitors into categories based on weight, age or, skill is to insure fairness.

Although the cut-offs established may seem, and are in fact, arbitrary, the “purpose” of these classifications “is to ensure that individuals who would otherwise be at a disadvantage for reasons related to weight or age…can compete fairly with peers.”

Obviously, these categories regarding weight, age, and skill, are already established, but if we are solely in the realm of factors that lead to competitive advantages, then why would the IOC and IAAF go to testosterone levels? Why not also look at height, lung capacity, heart rate, etc.?

Why Testosterone?

In the case of “Dutee Chand v. Athletics Federation of India (AFI) & The International Association of Athletics Federations (IAAF),” Ljungqvist, an expert witness retained by the IAAF, was asked a similar question by the Court of Arbitration for Sport (CAS) Panel (hereafter Panel) as to “why there was no exclusion for other genetic traits such as hand size.” In response, Ljungqvist stated that “such characteristics do not qualify the person as male or female and that it is perfectly

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296 Tucker & Collins, op. cit., 133.
297 As cited in, Ibid.
298 Chand v. IAAF, op. cit., 65.
acceptable to have a diversity of body characteristics inside a competition group.\textsuperscript{299} While these other ‘genetic traits,’ such as height or hand size, may confer a competitive advantage, they are of no concern to the IOC and IAAF because they do not help determine one’s sex/gender. According to Ljungqvist, it is through testosterone that the IOC and IAAF can identify an individual as a man or a woman. Despite the IOC and IAAF’s claims that they are not concerned with sex/gender testing and that a female’s endogenous testosterone levels are in no way meant to determine one’s sex/gender, what we are witnessing is a complete contradiction of those assertions. Ljungqvist argues that by policing testosterone the IOC and IAAF have finally found what distinguishes a man from a woman in sports. Once the IOC and IAAF have identified testosterone as the main cause in performance advantages, then they are able to go about establishing an arbitrary cut-off that defines the male and female testosterone ranges. As will become apparent through our analysis of Caster Semenya’s and Dutee Chand’s cases, if the female athlete’s testosterone levels are too high and cross this threshold, then, she is deemed not ‘woman enough’ to compete.\textsuperscript{300} Although Ljungqvist believes it is acceptable to have a ‘diverse’ range of body characteristics within a group, the problem he, the IOC, and IAAF, have with testosterone is that, unlike hand size or height, it has the potential to challenge the divide that they have established as what differentiates a man from a woman. Therefore, as we will see throughout this chapter,

\textsuperscript{299} Ibid.
\textsuperscript{300} Throughout this thesis, the phrase ‘woman enough’ is always meant to be bracketed.
through the policing of testosterone levels, sex/gender testing has taken on a new form in the quest to maintain and perpetuate the sex/gender binary in sports.

*Caster Semenya and the ‘Freak Athlete’*

As a result of her competing at the 2009 World Track and Field Championships in Berlin, 18-year-old, Caster Semenya, an unknown South African middle-distance runner, became the central figure of controversy in regards to the debate concerning sex/gender testing. Competing in the 800-meter distance, Semenya won the gold medal with relative ease beating out her competitors by more than two seconds. Her time of 1:55:45 set the record for the fastest time posted in 2009, but this time was still nearly three seconds slower than the world record set by Jarmila Kratochvílová in 1983. Rather than having the chance to celebrate her victory, “controversy” surrounding Semenya’s sex/gender was “made public when the IAAF requested gender tests, without giving any details on the test protocols.” While her “sexual identity was questioned, the underlying reasons were not explicitly communicated.” Since the IAAF did not officially reveal the reasons leading to why Semenya’s ‘sexual identity’ was being questioned, it remained open to interpretation. As a result, members of society, especially the media and her fellow competitors, were left to make their own conclusions about Semenya’s ‘sexual identity.’ On September 11, 2009, the *Sydney

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301 Throughout this thesis, the phrase ‘freak athlete’ and word ‘freak’ are always meant to be bracketed.  
305 Montañola & Olivesi, *op. cit.*, 1.  
Daily Telegraph had obtained information regarding the tests “conducted during the world athletics championships,” and published the news “[revealing] evidence that [Semenya] is a hermaphrodite, someone with both male and female sexual characteristics.”307 More commonly referred to as an individual who is ‘intersex,’ or in medical terminology ‘Disorders of Sex Development (DSD),’ it is a “generic term used to describe a variety of conditions present in sexual characteristics (such as chromosomes, gonads or genitals) that prevent individuals from being distinctly identified as ‘male’ or ‘female’ according to the typical definitions.”308 While it was assumed by many that Semenya was born intersex, since the results of the tests were not made public, this commonly held belief is only an assumption. However, this did not stop people from labelling Semenya a freak athlete.309 The idea of being considered a freak athlete is an interesting one that warrants a further discussion.

Usually, the word freak implies a negative and derogatory connotation, and while it is being used in this sense to describe Semenya, this is not the typical context for the term freak when applied to athletes. One of the most well known freak athletes is Michael Phelps. With a “six-foot-seven-inch arm-span,” which is “three inches longer than his height,” in addition to his “size-fourteen feet,” which are “extremely flexible” and can be flexed to “fifteen degrees beyond what is average,” some say, that with his body, Phelps was born to be a swimmer.310 While these may be ideal body characteristics for a swimmer, there is no denying that they also make Phelps a freak.

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307 As cited in, Ibid., 8-9.
308 Throughout this thesis, the term ‘intersex’ or ‘DSD’ is always meant to be bracketed; As cited in, Ibid., 1.
309 As cited in, Cooper, op. cit., 235.
310 As cited in, Ibid., 233.
It is not normal for a person to have these features, and yet, since they are being put to productive use in achieving success in the pool, we accept his ‘freakish’ features as part of what makes him special. He is a freak, a ‘specimen,’ that everyone idealizes as the best swimmer ever. In this way, the idea of a freak athlete is of the utmost praise. However, when the same language is used to describe Semenya, it takes on an entirely different connotation. It becomes a degrading and derogatory characterization in the most negative of ways. Questions arose because she “look[ed] too masculine,” and because “she ran too fast to be a woman.”311 In essence, Semenya was being labelled a freak because “she may not be a “woman,”” and therefore, society did not know how or where to categorize her.312 Is she a woman? Or is she a man? She was a freak because the time she posted was considered to be too fast for a woman, and yet, too slow to be in the male time range. Therefore, in regards to time, she did not fit within the normal male or female time range, but in the empty gap that lay between the two ranges. In terms of appearance, she was a freak because of “her lack of makeup, her impressive musculature, the braids that [gave] the impression of closely cropped hair, and her height.”313 Regardless of what she thought about herself, since society could not easily place Semenya into one of these two categories of either male or female, she must be something else, a freak.

*Needing to Categorize the Freak Athlete?*

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We can take this idea of a freak athlete and categorization a step further and ask the question why are there not separate categories for these so-called freak athletes? Recalling Ljungqvist’s comments regarding genetic traits, he is of the opinion that it is fair to have someone, like Phelps, with a freakishly long arm-span compete against other swimmers with normal arm-spans. While Phelps’ freakish body characteristics are not the sole factors that have led to his success, there is also no denying that these abnormal characteristics give him an unfair competitive advantage over his fellow adversaries in the pool. But since these unfair body characteristics have nothing to do with Phelps’ sex/gender or appear to threaten the sex/gender binary, no official cares, and therefore, labelling Phelps a freak athlete is meant as a compliment. However, as previously stated, Semenya’s freak status elicits a very different reaction. Why? Semenya was believed to have a condition that allowed her to ‘enjoy’ bodily characteristics, such as musculature and high levels of testosterone, usually found in men that would allow her to compete at a level not obtainable by normal women.\(^\text{314}\) Although her bodily characteristics, like Phelps’, are natural, they are being critiqued from a heteronormative patriarchal perspective, in which the sex/gender binary must be upheld. Even if one were to ask how would Phelps’ abnormalities be perceived if seen on a female body, the perception, I presume, would be not that dissimilar because as Ljungqvist puts it, foot size, arm-span, and ankle flexibility ‘do not qualify the person as male or female.’ However, testosterone does, which is why the freak athlete who challenges the sex/gender binary, must be regulated.

\(^{314}\) Throughout this thesis, the term ‘enjoy’ is always meant to be bracketed; As cited in, Cavanagh & Sykes, op. cit., 94.
I began this section posing the question why not just create separate categories for these freak athletes. As we have seen through this analysis of the freak athlete, not all freak athletes are considered to be a problem or issue to sports, particularly the Olympics, and the ideals trying to be upheld. Therefore, there is no need to ‘ruin’ swimming by removing Phelps from competing against normal swimmers.\textsuperscript{315} Phelps represents something inherently good for swimming. Then based on this logic, would it not make sense to want to create a separate group for athletes, like Semenya, who appear to be ruining athletics? There could be a separate group for “all elite athletes with a DSD,” which would solve the problem.\textsuperscript{316} On the contrary, this only further problematizes the situation for two reasons. First, it draws more attention to these athletes and further objectifies them as freaks, who cannot be categorized as either men or women. Second, this line of thinking actually would contradict the underlying and inherent reasoning for why the IAAF needs to police testosterone in the first place. As Ljungqvist articulates, testosterone levels allow the IAAF to establish a clear cut definition of what categorizes a man from a woman, and therefore, by regulating testosterone, the IAAF can establish ways the freak athlete can alter her body to fit back in the category of what the IAAF defines as female, thus upholding the sex/gender binary.

\textit{Performance and Appearance Define Semenya as a Freak}

\textsuperscript{315} Throughout this thesis, the term ‘ruin’ is always meant to be bracketed.
If we continue to think about Semenya as a freak athlete, the question then becomes what led people to think of her as a freak on the track? The two most common aspects that drew attention were her performance and appearance. One of the main issues raised regarding Semenya’s performance was that “she had finished the race well ahead of her competitors, [and] her performance had improved too quickly.”\(^{317}\) In October 2008, Semenya won the 800-meter race at the 2008 Commonwealth Youth Games with a time of 2:04:23.\(^{318}\) On July 31, 2009, Semenya posted a time of 1:56:72, to win the African Junior Championships.\(^{319}\) Less than a month later, she finished first in the 800-meter at the World Championships with the world’s fastest time of the year at 1:55:45.\(^{320}\) To put this in perspective, in less than a year, Semenya was able to reduce her time by nearly eight seconds. On top of that, she was able to shave off more than a second in a span of less than a month. While the two-second margin of victory Semenya achieved in Berlin could be “considered a tremendous gap in the event,” this just gives us more reason for why we should be celebrating Semenya’s performance rather than condemning her dominance.\(^{321}\)

In a race that is usually determined by tenths or hundredths of a second, Semenya was able to put together a virtuosic performance in which she did everything right. However, people did not see it that way. To put Semenya’s performance into perspective, I would like to turn our attention to another sport that usually is determined by mere tenths and hundredths of a second, swimming.

\(^{317}\) Montañola & Olivesi, op. cit., 1.
\(^{318}\) As cited in, Ibid., 7.
\(^{319}\) As cited in, Ibid., 8.
\(^{320}\) As cited in, Ibid.
\(^{321}\) Pieper, Sex Testing, op. cit., 180.
In particular, I would like to look at the case of Katie Ledecky’s performance in the 800-meter freestyle event at the 2016 Rio Olympics.

_Caster Semenya vs. Katie Ledecky_

Heading into the finals of the 800-meter freestyle, it was, as commentator Dan Hicks stated in the NBC broadcast, a “forgone conclusion, virtually” that Ledecky was guaranteed to capture gold and defend her title in the event from London four years prior.\(^{322}\) Coming off her performance in the prelims, in which she posted the best time by nearly seven seconds, the real question was just how dominant was Ledecky going to be? At the first 50-meter turn, Ledecky was already faster than the world record pace she had set in January of 2016. It only took a few laps before Ledecky was the only swimmer seen on the TV screen. In her final 50-meters, Ledecky seemed to go into another gear as she eclipsed her own world record. Finishing an entire body length ahead of her previous best, Ledecky posted a new world record time of 8:04:79, which was nearly two seconds faster than her previous world record, about eight seconds faster than her preliminary time, and almost 12 seconds faster than any of her fellow competitors.\(^{323}\)

While coincidently competing over the same distance, both Semenya and Ledecky drew attention to themselves based on their impressive performances. But it is interesting how they were received differently as a result of their performances. As previously stated, Semenya’s margin of victory and how quickly she improved her time

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\(^{323}\) Lutz, _op. cit._
in a relatively short period drew negative attention. This came in the form of considering her performance as inauthentic because there were concerns about her femininity. However, when compared to Ledecky’s performance, Semenya’s seems trivial, and yet, Ledecky was praised while Semenya was scorned. Do not misunderstand me, Semenya’s two-second margin of victory is a fairly decent gap, however, Ledecky beat the second place finisher by 11.38 seconds, which is more than five times as much as Semenya’s margin.\(^\text{324}\) For such a margin of victory to occur in the 800-meter distance in athletics is almost unfathomable. You would almost need every competitor, except the winner, to pull up with a cramp in the last 200 meters of the race. I am not suggesting it is easier to achieve this margin of victory in swimming, in fact, a gap of this magnitude is very rare. While one could argue that there are more variables in swimming that could contribute to such a dominant victory, such as Ledecky’s turns and explosiveness off the wall, which were superior to her competitor’s, and while that may be true, it does not diminish nor fully explain the accomplishment she achieved.

Another major point that led to people questioning Semenya’s performance was how quickly she was able to improve her time over the course of about 10 months. From October 2008 to August 2009, Semenya, as previously stated, reduced her time by nearly eight seconds. Assuming that she was constantly training during this timeframe, and maybe altering her diet to improve her performance, it does not seem

that unreasonable to assume that an eight-second decrease would be possible. To put
Semenya’s time reduction into perspective, Ledecky clocked a final’s time that was
roughly eight seconds faster than her prelim time she had posted only 24 hours earlier.
It is fair to assume that Ledecky was swimming conservatively, conserving as much
energy as possible, and only trying to secure a good lane assignment for the final by
setting a decent time in her heat. But based on the way Semenya was treated, it would
seem that Ledecky should have turned heads and caused people to pause a moment to
think, especially when she reduced her time by the same amount Semenya did in a span
of one day compared to 10 months. However, as we will quickly come to realize,
performance is only a part of the story. Despite Semenya having yet to set a world
record in the 800-meters, Ledecky has posted a new world record for the distance on
five different occasions.\textsuperscript{325} While Ledecky is praised and cheered, Semenya is chastised
and questioned. Why? The answer is plain and simple, and yet very disturbing: appearance.

Unlike Ledecky, who fits within Western ideals of femininity and feminine
appearance because she is white, not overly muscular for an elite female swimmer, has
relatively long hair, and clearly defined breasts, Semenya is defined as deviating from
these norms as a result of her non-whiteness and the fact that she was by others
“considered too muscular, too flat chested and too hairy.”\textsuperscript{326} By seeing Semenya this
way, people began to resurrect an argument from the era of early sex/gender testing.
Since “she had failed to comply with standards of femininity, she was necessarily a

\textsuperscript{325} Lutz, \textit{op. cit.}
\textsuperscript{326} As cited in, Montañola & Olivesi, \textit{op. cit.}, 1.
man and had therefore cheated.”327 The implication is that Semenya might have been a male masquerading as a female. As Ljungqvist pointed out in the early ’90’s, given the attire and the presence of an official during urination collection for drug testing, the idea of a male masquerade is practically nonexistent, especially by 2009. However, these concerns and questions of her authenticity led to the IAAF needing to verify Semenya’s sex/gender. While Semenya was not the first athlete to undergo testing since mandatory sex/gender testing had been abolished in 2000, she was being singled out for the subject based testing that had been created if a special case arose. Therefore, Semenya’s performance coupled with her appearance justified the IAAF’s reasoning behind having her take a sex/gender test. In the press conference following her victory in 2009, which Semenya did not attend, Pierre Weiss, the secretary general of the IAAF, stated “a double investigation is being conducted – one in South Africa, one in Berlin…If at the end of the investigation we find out she is not a woman, we will withdraw the medal and redistribute it.”328 As a result of her testing, Weiss declared that “[Semenya] is a woman, but maybe not 100 percent.”329

_Caster Semenya Makes Testosterone Relevant_

While Semenya was being put on display on the cover of the magazine, _You_, with the headline “Wow, Look at Caster Now!,” in order to authenticate her femininity and ‘prove’ she was ‘100% woman,’ the IOC and IAAF were thinking of new ways to police sex/gender.330 Unlike with a transsexual athlete who was told that if he or she

327 As cited in, _Ibid._
328 As cited in, _Ibid.,_ 8.
329 Padawer, _Ibid._
330 Throughout this thesis, the term ‘prove’ and phrase ‘100% woman’ are always meant to be bracketed; As cited in, Nyong’o, _op. cit._, 96-97.
goes through transformation after puberty he or she needs to have sex reassignment surgery and align his or her hormones in the norms of the new sex/gender, a female intersex individual posed a new problem, since she had been identified at birth as a female by medical experts. The question now became how the IOC and IAAF were going to deal with female athletes with naturally high levels of testosterone in the normal male range, especially, when they believed a level of testosterone in the normal male range clearly denotes an unfair performance advantage over women with normal levels of testosterone? After “having gone through 11 months of medical tests – which have remained confidential – and legal and judicial procedures within the sporting sphere” on top of numerous meetings with IAAF officials, Semenya was finally granted reentry into competition as a woman on July 5, 2010.331 Not knowing what these ‘medical tests’ consisted of leads one to speculate. Despite “all information regarding the IAAF evaluation officially [remaining] undisclosed [knowledge],” a common idea inferred by the public regarding these tests was that Semenya was “undergoing hormonal therapy treatment.”332 While we can neither confirm nor deny the validity of the accusation, this assumption is an essential concept we must look at because for the IOC and IAAF, Semenya represented a new nonconformitive body that could threaten the sex/gender binary and challenge the notion of fairness if not policed and regulated.

Roughly one year after Semenya’s reinstatement, the IOC and IAAF, in response to Semenya’s case, released separate but very similar regulations on female

331 As cited in, Montañola & Olivesi, op. cit., 2; As cited in, Ibid., 10.
332 As cited in, Henne, op. cit., 795.
athletes with ‘hyperandrogenism’.\textsuperscript{333} With the belief that the “difference in athletic performance between males and females is known to be predominantly due to higher levels of androgenic hormones in males resulting in increased strength and muscle development” the IOC and IAAF set out to insure a level playing field by policing testosterone levels.\textsuperscript{334} According to the IAAF’s Hyperandrogenism Regulations (hereafter Regulations) in order for a female athlete to be “eligible to compete in women’s competition,” she must meet the following criteria:

(i) she has androgen levels below the normal male range; or (ii) she has androgen levels within the normal male range but has an androgen resistance such that she derives no competitive advantage from having androgen levels in the normal male range…[androgen levels] are measured by the level of Total Testosterone in serum…normal male range Total Testosterone Levels \(\geq 10\) nmol/L.\textsuperscript{335}

Returning to the idea that Semenya was undergoing hormonal therapy treatment, we begin to see why this idea of treatment would be so important, especially in regards to the Regulations. While it is unknown if Semenya was born intersex, what people were assuming is that Semenya had some condition that allowed her body to produce an abnormally high level of testosterone not found in normal women. That being said, regardless of whether it was true or not, it is the idea of seeking out

\textsuperscript{333} Montañola & Olivesi, \textit{op. cit.}, 10; Throughout this thesis, the terms ‘hyperandrogenism’ and ‘hyperandrogenic’ are always meant to be bracketed.


\textsuperscript{335} IAAF, “Females with Hyperandrogenism,” \textit{op. cit.}, 12.
hormonal therapy treatment that is so important for us. Even if Semenya did undergo treatment, this statement is still ambiguous as to what form of hormonal treatment she was receiving and for what hormone. However, seeing that the Regulations were developed as a direct result of Semenya’s case on top of the fact that they specifically targeted testosterone levels, it can be assumed that the treatment was in regards to her testosterone levels and an effort to reduce them. The reason why this is so important is because prior to the Regulations even being written, we are witnessing a case in which an athlete is undergoing some form of a medical intervention to manipulate her body so that it will align better with the ideals of femininity desired by the IAAF. Although the arbitrary guidelines concerning testosterone levels had yet to be established, this raises two key points. First, it illustrates the malleability of one’s testosterone level through an intervention. This is significant because as we will come to see through a close analysis of the Regulations, it is through the manipulation of testosterone, mainly the reduction of it in the form of a medical intervention, that will grant a hyperandrogenic athlete reentry into competition. Second, this case establishes the idea of testosterone being an important factor when determining femininity. While Semenya’s case is not necessarily suggesting a direct causation between testosterone and performance quality at this time, it is establishing the belief that by reducing testosterone levels Semenya became more feminine. This is evidenced by the fact that Semenya was reinstated in 2010. Giving no definitive reason for its decision, the IAAF followed with the publication of the Regulations. Thus, it can be inferred that while Semenya’s case illustrated a potential new threat to the sex/gender binary, it also highlighted a way in which to regulate and expunge that threat. In a way, Semenya was
both the problem and the solution to the IAAF’s issue of how it would maintain fairness while continuing to uphold the sex/gender binary through a form of sex/gender testing. The answer was to set an arbitrary threshold for testosterone levels that if crossed by a woman, meant she must not be 100% woman.

*Continuing to Determine Sex/Gender*

Semenya’s case played an important role in revitalizing the need to test sex/gender, and while testosterone appeared to be the new standard through which the IOC and IAAF could determine sex/gender, both federations were steadfast in asserting that “nothing in these Regulations [on Female Hyperandrogenism] is intended to make any determination of sex.” Just to clarify, this language is from the IOC’s policy on hyperandrogenism, however, the IAAF also maintains this position. No longer was the IOC and IAAF concerned about the chromosomal makeup of the athletes because they believed they had finally found the answer to what defined the difference between men and women in sports: testosterone. As is seen with Semenya, while appearance could lead to questions, what would be the ultimate determinant was the level of testosterone in her body and whether or not it was in the male range, and if so, whether or not she gained a competitive advantage from said male levels of testosterone. The IOC and IAAF thought, that through the monitoring of testosterone levels, they had finally found the best way to protect women and insure a level playing field. That was until recently, when Indian runner, Dutee Chand, challenged the IAAF by appealing to the CAS regarding her indefinite suspension from competition as a result of her failing to comply with the IAAF’s Regulations. After review of the case, Chand’s appeal was “partially

upheld” by the Panel. The Panel declared that “the Hyperandrogenism Regulations are suspended for a period of no longer than two years from the date of this Interim Award. In the interim, Ms. Dutee Chand is permitted to compete in both national and international-level athletics events.” The Panel further stated that during the interim period the IAAF may:

Submit further written evidence and expert reports to this Panel addressing the Panel’s concerns concerning the Hyperandrogenism Regulations as set forth in this Interim Award and, in particular, the actual degree of athletic performance advantage sustained by hyperandrogenic female athletes as compared to non-hyperandrogenic female athletes by reason of their high levels of testosterone.

*Dutee Chand Challenges the IAAF*

Before we unpack this Interim Award (hereafter Award), we must first remember that Chand is challenging the IAAF, and therefore the IAAF’s Regulations not the IOC’s, which as noted in the Award are slightly different. The major difference stated by Ljungqvist is that “in contrast to the IAAF’s Hyperandrogenism Regulations, the IOC regulations do not prescribe a specific eligibility threshold of 10 nmol/L.”

According to Ljungqvist, it is the “IOC’s belief that “some athletes may enjoy a performance advantage even with concentrations of endogenous testosterone in serum lower than 10 nmol/L.” While this is a very intriguing reasoning behind why the IOC does not have a cut-off limit, since we are dealing with the IAAF’s Regulations, we need not concern ourselves with the details of the IOC’s regulations at this time.

337 Chand v. IAAF, op. cit., 160.
338 Ibid.
339 Ibid.
340 Ibid., 88.
341 As cited in, Ibid.
However, it is worth taking a moment to examine Ljungqvist. Arne Ljungqvist has been a prominent figure in this debate from the early 1990’s to the present, and by his own admission, “acknowledged that his own thinking had evolved over time but steadfastly defended his opinion that the Hyperandrogenism Regulations effectively serve the best interests of the community of athletes.” No doubt, he is referring to how in the 1990’s, he was one of the most outspoken voices advocating for the abolition of compulsory sex/gender testing, but then by 2003/2004, how he played an integral role in constructing and putting the Stockholm Consensus into action. It is difficult to say what made the so called progressive reformer of the ’90’s become this conservative IOC and IAAF official strongly advocating for the need to police sex and gender. Regardless of what caused him to ‘evolve’ over time, at this moment, despite highlighting the differences between the IOC and IAAF’s regulations concerning hyperandrogenism, Ljungqvist still advocates that the “Hyperandrogenism Regulations are a necessary and proportionate means of ensuring fair competition amongst elite female athletes,” which also implies that he had no quarrels with upholding the 10 nmol/L threshold.

*Arbitrarily Defining the Mid-Normal Range*

Drawing our attention to the fact that the IOC does not have a testosterone level cut-off, encourages us to ask the question then why does the IAAF have one? This, however, is not the first time we have come across this idea of a range or threshold level of testosterone that an athlete must fall within. The first time we see any language

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342 Ibid., 89.
343 Ibid., 86.
similar to that used in the Regulations occurred in the IOC’s Stockholm Consensus and WADA’s definition of a FtM athlete. It is worthwhile to take another look at these two documents because the former is mainly concerned with MtF athletes, while the latter focuses on the converse. Recalling the Stockholm Consensus, it states that a minimum of two years following gonadectomy must pass before eligibility can begin. During this two-year period, the athlete undergoes hormonal therapy which will help to “minimize gender-related advantages in sport competitions.” Although this was written for both forms of transitioned athletes, under the assumption that men are superior to women, it can be inferred that this hormonal therapy is mainly aimed at minimizing the competitive advantages a postpubertal MtF athlete would have over natural women following sex reassignment surgery. As we saw with WADA’s TUE for FtM athletes, WADA is primarily concerned with how to label transsexual as a condition. Once transsexualism is medicalized as a condition, FtM athletes are allowed to use testosterone, despite it being a banned substance, since it, according to WADA, “influences performance measures.” The TUE is meant to “ensure that FtM athletes have physiological androgen exposure comparable with, but no more than, eugonadal men.” Thus, WADA claims the best way to ensure that this level of exposure is met but not superseded is “by using standard testosterone doses as for androgen deficient men.” According to the TUE for “Androgen Deficiency – Male Hypogonadism,” “treatment should use standard testosterone doses which should return the trough

testosterone to mid-normal levels.\textsuperscript{348} Since WADA claims that the treatment of testosterone in FtM athletes should be in accordance with treatment for ‘androgen deficient men,’ we therefore, see the same language of mid-normal levels being used to determine how much testosterone is fair for FtM athletes.\textsuperscript{349}

Although it does not state what defines these mid-normal levels, WADA is doing something very interesting here. If, for a moment, we assume that testosterone is the preeminent determinant in performance differences between men and women as WADA, the IOC, and the IAAF all claim, then WADA is suggesting that it is imperative to regulate how much testosterone a FtM athlete is allowed to be exposed to because if given enough, hypothetically speaking, a FtM athlete could be superior to a natural man with a high level of testosterone. To put it another way, despite the disadvantage a FtM athlete has as a result of going through puberty as a female, if the FtM athlete received an extremely high level of testosterone not found even in men with naturally high levels, not only would the testosterone counteract the female postpubertal disadvantages, but also, it would give the FtM athlete such a performance advantage that said athlete could pose a challenge to naturally high males. Therefore, in order to insure fairness and protect natural men from the potential threat of a FtM athlete, who if not regulated could take an amount of testosterone not found in a natural man, WADA believed it necessary to restrict the amount of testosterone a FtM athlete


\textsuperscript{349} WADA, “FtM Transsexual Athletes,” \textit{op. cit.}, 5.
could take. The arbitrary standard of testosterone that was allowed placed the FtM athlete in mid-normal range, where said athlete would be superior to the cis-male athletes in the low-normal range, while still inferior to the cis-male athletes in the high-normal range.

*Establishing the 10nmol/L Threshold*

At this point, you are probably wondering why I thought it worthwhile to digress in such a way, especially when this analysis focused on transsexual athletes, where as Chand’s case and the Regulations have to do with female athletes who have naturally high levels of testosterone that are within the so-called male range. One of the most obvious reasons why I thought it necessary to backtrack and return to WADA’s TUE is that both cases deal the issue of testosterone and what is deemed a fair level. As previously mentioned, the Regulations state that in order for a female to compete, she must either have an androgen resistance which would mean that she does not receive any competitive advantage from testosterone levels in the male range, or her testosterone levels must be below the male range, which is arbitrarily defined as any level ≥10 nmol/L.\(^{350}\) In defense of the Regulations, Professor Hirschberg and Professor Ritzen claim that the “purpose of the Regulations is to address the position of female athletes who, due to a special condition, have functional levels of serum testosterone that are usually only seen in males.”\(^{351}\) This raises the question as to what defines the normal male and female ranges of testosterone and how did the IAAF arrived at 10 nmol/L as the cut-off? Citing his own study as evidence, Dr. Stéphane

\(^{350}\) IAAF, “Females with Hyperandrogenism,” *op. cit.*, 12.

\(^{351}\) Chand v. IAAF, *op. cit.*, 52.
Bermon claimed that the “median testosterone level for female athletes is 0.69 nmol/L and the 99th percentile for female athletes is 3.08 nmol/L.”\textsuperscript{352} Therefore, to ensure that the Regulations “only appl[ied] to female athletes with a DSD condition or doped female athletes,” it was suggested to “fix a conservative threshold for identifying hyperandrogenic female athletes.”\textsuperscript{353} And so, “starting with the normal female range,” the IAAF was advised to set the upper bound at five standard deviations from the mean, thus arriving at 10 nmol/L, which was considered by the IAAF to be within the normal male range.\textsuperscript{354}

Although the IAAF and its representatives were steadfast in their belief that by setting the cut-off at five standard deviations from the mean, a very lenient upper bound statistically speaking, they were only going to “[capture] female athletes with “\textit{very high testosterone levels, well above the normal female range},”’ this does not account for the fluctuating levels of testosterone from individual-to-individual and from day-to-day, nor does it firmly establish the actual ranges for males and females.\textsuperscript{355} The IAAF claims 10 nmol/L of testosterone is within the normal male range, but where in the range is it? Is it at the bottom, middle, or upper part of that range? Professors Hirschberg and Ritzen claim that “the normal range for the male population begins at around 10.5 nmol/L.”\textsuperscript{356} This, however, would completely contradict the IAAF’s assertion that 10 nmol/L is within the normal male range because two of its leading


\textsuperscript{353} As cited in, Chand v. IAAF, \textit{op. cit.}, 91; \textit{Ibid.}, 93.

\textsuperscript{354} \textit{Ibid.}, 93.

\textsuperscript{355} As cited in, \textit{Ibid.}, 91.

\textsuperscript{356} As cited in, \textit{Ibid.}, 55.
advocates are suggesting that the male range does not even start until 10.5 nmol/L. This idea of only caring about defining the female range and not being concerned with the male range directly points to a fundamental issue Chand raises regarding the Regulations and the IAAF’s understanding of testosterone levels.  

According to Chand, not only do the “ranges of male and female testosterone levels overlap naturally,” but also that the “10 nmol/L threshold is flawed because testosterone levels are naturally dynamic and vary in individuals in response to an array of environmental, physiological and social factors.” This point is validated by the Healy et al study published in 2014 on endocrine levels in 454 male and 239 female elite athletes following competition. The results of the study showed that “there were 74 of 446 (16.5%) men with a serum testosterone below 8.4 nmol/L, the lower limit of the normal reference range, [and that] there were 32 of 234 (13.7%) women with a testosterone level >2.7 nmol/L, the upper limit of the normal reference range.” While acknowledging that men and women have different mean values, the authors are using the data to illustrate that there is “complete overlap” in testosterone levels between men and women. Dr. Bermon even “conceded that if outliers were taken into account then there was a “mild overlap” between the male and female ranges.” However, Dr.

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357 Ibid., 35.
358 As cited in, Ibid., 55; As cited in, Ibid., 35-36.
360 Ibid., 295.
361 Ibid.
362 As cited in, Chand v. IAAF, op. cit., 62.
Bermon continues by reaffirming that testosterone is the ““best available parameter” to explain the performance difference between men and women.”

\textit{A Medical Intervention Needed in order to Compete}

With this understanding of how the IAAF arrived at 10 nmol/L as the cut-off and the counter argument derived from the Healy et al study regarding the fluidity of testosterone levels and the understanding that the two ranges overlap, we can now return to how this cut-off, the WADA regulations on FtM athletes, and Chand are interrelated. Early on in the Award, it was established that the case in hand was not questioning whether or not Chand was a woman or that she had taken exogenous testosterone, but rather that “the case [had] proceeded on the assumption that Dutee Chand [had] an endogenous level of testosterone greater than 10 nmol/L although the actual level [had] not been established.” While the Panel seems to primarily concern itself with resolving the issue of whether or not testosterone does in fact give a competitive advantage, the Panel spends very little time questioning the ethical nature of the Regulations and the idea that through the Regulations, the IAAF is trying to police femininity by defining what constitutes a normal female when it comes to testosterone levels. In regards to whether having a naturally high level of testosterone is considered a form of doping, WADA’s General Counsel and Chief Operating Officer, Mr. Oliver Niggli, wrote a letter submitted by the IAAF to the Panel stating that “\textit{naturally produced substances simply are not prohibited and do not constitute doping}” regardless if, in this case, endogenous testosterone is considered to be above

\textsuperscript{363} As cited in, \textit{Ibid.}

\textsuperscript{364} \textit{Ibid.}, 12.
the cut-off limit.\textsuperscript{365} Not only is “exceeding the specified level of testosterone” not considered a form of doping or any misconduct for that matter, as the IAAF submits, “on the contrary, as soon as an athlete meets the eligibility criteria she is permitted to compete.”\textsuperscript{366} While not explicitly stated in the Regulations, it is implied that all an athlete must do in order to compete again if she has previously been suspended from competition as a result of her testosterone levels being too high is to reduce her testosterone levels so that they are below the 10 nmol/L standard set by the IAAF. Thus, in line with this thinking, Chand need only to seek medical intervention in the form of “surgical or pharmacological treatment” that will reduce her levels below the cut-off in order to compete again.\textsuperscript{367}

Obviously, the idea of being encouraged to seek medical intervention, especially when by all practical measures or definitions the body is completely normal and ‘healthy’, raises ethical and medical concerns.\textsuperscript{368} However, before we can even begin to look at those issues, we must answer the more relevant question of actually how low would Chand have to lower her testosterone in order to compete? If we, once again, accept the assumption that performance is primarily influenced by testosterone, would it not make sense to establish a range that a hyperandrogenic female must fall within? We see it with WADA’s TUE for testosterone for FtM athletes, in which WADA declares that the FtM athlete must be within the mid-normal range. With this in mind and the fact that Dr. Bermon’s study was able to establish a median level of

\textsuperscript{365} As cited in, \textit{Ibid.}, 106.
\textsuperscript{366} As cited in, \textit{Ibid.}
\textsuperscript{367} \textit{Ibid.}, 68.
\textsuperscript{368} Throughout this thesis, the term ‘healthy’ is always meant to be bracketed.
testosterone in elite female athletes, albeit there being far too few studies undertaken to compile a reliable median range in women, this raises the question of how much do hyperandrogenic women need to reduce their testosterone levels in order to be eligible to compete? This clearly seems like a worthwhile question that needs answering, especially if we are to accept the proposition that testosterone impacts performance. Based on this logic, it is implied that a hyperandrogenic woman who lowers her testosterone levels just below the cut-off would still have an unfair advantage over women closer to the median established by Dr. Bermon. If we are truly concerned about upholding fairness and establishing a level playing field, then it would seem in the IAAF’s best interest to adopt similar language to WADA’s, and state that a hyperandrogenic woman needs her testosterone levels to be within the mid-normal range of normal women, which would place her in the middle. However, in the entire Award, this question of whether or not lowering one’s testosterone level “just under the 10 nmol/L threshold,” say to 8 nmol/L, “would upset the level playing field” is posed only once by the Panel to Ms. Radcliffe, “an exceptionally accomplished elite-level long-distance runner,” no less. Despite having a plethora of medical experts on the topic at hand, the fact that the Panel decides to ask an athlete, who admits to having no scientific knowledge on the matter, reflects the Panel’s disregard for establishing a range in which hyperandrogenic women must have their testosterone levels fit neatly in. Although there is no clearly defined range, the fact that the IAAF still upholds that the level has to be below 10 nmol/L is significant in itself. In both this case

369 Chand v. IAAF, op. cit., 99; Ibid., 98.
370 Ibid., 99.
regarding hyperandrogenic women and WADA’s case dealing with FtM athletes, we are witnessing how testosterone levels can be manipulated through surgical or pharmacological interventions in order to either increase or decrease the levels to fit within a desired range.

**Making a “Significant Sacrifice”**

From the onset of the Award, the Panel appears to be solely focused with testosterone’s impact on performance, and does not seem to take issue with the IAAF’s requirement for a hyperandrogenic woman, who is healthy, to fix her body through medical intervention so that she may be eligible to compete. In defense of the Regulations, the IAAF highlights a major benefit achieved through the Regulations:

The Regulations address the concerns of the majority of female athletes, while still giving hyperandrogenic athletes an opportunity to compete. This enables the IAAF to incentivize women to make the significant sacrifices necessary to excel in athletics, while discouraging female athletes from feeling that they must dope in order to compete.372

Recalling Patrick Schamasch’s unapologetic declaration regarding the Stockholm Consensus, this statement suggests that the Regulations were implemented “more to protect” the athletes who were not hyperandrogenic “than to help” the athletes that were hyperandrogenic.373 To fully comprehend how this is the case, let us analyze the latter part of the IAAF’s statement. Within this one sentence, the IAAF is addressing two different groups of women. In the statement’s first half, the IAAF is focusing on hyperandrogenic athletes, while in the second part, it is speaking to normal female

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373 As cited in, Cavanagh & Sykes, *op. cit.*, 78; See page 71 of thesis for reference of quote.
athletes. The IAAF is telling the normal athletes that there is no need for them to dope in order to feel like they are on a level playing field with hyperandrogenic athletes because the normal athletes’ bodies are natural and adhere to the IAAF’s definition of femininity. In other words, there is nothing wrong with these normal female athletes.

On the flipside, when addressing hyperandrogenic athletes, the IAAF chooses its words very cleverly to get across its underlying message. The IAAF is “[incentivizing] women to make the significant sacrifices necessary to excel in athletics.”

Taken out of context, this sentence, along with the entire statement as a whole, seems quite ordinary and benign. Essentially, it says that representing one’s country in international competition with a potential to make history is enough of an ‘incentive’ for a woman to devote her entire life to training, thus, ‘sacrificing’ time with friends and families, putting off education, etc., all while competing fairly and not cheating or tainting the sport and/or image of her nation through doping. However, once this language, especially the ‘incentivizing women’ part, is incorporated by the IAAF in the context of the Regulations, these words acquire an entirely new meaning. In regards to a hyperandrogenic athlete, the significant sacrifice refers to undergoing medical intervention to alter the body in a way that will reduce testosterone levels below the threshold, while the incentive can be seen as reinstatement in competition as a result of her lowering her testosterone levels.

In this sense, how can it feel like sacrifice if the athletes are essentially being forced to seek an intervention if they have any desire to compete again? In terms of the

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374 Chand v. IAAF, op. cit., 69.
375 Throughout this thesis, the terms ‘incentive(s)’ and ‘sacrifice(s)’ are always meant to be bracketed.
form of intervention a female athlete can receive, the IAAF turned to what was considered the medical norms at the time. According to the Award, in the “regular clinical medicine” field, there are primarily two “options” that a hyperandrogenic female can choose from to “prevent further virilisation.” These women can either receive “(i) hormonal treatment to suppress androgens; or (ii) gonadectomy/surgical removal of the source of the androgens.” What is different is that in the general society, while hyperandrogenic women may feel the pressure of societal norms to conform and undergo this intervention, they are by no means being forced. In the end, it is their choice, and it may not have a noticeable effect on their lives. However, the exact opposite is the case in the world of sports. The IAAF defends its position by reassuring the Panel that “in none of the cases under the Hyperandrogenism Regulations was an athlete required to undergo gonadectomy.” While the IAAF does admit that some athletes did proceed to have a gonadectomy, it affirms that these athletes had an alternative choice. If they wanted to, they could have sought out the “hormonal option” which “usually involves an oral contraceptive” and has “few side effects.” The third and final choice these athletes had was to simply hang up the shoes and retire. Thus, the choice is theirs. But is it really a choice? Are they really making a significant sacrifice? They are no doubt making a sacrifice. They either stop doing something that has been the focus of their entire lives, or they unnecessarily alter their body through an intervention. By stating that it is not required to have a

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376 Chand v. IAAF, op. cit., 73.
377 Ibid.
378 Ibid.
379 Ibid.
gonadectomy, or that the athlete has the ‘option’ to seek out hormonal therapy, the suggestion is that the athlete has choices and should not feel compelled to do one thing or the other.\textsuperscript{380} However, the caveat is that if the hyperandrogenic athlete wishes to compete she is actually required to choose one of these options to lower her testosterone. This is supported by the Panel which claims that hyperandrogenic athletes “can immediately resume competing as soon as they meet the eligibility criteria (for example, by taking pharmacological steps to reduce their testosterone levels beyond 10 nmol/L).”\textsuperscript{381} Therefore, the Panel is suggesting that as long as the athlete undergoes some form of intervention, she can compete again. To put it in simpler terms, the Panel is upholding the IAAF’s belief that undergoing an intervention to reduce testosterone levels is required in order to compete.

Based on this analysis, it makes sense why Chand argues that the Regulations “incite scrutiny, suspicion and fear of particular body types and particular modes of gender presentation.”\textsuperscript{382} And as Chand continues, this can lead to “pressure on female athletes to conform to stereotypical expectations of “feminine” behavior and appearance for fear of being investigated and prevented from competing.”\textsuperscript{383} While not explicitly stating it, this is what the IAAF is implying through its statement. The normal female athletes are being told they do not have to alter their bodies because they already adhere to the IAAF’s femininity norms. If found guilty of doping, these women would no longer be accepted as normal, and rather, would be labelled, like the

\begin{itemize}
\item \textsuperscript{380} Throughout this thesis, the term ‘option(s)’ is always meant to be bracketed.
\item \textsuperscript{381} Chand v. IAAF, \textit{op. cit.}, 157.
\item \textsuperscript{382} As cited in, \textit{Ibid.}, 67.
\item \textsuperscript{383} As cited in, \textit{Ibid.}
\end{itemize}
hyperandrogenic female athletes, as deviant. While a doped female athlete is deviant in a somewhat different way from a hyperandrogenic female, since doping is considered illegal for any athlete unless she has received a medical exemption, the irony here is that a doped athlete will usually receive a penalty of “two years’ ineligibility” for a first time offense, while, a hyperandrogenic athlete, who has done nothing wrong, is banished for life, unless she can reduce her natural level of testosterone. In addition, depending on the form of doping and the effects it has on the body, this doped female might still be viewed as someone who continues to observe the need to appear feminine. Thus, they are not labeled deviant because they no longer appear feminine, but rather because they decided to not follow the rules.

Unlike the doped females, who are labeled deviant more because they cheated and less because they do not adhere to feminine norms, the hyperandrogenic female athlete is labeled deviant for precisely that reason. As was seen in how the IAAF handled Semenya’s case, testosterone levels above the female threshold suggested that while the female athlete is a woman, she just might not be 100% woman. This idea can easily be applied to Chand’s case as well. The Panel clearly states early on in the Award, that no one is questioning whether or not Chand is or is not a woman, because it is accepted that she is a woman. And while the IAAF may agree that she is a woman, based on her testosterone levels she is not 100% woman. Therefore, this implies that a hyperandrogenic athlete is considered deviant because she is not woman enough. By lowering her testosterone level under the cut-off, she will no longer be

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384 As cited in, Ibid., 24.
385 Ibid., 12.
considered outside the norms of femininity in regards to testosterone. Consequently, she will be regarded as 100% woman, and thus be able to compete amongst her fellow normal and natural female competitors.

*Just Another Form of Sex/Gender Testing*

Not only is the IAAF singling out women who do not adhere to its definition of what defines a woman based on testosterone levels, but more importantly, this policing of testosterone levels sounds a lot like a form of sex/gender testing. Rather than it being about appearance, like it was when female athletes were subjected to the humiliation of nude parades, or the more scientific chromosome testing, now it is about testosterone levels as the means to adjudicate sex/gender. Dr. Katrina Karkazis claims that while the Regulations “seek to depart from the previous approach to “gender verification” by claiming that testosterone is a scientifically valid marker for sex segregation,” they are still “very similar to the predecessor policies and constitute a form of sex testing.”\(^{386}\)

The IAAF completely denies Dr. Karkazis’ argument by stating that “in contrast to the previous regime, no tests are done to determine the sex of an athlete.”\(^{387}\) Rather, as Professors Hirschberg and Ritzen put it, the Regulations are meant to “address the position of female athletes who, due to a special condition, have functional levels of serum testosterone that are usually only seen in males.”\(^{388}\)

What the IAAF and its supporters appear to be advocating is that while previously they were interested in determining whether the athlete was a man or woman to catch male masqueraders, now, they are only concerned about testosterone levels contributing to an unfair advantage


in women. Ljungqvist supports this through his discussion about how the IAAF was going to deal with the “issues relating to DSD conditions.” According to Ljungqvist, the consensus was that the IAAF was “not concerned with sex or gender verification, but rather with how to deal fairly with athletes with excessive productions of androgens.” As has become apparent, the way the IAAF dealt with these issues was to insure natural women that they did not have to fear competing against someone with male-like levels of testosterone because hyperandrogenic women would not be allowed to compete unless they reduced their testosterone levels to within the normal female range.

*Ljungqvist’s Progressive Nature is Challenged*

In a way, one could make the argument that Ljungqvist and the Regulations are being somewhat progressive and different from earlier forms of sex/gender testing because previously if an athlete failed the test she was banned for life with little to no hope of overturning the IAAF’s decision, whereas, now she has the opportunity to reenter competition. While it did happen occasionally, as we saw with Maria Patiño, being granted eligibility to return to competition was not the norm. However, through these Regulations, the athlete now had the opportunity to keep her dreams alive and compete for her country again. All she had to do was undergo a medical intervention that could have “serious and permanent health consequences.” As Dr. Karkazis points out, if we use this line of thinking, “the focus on hyperandrogenism might seem to be an improvement because the stated aim is to ensure fairness and not to eliminate

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391 Chand v. IAAF, *op. cit.*, 68.
athletes who are not “truly” or “fully” women from women’s competitions.”

However, Dr. Karkazis’ language can be viewed as somewhat ironic precisely because it is this idea of ‘improvement’ that many supporters of the Regulations use to defend the Regulations. In a publication that directly responds to Dr. Karkazis’, Dr. Bermon declares that “drawing a line at any point on such a complex and fraught continuum is an invitation for criticism.” Dr. Bermon continues, however, by claiming that “within the limited purpose of providing for fair competition in sport, a policy that responds with sensitivity to possible cases of hyperandrogenization is a vast improvement over previous efforts.” Dr. Bermon admits that drawing an arbitrary line to define testosterone levels in order to help determine sex/gender is very problematic when sex and gender cannot be reduced simply to testosterone. He then contradicts himself by saying that, while it is bad and will inevitably draw criticism, since this new policy, referring to the Regulations, is a vast improvement to previous forms of sex/gender testing, then this new policy is okay. Essentially, what makes this so ironic is that just because the new policy is an improvement on previous efforts that may have been worse, does not make these new Regulations any better, since they are still causing problems and adjudicating sex/gender through testosterone.

As Dr. Bermon suggests, the Regulations are a vast improvement in regards to how they respond to cases that could cause potential issues, but that is not the only area

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392 As cited in, Karkazis et al., op. cit., 7.
393 Throughout this thesis, the term ‘improvement’ is always meant to be bracketed.
395 Ibid.
of improvement from the IAAF’s perspective. Two major problems the IAAF acknowledges in its previous rules were their “flawed” nature and that they were “based on poor science.” Therefore, in order to “avoid the shortcomings inherent in the old gender verification policy,” in devising these new Regulations, the IAAF set out to create a “new set of rules that reflect[ed] the state of the available science.” Therefore, it is not surprising that Ljungqvist declares the Regulations to be “scientifically sound, as known to science today,” while “[acknowledging] there had been “a history of ignorance” with respect to their predecessors.” Despite the history, Ljungqvist “was confident that testosterone is the “best parameter we have” for explaining the differences in male and female athletic performance.” A fundamental issue that arises with Ljungvist’s statements is their inherent ambiguity. He claims there is a ‘history of ignorance,’ but he does not elaborate on what he means by this. The use of the word ‘ignorance’ is unusual in this context, especially if we are assuming, and I think we can, that he is referring to past forms of sex/gender testing. By using the word ignorance, especially when referring to science, Ljungqvist implies that for decades, the IAAF was unaware of the science and in particular, the inaccuracy of that science as it applied to determining sex/gender. However, as we have seen on numerous occasions, it was not that the IAAF did not know about the problems of using the Barr body test to determine who was a man or a woman, but more that the IAAF actively chose to ignore those problems because this poor science was helping the federation.

396 Chand v. IAAF, op. cit., 145.
397 Ibid.
398 As cited in, Ibid., 65; As cited in, Ibid., 65-66.
399 As cited in, Ibid., 65-66.
achieve its aims of protecting women and insuring fairness. So once again, Ljungqvist comes across as the progressive official because unlike before, now, he and the IAAF are listening to the scientists and following their advice as to what is the best determinant to categorize athletes as either men or women. Up to this point, everything seems all well and good showing that the IAAF is learning from its previous mistakes, but then, Ljungqvist proceeds to state, ‘with respect to their predecessors.’ He, the IAAF, and IOC all seem to want to make the claim that in no way can these Regulations be used in a manner to determine an individual’s sex/gender. In fact, even within the Regulations the IAAF illustrates just how serious it is on the idea of breaking away from its former “Gender Verification Policy,” where it states that “the IAAF has now abandoned all reference to the terminology “gender verification” and “gender policy” in its Rules.”

Even though the IAAF says it is no longer going to use those terms to describe what it is doing does not in fact mean the federation is no longer actually doing it. On the contrary, Ljungqvist makes the grave mistake of lumping these new Regulations with its predecessors, aka the ‘Gender Verification Policy’ and the various other forms of sex/gender testing, thus implying that while these Regulations do not brandish the same name as before, they still come from the same federation with the same agenda.

Where is the Science?

Ljungqvist may try and make the claim that these Regulations are in no way connected to the old forms of testing, especially in terms of the language used to describe them, and in that regard, he is partially correct. While no longer using the

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400 As cited in, IAAF, “Females with Hyperandrogenism,” op. cit., 2.
terms ‘gender verification’ and ‘gender policy,’ the Regulations still pathologize and other the individual who does not fit within the norms by claiming that said individual has a condition. However, where Ljungqvist and the IAAF get into trouble again, is in regards to their claims of adhering to the science available on the matter. According to both Dr. Karkazis and Dr. Bermon “there is no evidence showing that successful athletes have higher testosterone levels than less successful athletes.” While Dr. Karkazis does agree that “there is a relationship between testosterone and competitiveness,” this relationship can only be viewed on an individual basis and not compared between individuals. What Dr. Karkazis is suggesting is that while there is an “optimal level of testosterone” that will help both men and women “achieve their own “personal bests,”” this level is one of many factors that help an athlete achieve their ‘personal best’ and is not a set number, but rather very fluid. To this point, Dr. Bermon agrees that “there is no clear scientific evidence proving that a high level of T is a significant determinant of performance in female sports.” This raises serious doubts concerning the validity of this so-called scientifically sound evidence the IAAF is relying on, especially when one of its leading advocates and medical experts, in Dr. Bermon, admits that there is no scientific evidence.

So the question then becomes what and where is the science? Apparently, Professors Hirschberg and Ritzen “inferred, in their professional opinion, that since testosterone is a significant factor of [lean body mass] LBM, which in turn determines

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401 As cited in, Karkazis et al., op. cit., 8.
402 As cited in, Ibid.
403 As cited in, Ibid.
strength, this hormone is “the best discriminating factor” between male and female athletic performance.”

Obviously, this statement warrants an analysis of the validity to their claims of LBM’s apparent determination of strength, however, that is not what we should be concerning ourselves with. Given our analysis, what should immediately stand out is that Professors Hirschberg and Ritzen ‘inferred’ and used their ‘professional opinion’ to arrive at their conclusion that testosterone is the ‘best discriminating factor.’ How does this not raise red flags? In fact, it does, and the Panel seems to take issue with the IAAF claiming that “the Hyperandrogenism Regulations are based on an implicit assumption that hyperandrogenic females enjoy a significant performance advantage over their non-hyperandrogenic peers.”

Despite questioning the IAAF for using ‘assumptions’ when developing the Regulations, the Panel “accepted that testosterone is the best indicator of performance difference between male and female athletes.” And so, while the Panel was “unable to uphold the validity of the Regulations” based on the lack of “sufficient scientific evidence,” it did grant the IAAF a two-year period during which it could “submit further written evidence to the CAS concerning the magnitude of the performance advantage that hyperandrogenic females enjoy over other females as a result of their abnormally high androgen levels.”

The End is Near?

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405 As cited in, Chand v. IAAF, op. cit., 129.
406 As cited in, Ibid., 149.
407 Ibid., 155.
408 Ibid., 158.
The question now becomes what can we expect to see out of the IAAF as the two-year window granted by the Panel comes to a close. While I cannot predict if the IAAF will in fact be able to produce new scientific evidence that could alter the Panel’s decision, the way the IAAF describes the Regulations as solely being concerned with testosterone levels and not about determining sex/gender raises an interesting question regarding classifications. If testosterone is the best parameter to determine the competitive differences between men and women, and the IAAF is not looking to determine anyone’s sex/gender, could one not imagine a scenario where, rather than using sex/gender classifications, sports would be categorized through arbitrarily defined ranges of testosterone? Based on this logic, men and women with similar testosterone levels would compete against each other because they would enjoy the same competitive advantage as a result of their testosterone levels being similar. While these levels would be arbitrarily set, the positive aspect about this approach is its inclusivity. Like weight, testosterone is fluid. Therefore, if an athlete is unable to drop his or her weight, or in this scenario testosterone, to fit within the lower class, he or she has the opportunity to compete in the one above. Obviously, there is still the matter of qualifying for the main draw, tournament, or event in this new class, but at least athletes, particularly women, would no longer be banished from competition because they did not meet an arbitrary cut-off. This is of course a hypothetical, and it is actually very difficult to find anyone talking about it let alone suggesting this could happen.

So what will happen when the two-year period comes to an end in July 2017? It is difficult to say what role, if any, science will play. Not being able to produce scientific evidence would obviously call the IAAF’s bluff regarding the Regulations
not being about policing and determining sex/gender. However, the real question then becomes what will the IAAF turn to next in an attempt to uphold the sex/gender binary? Following the Award, the IOC released an updated version to its regulations concerning sex reassignment and hyperandrogenism, in which the IOC declared that, in regards to hyperandrogenic female athletes, “rules should be in place for the protection of women in sport and the promotion of the principles of fair competition.”

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Conclusion

On August 12, 2016, Dutee Chand, representing her home country of India, made her Olympic debut in the women’s 100-meter race.\textsuperscript{410} Despite not making it out of her heat and thereby ending her competitive participation at the Games, Chand’s presence on the track at the Olympic Stadium in Rio marked an important moment in Olympic history. As a result of the Panel’s decision, Chand had been granted eligibility not only to compete, but to compete as a female athlete against women. This represented a major step towards finally ending sex/gender testing in the Olympics. However, since this is still an active debate, which hinges on whether or not the IAAF can produce new science regarding testosterone’s performance advantages by the end of the two-year period, it is difficult to draw any concrete conclusions on the matter of the Regulations and sex/gender testing at the current time. Arriving at a clear-cut solution to sex/gender testing was never the aim or objective of this thesis. Rather, this examination was intended to shed light on this troubling aspect of the Olympics that many people remain unaware of as something that has been occurring for more than half a century dating all the way back to the 1936 Berlin Games. Many people, including the athletes, buy into this assumption that what the IOC and IAAF have been doing through sex/gender testing is all in the name of achieving and maintaining fairness, but as we have seen, this is not the case.

At the onset of this thesis, I stated that my aim was to illustrate that through a plethora of standards, including appearance, performance, chromosomes, and testosterone levels, the IOC and IAAF tried to police the sex/gender of female athletes and establish a definition of femininity that adhered to Western ideals, all in an attempt to uphold a sex/gender binary in the world of sports. In order to enforce these standards, the IOC and IAAF implemented various forms of sex/gender testing that singled out female athletes, such as Helen Stephens, Stella Walsh, Renée Richards, Maria Patiño, Caster Semenya, and Dutee Chand, who did not adhere to the IOC and IAAF’s definition of femininity. Through various forms of testing and regulations, such as nude parades, the Barr body test, the Stockholm Consensus, and the Hyperandrogenism Regulations, the IOC and IAAF were able to perpetuate the need to protect normal women from these inauthentic unnatural women all in the hopes of maintaining the ideals of fairness. Although the IOC and IAAF, never waiver from the objective of assuring fairness, as we have seen throughout this thesis, there is a much deeper sociological issue present. The IOC and IAAF are utilizing these tests and regulations in order to establish their own definition of what determines sex/gender and what constitutes a woman as 100% woman. Rather than adopting the medical, legal, and socially accepted views of sex/gender, the IOC and IAAF are adamant in constructing their own views of sex/gender in order to perpetuate a sex/gender binary.

Over the years, individuals, such as Richards, Patiño, and Semenya, have entered the sporting arena and have threatened the sex/gender binary. The IOC and IAAF then react by establishing new tests and regulations that attempt to solve the problem while still maintaining the binary. For decades this cycle of threat, reaction,
and new regulation was on a continuous loop, until Chand finally challenged the IAAF. Although the Panel’s sole focus was whether or not testosterone should be used as the main criterion in determining performance advantages between male and female athletes, through this thesis, I have attempted to scrutinize the more pressing issue the Panel failed to recognize, namely the IOC and IAAF’s desires to use various forms of sex/gender testing that have negatively impacted female athletes in an attempt to maintain the sex/gender binary in sports. However, the issues concerning sex/gender testing do not end with the conclusion of this thesis. Rather, the debate is ongoing and will inevitably be revisited in the coming months and years.
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