

**Too fast and too strong: Examining the discursive construction of ‘females with hyperandrogenism’ in athletics**

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## Abstract

Gender verification tests for female athletes have been contentious since their inception in the 1940s, but they have continued to persist in one form or another. World Athletics' regulations requiring 'suspicious' female athletes to undergo medical examinations to prove their femininity came under renewed popular and legal scrutiny when athletes Dutee Chand and Caster Semenya challenged them in the Court of Arbitration for Sport (CAS). In the ensuing debates, a general agreement emerged regarding what the key problem was: the need to balance 'fairness' for 'normal' female athletes with the inclusion of non-binary athletes. This problematises individual athletes whose bodies defy normative expectations of femaleness while institutional arrangements of modern sport that necessitate sex-segregation as a means of ensuring fairness are left unproblematised. The dominant conception of sport as a test of physical abilities under conditions of fairness and the indexing of athletic advantages to sexual differences, which reflects and reinforces the idea of sport as a confirmation of insurmountable sexual differences is also left unchallenged.

Drawing on a Foucauldian concept of power/knowledge nexus, I critically examine the deployment of medical knowledge and expertise in the production and enforcement of the norms of femininity through the process of regulating entry into women's athletics events. By situating contemporary regulation of non-normative female athletes within the long history of gender verification processes in sport, I offer an account of the discursive production of women with hyperandrogenism as abnormal, threatening subjects in need of medical normalisation. My analysis of the three most recent iterations of World Athletics' policies regulating entry into women's category will focus on examining the underlying problematisations and exploring what remains unproblematised in these policies. I then examine mediated constructions of these athletes as problematic and the ways in which medical knowledge and medical experts are mobilised in these constructions. Examining the court documents from Dutee Chand and Caster Semenya's appeals in CAS reveals the ways in which athletes have attempted to resist the construction of women with hyperandrogenism as problematic. The institutional response to such resistance shows the close imbrication of juridical mechanisms and disciplinary mechanisms in governing athletes.

This thesis questions the taken-for-granted truths about the sexed body and the meaning and purpose of sporting activity which underpin the problematisation of non-binary athletes in sport. Building on a de-naturalised, non-essentialist notion of sex and sexed bodies enables us to challenge cis-heteropatriarchal institutions by developing coalitional politics, articulated on the basis of shared interests and experiences of being disadvantaged rather than on the basis of essentialised notions of shared identity.

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## List of Acronyms

AFI	Athletics Federation of India
AIS	Androgen Insensitivity Syndrome
ASA	Athletics South Africa
BG 17	Bermon and Garnier (2017)
CAS	Court of Arbitration for Sport
CDA	Critical Discourse Analysis
CWA	Committee on Women's Athletics
DHEA	Dehydroepiandrosterone
DHT	Dihydrotestosterone
DSD	Differences of Sexual Development
ECtHR	European Court of Human Rights
FDA	Foucauldian Discourse Analysis
FINA	Fédération Internationale de Natation
IAAF	International Association of Athletics Federations
ICD	International Classification of Diseases
IOC	International Olympic Committee
NHS	National Health Service
PAIS	Partial Androgen Insensitivity Syndrome



PCOS      Polycystic Ovary Syndrome

SAI        Sports Authority of India

WA        World Athletics

WADA     World Anti-Doping Agency

## Chapter 1. Introduction: Policing Entry into Women's Sports

“I have got justice. I am a normal girl” – Dutee Chand, Indian Sprinter (in Fagan, 2015).

In 2013, 17-year-old Dutee Chand became the first Indian to reach the finals of the 100 metres race at the World Youth Championships (Sengupta & Ratnam, 2014). The following year, she went on to win two gold medals – in 200 metres and 4x400 metres women's sprint – at the 2014 Asian Junior Athletics Championships (Padawer, 2016). Given these performances, she was considered a strong contender to win a medal for India at the 2014 Commonwealth Games. However, the euphoria over her breakthrough performances turned out to be short-lived as she was dropped from the Indian squad for the Games. In an eerie replay of the sequence of events that followed South African athlete Caster Semenya's win at the 2009 Berlin world Championships, Chand was subjected to medical examinations to establish if she had hyperandrogenism, i.e., excess endogenous testosterone that would give her competitive advantages over her fellow athletes. These tests, conducted without her informed consent, revealed that Chand had testosterone levels above the permitted limit of 10 nmol/litre (*Chand v. Athletics Federation of India [AFI] & The International Association of Athletics Federations [IAAF]*, 2014). In accordance with the 2011 IAAF Regulations Governing Eligibility of Females with Hyperandrogenism to Compete in Women's Competition, Chand was axed from the Indian contingent for Commonwealth Games. She was also barred from taking part in international athletics events for women unless she underwent Hormone Replacement Therapy to bring her endogenous testosterone level to below 10 nanomoles/litre (*Chand v. AFI & IAAF*, 2014).

Rather than buckle under the pressure to fundamentally alter and ‘fix’ her body, Chand challenged the 2011 hyperandrogenism regulations in the Court of Arbitration for Sport (CAS) (Sudai, 2016). In her filing, Chand argued that these Regulations “discriminate unlawfully against ... athletes who possess a particular natural physical characteristic” (*Chand v. AFI & IAAF*, 2014, p. 2). Her appeal also noted that the Regulations were unscientific and they disproportionately targeted athletes of colour since “to date, they ha[d] only been used against women from developing countries” (2014, p. 6). In its interim ruling in this case, CAS suspended the 2011 hyperandrogenism regulations for two years to give the IAAF/WA<sup>1</sup> time to provide sufficient proof linking elevated endogenous testosterone levels in women to improved athletic performance (*Chand v. AFI & IAAF*, 2014).

In response to this ruling, the IAAF/WA funded research to study the impact of endogenous testosterone on athletic performance in both men and women. Based on the findings of this study by Stéphane Bermon and Pierre-Yves Garnier (2017), the IAAF/WA updated its regulations and adopted the “Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development)” in November 2018, which would apply only to five women’s events: 400m, 400m hurdles, 800m, 1500m, and 1 mile. Under these regulations athletes who identified as women and were legally recognised as such but showed differences in sexual development (DSD) and had high endogenous testosterone would be required to reduce their testosterone to below 5 nmol/litre in order to be eligible to compete in the

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<sup>1</sup> Established in 1912 in Stockholm, Sweden, the International Amateur Athletics Federation (IAAF) changed its name to International Association of Athletics Federations (IAAF) in 2001. This change in name was meant to reflect the shift from amateurism to professional athletics. In 2019, the IAAF changed its name to World Athletics. I will refer to the Federation as IAAF/WA in this thesis to indicate these name changes.

restricted athletics events – “400m races, 400m hurdles races, 800m races, 1500m races, one mile races, and all other Track Events over distances between 400m and one mile (inclusive), whether run alone or as part of a relay event or a Combined Event” (International Amateur Athletics Federation [IAAF], 2018, p. 3). CAS then closed the case, noting that since the original regulations were withdrawn and the appellant – Dutee Chand – was not impacted by the new Regulations as she did not compete in the restricted events, any legal considerations about the new regulations would be outside the scope of the case at hand (A. Brown, 2018). However, this final ruling hinged on a legal technicality and the CAS panel clarified that it had ruled neither on the accuracy or sufficiency of the medical data provided by the IAAF/WA in support of its regulations (*Chand v. AFI & IAAF*, 2014).

The 2018 DSD policy was challenged in CAS by South African athlete Caster Semenya, with support from Athletics South Africa (ASA). In this case, the CAS panel ruled in favour of retaining this prima facie discriminatory policy since “such discrimination [was] a necessary, reasonable and proportionate means of achieving the [IAAF’s] aim of [maintaining]... the integrity of female athletics” (*Semenya & ASA v. IAAF*, 2019, p. 160). The judgement, nevertheless, noted that there were significant practical concerns – pertaining to athletes’ privacy and ensuring their health in the long term – that could arise when enforcing these regulations. These potential issues, however, were not considered material to determining the legality of the 2018 DSD policy. Instead, the court noted that individual athletes could file legal cases against the application of these regulations in instances where it violated their privacy or personal safety. Following this unfavourable ruling, Semenya took recourse to the Swiss Federal Supreme Court which suspended the regulations pending a final decision on the case. Meanwhile, Semenya was allowed to compete without undergoing any hormonal treatment (Ingle, 2019; Bondolfi, 2019). Eventually, the Swiss Court also allowed the DSD

Regulations to stand: when accepting the IAAF's arguments justifying the need for the Regulations, the Court also indicated that it would refrain from interfering with the IAAF/WA's discretionary powers to adopt policies to govern athletes under its purview (*Semenya v. IAAF*, 2020).

Notwithstanding the ultimate failure of Semenya's appeal in having the DSD regulations repealed, the legal challenges initiated salient discussions about the medical and ethical basis for policing entry into women's sporting events by regulating bodies that are deemed inadequately feminine. Intersex\* female<sup>2</sup> athletes are challenging the traditionally sex-segregated world of competitive high-performance sport by exposing the limitations of the binary conception of sex/gender and questioning presumptions of male athletic superiority

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<sup>2</sup> I use the term 'intersex\* female' to indicate that these athletes do not conform to the biomedical norms of femininity instituted by the Eligibility Regulations, even though they were assigned female at birth and identify as women. I have used the asterisk ('\*') to distinguish my use of the term from the way it is employed by sports' governing bodies in their policies.

My use of the term 'intersex\* female' does not imply an agreement with the sports governing bodies' categorisation of these athletes; It is also not intended to ontologise 'intersex' as a sex/gender category, the truth of which can be unearthed or determined through medical examinations. I also acknowledge the provenance of this term in clinical research and diagnostic procedures that attempted to 'treat' and fix sexually ambiguous bodies to make them conform to the sex binary, and the connotations of pathology that still attaches to the term as it identifies people primarily in relation to binary sex categories.

More recently, however, intersex people have reclaimed the term and asserted their intersex identity to resist coercive and therapeutically unnecessary medical interventions aimed at normalising them. But, specifically in relation to the three athletes considered here, it is important to note that neither Soundarajan, nor Semenya nor Chand identify as 'intersex'; they were assigned female at birth and continue to identify as women and are legally recognised as such. Their mistreatment by the IAAF/WA, however, has initiated broader discussions in the society and been used in the fight for the recognition of the rights of those categorised as intersex.

I recognise that 'intersex\* female' is a contradiction in terms as it seems to indicate both an in-between status with respect to binary sex categories, but also a belonging to the 'female' category. Nevertheless, this contradiction cannot be smoothed over easily as we come up against the very limits of language and the worldviews implicit therein when we speak of non-binary people and their experiences; this irreducible contradiction is indicative of these limits.

which underpin the compulsory sex-segregation of most competitive sporting events. Sports' governing bodies have responded by acknowledging the complexities of ascertaining sex differences and the intractability of establishing causal links between particular biological factors and athletic performance. While granting that nature does not neatly divide bodies into 'male' and 'female' categories, governing bodies such as the IAAF/WA, continue to insist on the necessity of maintaining sex-segregation in sport to ensure competitive fairness and protect the interests of female athletes.

### **1.1. Thesis Problem**

In this thesis I study the close imbrication of medical knowledge and policy measures in the problematisation of intersex\* female athletes and their enforced medical normalisation. Building on the theorisation of gender as performatively constituted and the category of (heterosexual) women as formed through normative constraints and exclusion of those who do not fit the category (Butler, 1990; 1993), I argue that in the context of sport, the category of 'normal' female athletes is constituted through the identification and exclusion of intersex\* female athletes who form the constitutive outside for the production of appropriately gendered female athletes. Using the Foucauldian conception of discourses as productive and not merely descriptive of the objects or phenomena that they purport to control (Foucault, 1976/1978; 1975/1995), I argue that these regulations do not merely identify "female athletes with hyperandrogenism" or "athletes with DSD", but they construct these subject positions by employing biomedical norms of femininity, in relation to which certain athletes are rendered 'abnormal'. Discursively constituted as problematic, *abnormal* – as threats to fairness in women's sport – these athletes are then subjected to medical interventions which are framed as therapeutic. I study the inextricability of gender and race in the development

and enforcement of biomedical norms of femininity through these regulations which disproportionately target athletes of colour from the Global South.

I focus attention on the three recent policies adopted by the IAAF/WA: the 2006 IAAF Policy on Gender Verification, the 2011 IAAF Regulations Governing Eligibility of Females with Hyperandrogenism to Compete in Women's Competition, and the 2018 Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development). I examine the deployment of medical knowledge in the development and enforcement of biomedical criteria for femininity through these policies and the changes made to these criteria over time and the consequent shifts in the mechanisms of medical surveillance and medical interventions meant to normalise athletes. Focusing on successive policies helps to trace shifts in policies in relation to cultural attitudes about sex/gender and sexual differences. To understand the material effects of these regulations, I study these Eligibility Regulations<sup>3</sup> with particular reference to their enforcement in the case of three athletes – Indian runners Santhi Soundarajan and Dutee Chand, and South African Athlete Caster Semenya.

In addition to analysing the policy documents, I also employ Foucauldian Discourse Analysis (FDA) to study media's coverage of Santhi Soundarajan, Dutee Chand and Caster Semenya. I examine the foregrounding of medical knowledge and privileging of medical experts in mediated discussions around these athletes' sex/gender. This solidifies the perception that these athletes are medically abnormal and in need of treatment. Additionally, I also identify shifts over time in the mediated constructions of sexual ambiguity, manifested in the shift

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<sup>3</sup> When referring to the three aforementioned policies collectively, I will use the term "Eligibility Regulations".

from implications that these athletes are really men to a more nuanced discussion about gender identity and intersex variations in people. I combine this analysis of the problematisation of intersex\* female athletes in sports governance policies and popular media with the resistance against such problematisation articulated by these athletes, in the form of legal appeals. I study the published court proceedings from *Chand v. AFI & IAAF* (2014), and *Caster Semenya and Athletics South Africa [ASA] v. IAAF* (2018) with a focus on understanding the close enmeshing of juridical institutions and medical knowledge, and the implications of this for the control exercised over intersex\* female athletes. While challenging these regulations in the Court of Arbitration of Sport (CAS), athletes not only concede the centrality of medical knowledge in establishing their right to compete in a category that aligns with their gender identity, but they also draw on the discourse of human rights to argue for inclusion within the existing sporting institutions. Examining the arguments and the final rulings made by CAS in response to these two cases, I explore the limitations of the human rights discourse in challenging the exercise of power through these governance policies.

These Eligibility Regulations have been critiqued for selectively using medical data to develop policies that enshrine white, euro-centric, upper-middle-class notions of femininity as normative (Pieper, 2014; 2016; Heggie, 2010; Munro, 2010; Schultz, 2011; Karkazis et. al, 2012; Kidd, 2018). Cavanagh & Sykes (2006) argue that these regulations and other similar attempts to regulate entry into women's sporting events are manifestations of the collective psychic investment in restoring the threatened boundary between 'male' and 'female' categories. This drive to universalise the category of 'women' on the basis of biomedical criteria is also an exercise in cultural imperialism as it ignores or devalues more localised and culturally variant forms of femininity (Sykes, 2006). Further, scholars of science have also



pointed out that the current focus on endogenous testosterone as the key determiner of masculinity and of athletic outcomes derives from cultural assumptions about the functions and efficacy of the hormone rather than on currently available scientific evidence (Karkazis et.al, 2012; Karkazis & Carpenter, 2018; Brömdal, Olive & Walker, 2020). The ethics of using genetic tests in a non-therapeutic context to determine an athlete's gender has been critiqued as problematic (Wiesemann, 2011).

In her historical analysis of the development of the IOC and IAAF's gender verification<sup>4</sup> procedures, Sonja Erikainen (2020) questions the ontological status of medical 'truths' about the sexed body, noting that the appropriate female body is produced through regulatory practices that police the definitional and categorical boundaries of womanhood. While ostensibly concerned with ensuring fairness in sport, the underlying conception of fairness in the context of sport – generally understood as 'fair competition' – is left largely unproblematised by sports' governing bodies which masks the contradictions inherent in this conception of fairness. Though generally considered a necessary pre-condition for sporting contests, complete equality of competition conditions is unachievable in practice (Caillois, 1961). More recent scholarship has highlighted inconsistencies in the IAAF/WA and IOC's employment of the notion of fairness in regulating athletic advantages and explored the

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<sup>4</sup> I have used the term 'gender verification' procedures to refer to the medical examinations conducted by the IAAF/WA and IOC to establish the athlete's gender. This is in keeping with the sports' governing bodies own terminology for these procedures – the 2006 policy adopted by the IAAF/WA was called the "Policy on Gender Verification".

The choice to refer to these medical procedures as 'gender verification' tests rather than sex verification tests is also informed by the understanding that 'sex' is not merely biological and that medical knowledge does not provide unmediated access to one's 'true' sex. Rather, as Judith Butler and Anne Fausto-Sterling have argued, sex is posited as merely biological by the discourse of gender. To reflect this understanding that sex is always already gender, I have used the term 'gender verification' tests.

possibility for reconceptualising fairness in ways that would render the policing of intersex\* female athletes unnecessary and obsolete (Camporesi & Hämäläinen, 2021a; 2021b).

Building on these arguments, my research resists the problematisation of female athletes with hyperandrogenism and instead focuses on critiquing the dominant conceptions of sport and the binary conception of gender embedded in sporting institutions which renders non-binary bodies problematic. Even within much of the critical scholarship concerning Eligibility Regulations, the underlying conception of sport as a comparative test where athletes compete under conditions of equality remains largely uncontested; this results in a tacit acceptance of the mandate for sex-segregation of sporting events. Inclusion of intersex\* and trans\* athletes then becomes conditional on them fitting into one of the two available categories by fulfilling certain legal criteria or biomedical criteria to ensure their “physiological equivalency” with fellow competitors in the same category (Gleaves & Lehrbach, 2016, p. 312). I argue that valorising ‘fairness’ or ‘fair play’ as the moral essence of sport, ignores the potential that sport, as a meaningful cultural activity, has to narrativise different social and cultural experiences. (Gleaves & Lehrbach, 2016). Going beyond limited arguments for (conditional) inclusion for intersexed athletes within the existing sporting institutions, I aim to explore the potential that these non-binary athletes – or glitching bodies (Linghede, 2018) – hold not only to question our understanding of sport but also the ways in which we constitute the category of ‘women’ in sport and in society in general.

## **1.2. Thesis Structure**

In Chapter 2, I explicate the understanding of power that informs my analysis. I draw on Foucauldian conception of power and knowledge as co-constitutive and mutually reinforcing to challenge the presumed neutrality of medio-scientific knowledge and its claims to

objective truths (Foucault & Gordon, 1980). Building on this conception of power as productive, Judith Butler (1990) argues that gender is performatively produced in that it is materialised and it acquires the appearance of a substance through the embodied performance of accepted gender norms over time. Inverting the conventional conception of gender as constructed on the inert, merely biological substrate of 'sex', Butler argues that sex is itself constituted by the discourse of gender. Sex/Gender is materialised in accordance with the heterosexual matrix which renders those who are homosexual and those who are intersexed as 'abnormal' (Butler, 1990; 1993). Building on this understanding of gender as materialised in conformity with the heterosexual matrix, I argue that the problematisation of intersex\*, trans\* and non-binary athletes in sport is a manifestation of the more general problematisation of trans\* and intersex\* people in the society.

The formulation of power and knowledge as closely enmeshed enables a critique of the use of medical knowledge to problematise and control non-binary athletes. This critique of the use of medical knowledge in regulating female athletes with *hyperandrogenism* and athletes with *Differences of Sexual Development* is not focused on uncovering the objective or ontological truth about the athlete's sex and its impact on athletic performance and outcomes; rather, it focuses on analysing the forms of exercise of power enabled by taken-for-granted truths about sex/gender, athletic abilities and fairness in sport. Understanding the complex interweaving of legal and disciplinary mechanisms of power enables an examination of the limitations of a liberal understanding of the legal apparatus as a realm of formal equality and the relationship between powerful institutions and individuals (Golder & Fitzpatrick, 2009). Theorising this intricate entanglement of law and discipline lays the groundwork for my later analysis of the legal appeals filed by athletes against the Eligibility Regulations.

Chapter 3 details the methodology that I employ in my analysis of the discursive construction of the female athlete with hyperandrogenism and athletes with DSDs. I make the case for combining Foucauldian discourse analysis with the tools of linguistic analysis developed within the tradition of critical discourse analysis to analyse the policies adopted by the IAAF/WA and IOC. While these two approaches conceptualise the relationship between language and reality differently (Markula & Pringle, 2006), they share important common ground in that they are both concerned with analysing the operation of power through discourse. While acknowledging the crucial differences in the ontological commitments and epistemological premises underpinning these approaches, I develop a multi-perspectival framework that incorporates some of the tools from critical discourse analysis more locally to support a close reading of texts, especially policy documents, while working within a Foucauldian understanding of power and knowledge (Jørgensen & Phillips, 2002).

Chapter 4 traces the historical development and institutionalisation of Modern Olympic Games, situating the Games within the context of then contemporary concerns around reviving European identity and defining masculine ideals. Recovering this history, I argue, helps to better understand the cultural coding of athletics as a masculine activity and the ongoing discomfort with female athleticism reflected in the disproportionate policing of female-identifying athletes. The chapter then charts the historical tensions and contestations surrounding women's participation in sport and locates the current iteration of the Eligibility Regulations within a series of formal and informal measures adopted to surveil female athletes and police their embodiment of gender. When outlining the history of gender testing regulations, I will examine how the threat to women's sport has been framed differently at different historical conjunctures, marking a shift from fears about unscrupulous men masquerading as women to concerns about unfair advantages that some women accrue from

high endogenous testosterone. These changes in the apprehension of threat were accompanied by concomitant changes in the testing mechanisms and the criteria used to determine gender. I argue that these paradigmatic shifts in the criteria are not a result of advances in medical knowledge but are indicative of the problems inherent to the project of determining a merely biological, “pre-discursive” sex through procedures of medical examination (Butler, 1990; Fausto-Sterling, 2000).

Chapter 5 turns to a discursive analysis of the IAAF/WA’s Eligibility Regulations, focusing on the texts of the 2006, 2011 and 2018 iterations of the policy, along with the supporting medical consensus documents. While I identify the subtle variations in the way each policy document constructs the ‘problem’, I point to the common assumptions underpinning these regulations and the knowledge claims about sex differences, gender, athletic abilities and the notions of fairness that animate these policies. I examine the ways in which these texts rely on medical knowledge and authorise medical experts as the key arbiters of ‘truth’ about an athlete’s *sex* and the relationship between sexual characteristics and athletic performances. I identify the gaps, silences and inconsistencies that characterise these policies which constitute female athletes with hyperandrogenism as problematic, ‘abnormal’ subjects in need of medical correction, while leaving the conception of fair competition in sport unproblematised.

Chapter 6 presents my analysis of the media coverage of three athletes – Santhi Soundarajan, Caster Semenya and Dutee Chand – who were subjected to medical tests under the Eligibility Regulations. While my analysis identifies some shifts over time in the representation of these athletes, I focus my attention on how these athletes are ‘othered’ and represented as separate and different from ‘normal female’ athletes. The analysis also identifies how knowledge

claims about testosterone and its impact on athletic abilities are authorised by the media, which serves to consolidate the construction of hyperandrogenic athletes as problematic and medically abnormal. Articles in the media also stress that the interests of normal female athletes are presented as opposed to and incompatible with the interests of ‘hyperandrogenic’ athletes. This understanding of irreconcilable differences in interests not only informs popular debates on the matter but also underpins legal arguments presented by the IAAF/WA and IOC in favour of retaining the Eligibility Regulations.

Chapter 7, the final analysis chapter in this thesis examines the court documents from *Chand v. AFI and IAAF* (2014), and *Semenya and ASA v. IAAF* (2018). A discourse analysis of the CAS judgements from the two cases will examine how knowledge claims about ‘sex’ difference and the efficacy of testosterone as an androgenising hormone operate within the legal sphere to justify the attempts to ‘normalise’ women with hyperandrogenism. The analysis will also focus on the CAS panel’s understanding of relevant expertise in its assessment of competing knowledge claims about the functioning of testosterone. This chapter will also examine the challenging intricacies of exercising legal supervision over international sports governing bodies which are neither subject to particular national laws nor to international agreements and conventions. I argue that understanding the operation of the legal apparatus in its complex co-constitutive relationship with disciplinary mechanisms of power would help explain the limitations of the anti-discrimination protections, privacy laws and claims to human rights in winning legal battles for intersex\* female athletes (Foucault, 2003; Golder & Fitzpatrick, 2009).

The final chapter of this thesis draws on the insights gained from examining the IAAF/WA’s Eligibility Regulations to look at some of the more recent policies adopted by international

federations to regulate entry into women's competitions in their sport. The adoption of these restrictive policies that problematise intersex\* and trans\* female athletes reflects heightened concerns about the challenge posed to the binary sex/gender system by those who do not materialise their sex appropriately. These policies strive to maintain the sex binary by highlighting and maintaining a distinction between the athlete's gender identity and legal sex on the one hand and the underlying biological sex as determined by medical experts in accordance with biomedical norms ratified by the sports governing bodies. There is support for these policies from those who argue that women's sport should remain exclusive to 'biological females' who constitute a protected class; but, these policies are also being challenged by those who see them as exposing all women athletes to medical surveillance and control while also furthering the notion of female athletic inferiority. The contestations around these regulations have the potential not only to enable us to rethink the meaning and purpose of sporting activity and reimagine the institutions that regulate sports, but also to reimagine how we understand embodied differences.

## Chapter 2. Theorising Power/Knowledge and the Embodiment of Gender

When the category of ‘woman’ is taken to be natural and self-evident, the social processes through which this category is produced escape scrutiny. In the context of competitive high-performance sport, the category of the legitimate ‘female athlete’ is constructed through a series of informal expectations about appropriate gender embodiment and through the enforcement of formal eligibility criteria used to regulate entry into women’s competition categories. Such eligibility regulations are generally justified by sports’ governing bodies as necessary – if imperfect – measures to ensure fairness in women’s events. However, I argue that these regulations do not merely respond to pre-existing physiological distinctions among athletes that impact sporting abilities and outcomes but produce these culturally significant and meaningful distinctions between athletes, which are then naturalised. I examine this process of construction and naturalisation of embodied differences by analysing the production and regulation of the female athlete with hyperandrogenism through the Hyperandrogenism Regulations and the subsequent DSD Regulations enforced by the IAAF/WA and the IOC.

The following chapter provides an overview of the theoretical underpinnings of this study which draws on a Foucauldian conception of power as not merely repressive but productive of subjects and of ‘reality effects’, to argue that the Eligibility Regulations produce female athletes with hyperandrogenism as threatening subjects to be regulated. Further, the understanding that power and knowledge are closely enmeshed will inform the critique of the presumed value-neutrality of medical knowledge which is used to produce the norms of femininity in relation to which female athletes with hyperandrogenism are cast as abnormal and in need of medical normalisation. Medical examinations to ascertain the ‘true’ sex of the athlete – independent of the athlete’s gender identity and even their legal sex – is



underpinned by the belief in a ‘natural’, pre-discursive sex that can be accessed through appropriate examinations. However, any attempt to unearth the merely scientific truth about ‘sex’ is marked by cultural assumptions since “what bodily signals and functions we define as male or female come already entangled in our ideas about gender” (Fausto-Sterling 2000a, p. 4).

Sex is not a natural, pre-discursive fact, but constituted as such by the sex/gender discourse as part of its own legitimation. This conception of sex/gender enables the examination of the norms underpinning the production of appropriately gendered subjects, which simultaneously produces a zone of those who are abjected or excluded from subjectivity. Those who are thus excluded form the ‘constitutive outside’ which serves to circumscribe the domain of the subject (Butler, 1990; 1993). Building on this insight, I will examine the exclusion of intersex\* female athletes as central to the construction of the legitimate female athletes. However, athletes have resisted their construction as abnormal and challenged the normalising processes imposed on them; Dutee Chand and Caster Semenya filed appeals in CAS challenging the legality of Hyperandrogenism Regulations and DSD Regulations respectively. I will study the legal discussions from these two court cases to examine the potential that legal mechanisms hold to provide athletes their rights to define their gender identity and to ensure their bodily autonomy while also examining the limitations that legal activism comes up against when dealing with mechanisms of power that do not work primarily through prohibitions or by placing limitations on people’s rights.

### **2.1. Power: From Sovereignty to Governmentality**

In contrast to legal models which question the legitimacy of power or institutional models that are centred around the structure and aims of the state, Foucault analyses power as a play

of relations. Power is neither centralised or localised within institutions nor is it a possession of dominant groups; but it is immanent in all social relations including pedagogical relationships, family bonds and sexual relationships such that “[m]echanisms of power are an intrinsic part of all these relations and, in a circular way, are both their effect and cause” (Foucault, 2009, p. 17). Foucault sees power as relational, designating a “complex strategical situation in a particular society” rather than just a set of institutional mechanisms that ensure compliance or a mode of subjugation through rules rather than violence (Foucault, 1976/1978, p. 93). This understanding of power as a dispersed network of relations unsettles assumptions about the unity of purpose and coherence of strategies as an essential property of power; rather, such coherence is achieved in and through practice and is hence open to challenges. “The sovereignty of the state, the form of the law, or the over-all unity of a domination are [not] given at the outset; rather, these are only the terminal forms power takes” (Foucault, 1976/1978, p. 92).

Studying power relations in their specificity provides the means to “create a history of the different modes by which, in our culture, human beings are made subjects” (Foucault, 1982, p. 777). Foucault identifies three modes through which human beings are objectivised into subjects: Scientific inquiry that constructs human beings as objects of knowledge; dividing practices that rely on scientific knowledge to institute a split between subjects or within a subject; and subjectification, or the “way a human being turns himself [sic] into a subject” (Foucault, 1982, p. 778). The divisions between the subjects – such as the division between ‘mad’ and ‘sane’, ‘fat’ and ‘healthy’ – are hierarchical, value-laden and result in differential treatment of those placed in these categories. In his later works, Foucault focuses on the process of subjectification as more complex than mere submission to power. Subjectification is neither unilateral nor total, but a person’s negotiation of their own subjectivity, albeit in

relation to the subject positions available to them, is an integral dimension of the process (Foucault, 1984/1986).

Foucault identifies three broad regimes of power – sovereignty, biopower and governmentality – which have their own modes of enquiry, dividing practices and ways of responding to deviance and resistance. Sovereign power is exercised mainly through the expropriation of products of labour in the form of taxation, prohibitory laws and spectacular punishments. This fundamentally extractive mode of power is characterised by the sovereign’s “right to take life or let live”, which is exercised on the body of those subjected to it in discontinuous and violent ways, culminating in the ultimate extraction – death penalty (Foucault, 2003, p. 240–241; 1976/1978, p. 135–136). Social order under this regime of power was maintained primarily through laws and legal apparatuses that punished illegal acts. In contrast to this, biopower is underpinned by the attempts “to ensure, sustain, and multiply life, to put this life in order” (Foucault, 1978, p. 138). This endeavour to exert “a positive influence on life ... to administer, optimize, and multiply it, subjecting it to precise controls” is not a progression in ethical considerations but a manifestation of an altered political calculus which takes as its object the very productive capacities of the subjects (Foucault, 1976/1978, p. 137). The proliferation of disciplinary institutions in the 17<sup>th</sup> century – such as the school, hospital, psychiatric facility, penitentiary and the manufactory – was accompanied by a concomitant political concern with the population and related phenomena including birth rate, life expectancy and migration. Complex interlinkages were articulated between the economic strength of the nation and the health of its population and techniques were developed to manipulate the biological capacities of the individual to produce effects at the level of the population. It was in this context of increased attention on the body and

bodily drives that sexuality became the privileged locus of control as it was the point of intersection of anatomo-politics and biopolitics.

Foucault situates the advent of biopower with the emergence of modern nation-states in the 17<sup>th</sup> century and the contemporaneous development of the disciplines of human sciences which took 'man' as their object of study (Foucault, 1975/1995). Biopower aims to enhance the productive capacities of those subjected to it while simultaneously rendering them docile through techniques of individualisation and totalisation – a combination of “disciplines: an anatomo-politics of the human body” centred around the individual and “regulatory controls: a biopolitics of the population” (Foucault, 1976/1978, p. 139). The availability of large amounts of observational data combined with sophisticated statistical tools made possible the calculation of averages and norms pertaining to a range of phenomena, and the consequent distribution of subjects in relation to these norms. ‘Abnormal’ or deviant subjects identified through these dividing practices were not merely excluded or punished, but subjected to processes of normalisation, as evidenced in the attempts to cure the ‘insane’ or the ‘homosexual’. Thus, the systematic gathering of information through the observation of the subjects – supported by mechanisms of near-constant surveillance within disciplinary institutions, regular examinations and meticulous maintenance of records – enabled the production of knowledge about the subjects which was in turn used to control them more intensively and effectively.

Power and knowledge are closely allied as “there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time, power relations” (Foucault, 1975/1995, p. 27). Foucault notes that:

[W]e should abandon a whole tradition that allows us to imagine that knowledge can exist only where power relationships are suspended and that knowledge can develop only outside its injunctions, its demands and its interests. . . . We should admit rather that power produces knowledge . . . that power and knowledge directly imply one another. (Foucault, 1975/1995, p. 27)

Power is not merely repressive, but productive in that “it produces reality; it produces domains of objects and rituals of truth. The individual and the knowledge that may be gained of him belong to this production” (Foucault 1975/1995, p. 194). Discourses – or socially accepted ways of producing knowledge – do not merely describe ontologically distinct objects that precede and are external to the discourse, but these objects are produced by the discourse as their effects (Foucault, 1969/1972; Markula & Pringle 2006). Discourses do not merely describe ontologically distinct objects that precede and are external to the discourse, but these objects are produced as the ‘reality effects’ of the discourse. The epistemic rules underpinning discursive production of knowledge function as a “strategic apparatus which permits of separating out from among all the statements which are possible those that will be acceptable within a discourse” (Foucault, 1980, p. 197). These rules extend beyond the merely linguistic realm as hierarchical relationships are instituted between different speakers of the discourse and the formal recognition of experts. Therefore, truth is not outside of power relations but “a thing of this world: it is produced only by virtue of multiple forms of constraint. And it induces regular effects of power” (Foucault, 1979, p. 131). Foucault uses the notion of ‘dispositif’ or apparatus to establish connections between discourses and their material effects. ‘Dispositif’ is defined as “a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions—in short,

the said as much as the unsaid” (Foucault, 1980, p. 194). It is through the functioning of these dispositifs or apparatuses that particular kinds of subjects are produced, for instance, the apparatus of sexuality did not uncover hitherto hidden perversions, but this proliferation of deviants is the instrument-effect of its application (Foucault, 1976/1978, p. 48).

Mechanisms of disciplinary power which functioned primarily within the confines of bounded institutions are eventually untethered from these enclosed systems and become free-floating techniques applied more generally in the society to control the behaviours and actions of subjects through a combination of external controls and internalised norms. This expansion of the domain of political intervention and intensification of control marks the transition from biopower to governmentality. The term encapsulates both the political mechanisms of governance and the knowledge or mentality underpinning these mechanisms as “modern political rationalities and governmental technologies are shown to be intrinsically linked to developments in knowledge and to the powers of expertise” (Miller & Rose, 2008, p. 22). Analytically, this separation between political rationality and practice also opens up the critical space to study the dissonances between the intended claims and objectives of governance and the “‘intentional but non-subjective’ character of regimes of practices, that is to say, their logic, their intelligibility, and even their strategy” (Dean, 2010, p. 4). Foucault connects the emergence of governmentality with modern liberal forms of decentralised governing where the governing of conduct is devolved to a range of heterogeneous state and non-state actors which extends and multiplies its reach. Broadly conceived, “government entails any attempt to shape with some degree of deliberation aspects of our behaviour according to particular sets of norms and for a variety of ends” (Dean, 2010, p. 21). Governmentality functions by constituting a domain within which subjects are rendered visible through processes of knowledge production and the distinctive vocabularies, concepts

and truths this gives rise to. Governance, then, is the art of intervening within this domain to control certain phenomena and constitute particular kinds of subjects, selves, persons, actors in relation to these phenomena; it is the art of “making up’ citizens capable of bearing a kind of regulated freedom” (Miller & Rose, 2008, p. 53). For instance, neoliberal governmentality constructs the domain of the economy “as a particular level of reality constituted by distinctively economic processes rather than as a sphere of positive action on the part of the sovereign” and within this domain, human beings are constructed as rational, self-interested actors (Dean, 2010, p. 160). Mechanisms of governmentality function by enabling subjects to make choices, albeit within a field structured through the use of expertise and services provided by a range of different types of providers (Dean, 2010). Viewed thus, “[p]ersonal autonomy is not the antithesis of power but a key term in its exercise” (Miller & Rose, 2008, p. 54). This conception of subjects as constituted by relations of power and bearing an agency conditioned by subjectification, complicates conventional understanding of the opposition between the state and civil society and between the exercise of power and personal freedoms.

Though these different regimes of power are historically contiguous, they do not simply replace each other successively but continue to co-exist even as the balance shifts from one regime to the other. The field of power relations is constituted by the complex interplay of mechanisms of sovereignty, biopower and governmentality, even as there might be zones where the distinctions blur and a substantive separation between these mechanisms might be difficult to sustain (Dean, 2013, pp. 163–198). While the institutions of sovereignty continue to persist, they cease to be the primary loci of power relations which have expanded beyond the confines of the state-run institutions to saturate all social relations and organise the minutiae of life. Legal apparatuses are inflected by disciplinary logic, as evidenced in the thrust towards reforming the criminal and the broader concern with crime prevention.

Governmental policies that aim to regulate a range of areas from economy to public health do not merely intervene in these domains but constitute these domains as “governable” and produce particular kinds of subjects in relation to the aims and objectives of governance. This multi-faceted concept of power shows that it operates not only at the cognitive level by distorting our understanding of reality through ideological mystification, but it “touches people’s lives more fundamentally through their social practices than through their beliefs” (Fraser, 1981, p. 272).

## **2.2. Power/Knowledge Nexus and the Body**

Disciplinary power is exercised on the bodies of those subjected to it not only intermittently or violently, but in relentless and pervasive ways, as a means to reform the behaviour or character of the subjects (Foucault, 1975/1995; Foucault, 1980). The concept of biopower provides a nuanced framework for examining the subtle, quotidian ways in which the body is shaped by power through a combination of external mechanisms and internalised norms. Biopower has been employed in critical research into the emergence to explain the widespread interest in promoting ‘health’ and concomitant individual efforts to attain a ‘fit’ body through the disciplinary practices of dietetics and exercise (Markula & Pringle, 2006). More recently, Mayes (2015) has examined the expansion of this concern with health and fitness and the emergence of lifestyle as a domain for biopolitical intervention through the regulation of individual choices to ensure the health of the general population. The emergence of the discourse on fitness is allied to the transformation in the control of sexuality from repression to a production of (heterosexual) desire and the injunction to “[g]et undressed--but be slim, good-looking, tanned!” (Foucault 1980, p. 57). In their genealogical analysis of fitness discourse, and the production of the ‘fit’ body, Markula and Pringle (2006)



trace the deployment of normative ideals derived from medical discourse, such as – BMI, ideal body weight – in lending scientificity to the notion of ‘fitness’.

Within the epistemic framework of the fitness discourse, fitness, health and heterosexual attractiveness come to be closely associated and even interchangeable. In *Body Panic*, Wachs and Dworkin (2009) connect the increasing obsession with fitness to neoliberal governmentality and the concomitant marketisation and personalisation of healthcare as the state retreats further from the social field. Medical and moral discourses become entangled within this framework as being unfit is seen as both a medical problem and a moral failing on the part of the individual. This obsession with fitness has a crucial gendered dimension as the ideals for fitness and the disciplinary practices that men and women pursue to attain these ideals are drastically different. Wachs and Dworkin (2009) argue that as women became more visible and active in the public sphere, in visual representations of the ideal female body, thinness was connected with fitness, heterosexual attractiveness and good health (pp. 65-105). Conversely, the ideal for men tended towards bulkier, muscular bodies, as if compensating in the symbolic sphere for the presumed loss of space in the public/political sphere. As these studies indicate, the body does not pose a radical limit to social practices but is constituted in and through these practices (Connell 1987; Butler, 1990 and 1993; Barad, 2003).

As both constitutive of experience in society and constituted by socio-cultural norms, the body occupies an uneasy position in Foucault’s oeuvre as the ‘object’ about which knowledge is produced, on which power is inscribed, through which power circulates but which nevertheless resists complete determination or incorporation by these mechanisms of power. Even as he analyses the calculated insertion of sexuality into discourse in the 19<sup>th</sup>

century and the emergence of a 'scientia sexualis' by which questions of sex were "not only a matter of sensation and pleasure, of law and taboo, but also of truth and falsehood", his examination of gender is limited (Foucault, 1976/1978, p. 56). Apart from the observation that homosexuality was understood as a type of gender inversion, indicative of 'psychic hermaphroditism', his overall analysis still remains curiously blind to gender and gendered differences in the exercise of disciplinary power over bodies, even in the context of sexuality (Foucault, 1976/1978, p. 101).

His account of "the emergence of a new and unprecedented disciplines directed against the body" has nevertheless been adapted and appropriated for feminist analyses (Bartky, 1990, p. 65). Focusing on the exercise of power on the body, Bartky (1990, chapter 4, pp. 63–82) and A. King (2004) examine women's engagement with and their own attempts to meet the ideals of beauty by following the dictates of fashion and subjecting themselves to the discipline of dietetics and exercise. They argue that through a combination of surveillance of female bodies and disciplinary techniques – both in the sense of imposed norms and women's own attempts to approximate these norms – female bodies are produced as more docile than male bodies. Through her critique of the norms of 'thinness', focus on appearance, Bordo (1993, pp. 165–184) notes that feminine responses to the pressures exerted by these impossible standards come to be pathologised as problems of the individual.

Foucault's study of sexuality in relation to power resonated with feminist critique of sexual relations and his expansion of the field of power relations to encompass all social relations was compatible with the feminist problematisation of the division between personal and political realms to interrogate the power asymmetries at play in the former. The argument that though power relations in society can serve to strengthen and reproduce existing economic

relations, their functioning can neither be exhaustively explained nor deduced unilaterally on the basis of prevailing economic relations supported the examination of different systems of power relations at play in a particular society (Foucault, 1982; Dean, 2010, pp. 44–45).

Building on the idea of capillarity of power, several works of feminist scholarship have fruitfully engaged the methodological imperative to examine particular, local instances of exercise of power and examine how they relate to the maintenance and reproduction of broader social order as a corrective against the tendency to deduce the functioning of power on the basis of the aims of the state or its utility to the reproduction of the prevailing mode of production to develop sophisticated analyses of the micropolitics of gendered social relations while connecting this to the institutionalisation of gendered inequalities. Such an ascending analysis can illuminate the fissures and tensions that characterise the exercise of power while also highlighting the contestations it encounters and the subtle modifications in the mechanisms of power in response to these contestations.

However, the conception of power as essentially neutral, the perceived lack of a clear normative grounding for critique, and the destabilisation of the subject as the basis on which social and political rights can be articulated have been seen as analytically insufficient and politically limiting, especially in relation to the analysis of gender where unequal power relations do result in the domination of one group. However, in a retrospective clarificatory note about domination, he acknowledges that the play of power struggles between groups in a social field can congeal into a relationship of domination, “manifest[ing] in a massive and universalizing form, at the level of the whole social body, the locking together of power relations with relations of strategy and the results proceeding from their interaction” (Foucault, 1982, p. 795). Such a conception of domination has been seen to be more compatible with feminist critiques of the deeply entrenched system of inequality that

advantages (cis white heterosexual) men over others. The problematisation of an essentialised conception of identity and concomitant politics of rights and liberation has enabled a critical genealogy of the production of the category of ‘woman’, even within feminism, which has enabled a more thorough examination of the inseparability of the construction of gender from norms of sexuality (Butler, 1989; 1990). The following section examines more closely this conception of gender not as an essential property of an individual, but as performatively constituted – i.e., as materialised over time through repeated performance in accordance with accepted gender norms, which produces the appearance of an interior essence.

### **2.3. Gender as Performative: Imitation with No Original**

The body has been central to Western feminist scholarship focused on challenging biological essentialism and the determination of women’s status on the basis of their biological make up. Maintaining a consistent and rigorous distinction between the (gendered) body as culturally represented and the (gendered) body as lived in, while also establishing the fraught connections between these two levels has posed a significant challenge within feminist theorising, evidenced especially in the “recurrent slippages between biology as a science and biology as body or material flesh” (Roberts, 2007, p. 2). Developing an analytic distinction between biological sex (male/female) and socially constructed gender (men/women) provided the conceptual space to theorise the social process of othering the ‘feminine’ while constituting the masculine as the ‘norm’ (de Beauvoir, 1949/2009). However, early enunciations of this view continued to conceptualise the underlying biological sex – theorised as radically unconstructed, stable and univocal – as determining or, at the very least, defining the limits for the social construction of gender (Connell, 1987; Butler, 1990;1993). This conceptualisation of the relationship between ‘sex’ and gender ceded ground to weak forms of biological essentialism (Connell, 1987).

If (biological) sex is viewed as the radically unconstructed basis for the social construction of gender, then it also means that social construction faces an insurmountable limit in 'biological sex' (Butler, 1990). Accepting such a limit to social construction implies that biological sexual differences that cannot be overcome will inevitably manifest in social inequalities. Addressing the political limitations of this position and the theoretical conundrum that this conception of sex and gender poses requires a thorough reconsideration of 'sex' as well as the notions of social construction (Butler, 1990). Building on Foucault's conception of power/knowledge as productive of truths and subjectivities and the understanding of the body as formulated through the processes of subjectification, Judith Butler (1993) inverts the conventional feminist conceptualisation of the constructed nature of gender by questioning the biological facticity, or the 'ontological thereness' of sex (p. 8).

Butler (1988) argues, that the very act of designating something as natural and unconstructed is itself a task of cultural signification: "if gender is the cultural significance that the sexed body assumes, and if that significance is codetermined through various acts and their cultural perception, then it would appear that from within the terms of culture it is not possible to know sex as distinct from gender" (p. 524). 'Sex' is not natural, inert matter which only confers meaning; "the concept of sex has a history that is covered over by the figure of the site or surface of inscription" (Butler, 1993, p. 5). The radically unconstructed 'pre-discursive sex' which is supposed by the discourse of gender is constituted as such through the operation of this discourse, as part of its legitimation of a hierarchical, heterosexual binary gender order as premised upon 'natural' differences between the sexes (Butler, 1990).

Linking discursive constructions of sex to its materiality, Butler understands 'matter' itself

“not as site or surface, but as a process of materialization that stabilizes over time to produce the effect of boundary, fixity, and surface we call matter” (Butler, 1993, p. 9).

One’s gender then is not the expression of underlying biological sex or an edifice built on the foundation of biological sex, but it is the disciplinary inscription on the surface of the body that produces the effect of an interior essence. Butler sees gender as analogous to performative utterances in language where certain statements do not merely report states of affairs but bring into being these states of affairs. Statements acquire this performative capacity when uttered under felicitous social conditions by those invested with the appropriate social authority. Just as the power of performative statements is dependent upon recognised linguistic conventions and appropriate context, the legitimacy of gender performance lies in its citationality, i.e., in its successful approximation of the recognised social norms that have the power to confer legitimacy (Butler, 1993). Sex/gender discourse functions as a regulatory ideal that produces the normatively gendered bodies that it claims to merely describe. One’s gender is the disciplinary inscription on the surface of the body that produces the effect of an interior essence. Gender is “a set of repeated acts within a highly rigid regulatory frame that congeal over time to produce the appearance of substance, of a natural sort of being” (Butler, 1990, pp. 43–44). However, these performances are not to be understood as voluntarily chosen by an already gendered subject, but one has to assume a gender to become intelligible as a subject at all. Gender performance then is compelled by socio-cultural norms and regulations that govern the legitimacy and intelligibility of gender performance which “demand that we become one gender or the other (usually within a strictly binary frame)” (Butler, 2015, p. 32).

The social norms pertaining to gender performance work within the horizon of the heterosexual matrix which functions as a grid of intelligibility that defines gender as binary by positing masculinity and femininity in mutually exclusive, hierarchical opposition to each other. Within this matrix sex, gender and sexuality are held together in a tenuous unity: appropriately gendered subjects are those whose gender performance is in accordance with the 'biological' sex assigned at birth and who are sexually attracted to the 'opposite' sex. Gender is neither natural nor stable. The coherence, stability and continuity of gender are achieved through repeated performance in accordance with gender norms which not only normalise but also naturalise heterosexuality. While one's gender identity (and sexual orientation) might be subjectively experienced as natural and relatively stable, and appeals to such constancy is a key aspect of demands for recognitions made by transgendered people, Butler argues that such constancy is not an essential feature of gender.

Those who fail to materialise their gender according to the terms of the heterosexual matrix are subjected to regulation which can take on the form of attempts at medical normalisation – as in the case of gay conversion therapy and treatment for gender dysphoria – or outright violence. The discursive production of appropriately gendered subjects also simultaneously produces the zone of those who are 'abjected' – denied social recognition and subjectivity. Those who are abjected form the "constitutive outside" for circumscribing the domain of the subject, in that the discursive production of normal 'men' and 'women' is grounded on the very identification and exclusion of those who are abjected or divested of their recognition and rights as subjects (Butler, 1993, pp. 187–197). Within the framework of compulsory heterosexuality, men are construed as the desiring subjects and women are constituted as the objects of male desire; men's desire for other men is seen as 'abnormal' and in need of

correction, whereas there is no acknowledgement of an original female desire, and consequently no recognition, on its own terms, of a desire of women directed at other women.

In this conception of gender as performative, it is not the radically unconstructed 'sex' but regulatory norms that constitute the foundation for the production of gendered subjects. (Butler, 2004, p. 41). While separating gender norms from their instantiation in social practice can enable their critical examination, these norms cannot be fully decontextualised as they are efficacious in as much as they are embodied in specific contexts. The very need for continual reiteration or appropriate embodiment of the norms that binds individuals to their gender identity also renders the norms radically vulnerable to challenge through altered iterations. The locus of resistance to these norms is not an ontologically stable body which exceeds any attempt at definition or an abiding psyche but "in the arbitrary relation between such acts, in the possibility of a different sort of repeating, in the breaking or subversive repetition of that style" (Butler, 1988, p. 520). The threat that such altered iterations pose to accepted gender norms and the gender binary is thwarted through the policing of gender performance and the devaluing of non-normative expressions of gender as evidenced in persistent, even violent, attempts to normalise those deemed abnormal.

In her initial critical analyses of the sex/gender discourse, Butler focused on the functioning of the heterosexual matrix and the slippage between gender and sexuality which underpinned the reading of one's gender performance as an index of one's sexuality. Given her analytic focus on sexuality, the paradigmatic 'object' for Butler was the lesbian woman whose desire is rendered impossible by the heterosexual matrix. In her later work *Undoing Gender*, Butler (2004) focuses more directly on gender indeterminacy and the unintelligibility under the current gender norms of those who are intersexed and do not fit neatly into either the 'male'



or 'female' category. The process of subjectification does not precede the process of gendering but being appropriately gendered is a precondition for one to become a viable subject at all. Consequently, those who are intersex\* are excluded from subjectivity, unless they submit to normalising procedures to make their gender, sex and sexuality cohere within the terms of the heterosexual matrix. While the exclusion and abjection of intersexed people makes their lives as intersexed people effectively unliveable, their marginalisation also provides a critical distance from the prevailing norms which enables their interrogation. Resisting incorporation into the available gender categories unsettles the norms underpinning the coherence of these categories, thereby opening up possibilities for alternate subjectivities.

Bodies that defy easy categorisation into one of the two available sexes pose a potent challenge to the notion of a sharp distinction between the sexes and are hence rectified and invisibilised through procedures of medical normalisation (Fausto-Sterling, 2000a). For those considered intersexed, "the ideality of gendered morphology is quite literally incised in the flesh" (Butler, 2004, p. 53). Variations in sexual/gender development are still construed in pathologising terms as "disorders of sexual development" as evidenced in the World Health Organization's International Classification of Diseases (ICD-11). Such pathologisation and consequent medicalisation of these variations provides legal sanction and legitimacy for normalising procedures – irreversible surgical interventions generally conducted on those who are too young to provide informed consent to such procedures (Carpenter, 2018; 2016). These attempts to medically fix intersex bodies derive more from cultural anxieties and fears about integration in the society, rather than any medical necessity (Fausto-Sterling, 2000a, pp. 30–77; Carpenter, 2018). I argue that the problematisation of women with hyperandrogenism in sport and the exercise of medical power to normalise them represents a

specific instance of the more general medical problematisation of variations in sexual development.

#### **2.4. Non-Binary Bodies in History: from *Hermaphroditism* to *Intersex***

The following section draws on works of historical scholarship to trace the emergence of the currently dominant *two-sex* model which structures much contemporary medical knowledge and research on the embodiment of sex. Tracing the historical differences in the way that the *sexed* body has been conceptualised in legal and medical terms (in the West) demonstrates that the body is not an a-historical constant, “in some sense there, pre-given, existentially available [and ontologically distinct and intact] to become the site of its own ostensible construction” (Butler, 1989, p. 601). Rather, the (sexed) body is “simultaneously a physical and symbolic artefact . . . both naturally and culturally produced” (H. King, 1998, p. 5).

Materiality of the body cannot be meaningfully disentangled from the “ideational or cultural meanings that constitute bodies within specific social field” (Butler, 1989, p. 602).

Articulating the relationship between material and discursive forces in the constitution of the body within a social field involves not only a study of the “‘history of mentalities’ that would take account of bodies only through the manner in which they have been perceived and given meaning and value; but a ‘history of bodies’ and the manner in which what is most material and most vital in them has been invested” (Foucault, 1976/1978, pp. 151–152). Accordingly, in outlining the emergence and dominance of the ‘two-sex’ model and the consequent medicalisation of ‘intersex’ variations, I also historicise the authorisation of medical experts as the arbiters of the truth about the sexed body and the concomitant efforts to medically normalise ‘abnormal’ bodies. The medical problematisation of intersex\* female athletes with high testosterone levels and chromosomal variations can be situated within this long history of attempts to medically normalise of people to make them conform to the sex/gender binary.

### 2.4.1. *Sexing the Body: From One to Two-Sexes*

In contrast to contemporary Western conceptualisation of *sex* as sharply dimorphic and sexual characteristics as mutually exclusive, *one-sex* model, where male and female bodies were seen as substantially similar held currency even until late eighteenth century (Fausto-Sterling, 2000a, p. 30–77; Laqueur, 1990). The origins of this “one-sex model” has been traced back to ancient Greek conceptions of the body where ‘male’ and ‘female’ bodies were seen to differ not in kind but in their degrees of metaphysical perfection: “women [were] inverted and hence less perfect men” (Laqueur, 1990, p. 26). Within this framework, men’s and women’s reproductive organs were seen as formally isomorphic and even bodily fluids such as semen and milk were understood as substantially similar concoctions derived from blood and hence to be found in all bodies. This Galenic one-sex model co-existed with the Hippocratic model of the female body as thoroughly different and consequently plagued by qualitatively different diseases and in need of specialised medical care (H. King, 1998). However, writers working with the Hippocratic model did not see *male* and *female* bodies as dimorphic but placed them at opposite poles of the same continuum (Dreger, 1998, p. 32). While medical historians trace modern gynaecology back to this Hippocratic model of the female body, H. King (1998) cautions against treating this ancient Greek conception of the body as commensurate with contemporary conceptions of the female body under the two-sex model: “We cannot assume that there is some common ‘reality’ lying beneath the surface of medical texts such as the Hippocratic corpus: the human body, historically constant, naturally given” (p. 6).

This one-sex model, however, does not imply a lack of social distinction between men and women. Rather, this distinction and consequent social hierarchy were not rooted in perceived

biological differences between the *sexes*; biology was understood as merely recording the “higher truth” about the cosmic order which placed men above women (Laqueur, 1990, p. 26). This one-sex model with the male as the canonical body persisted well into the early modern era, surviving the shift to empiricism and the ensuing focus on establishing irrefutable facts about the body through close observation. Successive anatomical and histological observations made in the renaissance period – some of which challenged aspects of this model – were nevertheless framed within the epistemic framework of this model, so that “a whole world view [made] the vagina look like a penis to Renaissance observers” (Laqueur, 1990, p. 82). Even as there were two social statuses – genders – that derived to this *one sex*, the relationship posited between social status (gender) and biological sex under this epistemic framework does not correspond with the contemporary framing of the gender as the socio-cultural construction on the base provided by biological sex.

The boundaries between ‘sexed’ bodies were thought to be porous, susceptible to be broken by an increase in body heat: it was believed that women, through their pursuit of ‘masculine’ activities, could heighten their body heat and consequently push their uterus outwards to form a penis. Stories of women who had purportedly undergone such transformations were narrated as tales of caution. However, within this cultural imaginary, men could not naturally transform into the women as they were less perfect than men and “nature tends always toward what is most perfect” (Laqueur, 1990, p. 127). In these narratives of gender transformation, literal and metaphorical phallus are practically indistinguishable. In analysing the conception of sexed bodies in the renaissance period, Laqueur (1990) notes that in this period: “... there is no “real” sex that in principle grounds and distinguishes in a reductionist fashion two genders. Gender is part of the order of things, and sex, if not entirely conventional, is not solidly corporeal either” (p. 128).

Gender indeterminacy and transgression of gender boundaries – without the accompanying natural or spontaneous anatomical changes – still posed a potent threat to the social order, however it was not cast primarily as a medical problem, but as an issue of sorting bodies into a juridical category with the attendant rights and responsibilities (Laqueur, 1990, p. 134).

Evidence from court documents from the 1500s to 1700s pertaining to cases against women attempting to pass off as men, even usurping men's sexual role, indicates that they were punished severely for their attempts to acquire a higher social status. These concerns with breaking gender boundaries, though, were not primarily treated as medical issues but situated within the context of broader fears about maintaining entrenched hierarchies of social status. When the intervention of medical professionals on the issue was sought, it was to ensure that the bodily signs corresponded to social status they were meant to signify, rather than to establish the ontological truth of the sexed body (Laqueur, 1990, 114–148).

Records of exemplary cases from England, France and Italy from the 16th and 17th centuries indicate that these countries handled the legal and religious questions emerging from cases of gender ambiguity and gender transgression in different ways. In cases of gender indeterminacy or *hermaphroditism*<sup>1</sup>, lawyers and judges held the authority to designate a gender status, and they relied on physical appearances, external genitalia and their own notions of masculinity and femininity to arrive at decisions (Laqueur, 1990; Fausto-Sterling, 2000a; Dreger, 1998). Once the judgement was passed, *hermaphrodites*<sup>5</sup> were nevertheless,

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<sup>5</sup> The term 'hermaphrodite' was used in the 18th and 19th century to refer to those who were understood to have aspects of both 'male' and 'female' sexual characteristics. The term is no longer used as it is considered insensitive and offensive. However, in keeping with the work of researchers such as Alice Dreger and Anne Fausto-Sterling, I have retained the use of the term here, so as to not conflate the medical and cultural understanding of sexual ambiguity in that time period with

required to assume the “sex which dominates their personality” (Fausto-Sterling, 2000a, p. 36). While in some instances the *hermaphrodites* themselves were also involved in the decision-making process, the decisions were made mostly without any reference to what would contemporarily be understood as their gender identity – a personal and deeply held sense of what gender one belongs to.

The shift, in 18<sup>th</sup> century, from the “one-sex” model to the current “two-sex” model, Laqueur argues, was not only an epistemic change but a working out of the socio-cultural and political tensions of the time – a result of the search for alternate, secular explanations for a hierarchical social order that could no longer be justified on the basis of the religious mythology of the great chain of being. The emerging liberal political vision of an egalitarian society with equal legal and political rights for all had to be reconciled with entrenched social hierarchies between men and women, and between men of different races. It was in this context that bodies were reinterpreted as bearers of capacities that determined social outcomes and differences in social status between women and men (and between men of different races) were explained in a reductive manner through theories of corporeal causation of social phenomena; consequently primacy was accorded to biology as a value-neutral, scientific discourse about the body (Laqueur, 1990, pp. 193–244). It was within the context of this search of biological explanations and justifications for social differences between men and women that “biomedical discourse first included a concept of sex that is more familiar to our present-day interpretations of the male and the female body” and the focus shifted to studying bodily differences between the sexes; these differences were thought to penetrate

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contemporary understanding of variations in sexual development or intersexuality. Such a conflation would efface key differences in the medical and cultural understanding of those classed as sexually ambiguous - differences that this account aims to track.

“every muscle, vein, and organ attached to and molded by the skeleton” (Oudshoorn, 1994, p. 7). Though Laqueur (1990) resists positing a decisive victory of two-sex model over one-sex model in the 18<sup>th</sup> and 19<sup>th</sup> centuries, his account of the focus on corporeality and the production of scientific knowledge about the body can be framed within the emergence of biopower in the 18<sup>th</sup> century, and the ensuing attempts to control the body through the control of sexuality – which is inseparable from the construction of sex/gender.

With the renewed focus on the corporeal, the body was the object of study for new normative disciplines which became the privileged discourses for producing *truths* about the body. The development of statistical methods in the early nineteenth century aided in the calculation of ‘norms’ pertaining to various aspects of human development, including sexual development. *Teratology* emerged as a separate discipline which took as its object bodies that fell outside the norms; these “monstrous” bodies were studied as a way of understanding the ‘normal’ human bodies better (Dreger, 1998; Fausto-Sterling, 2000a; Laqueur, 1990). *Hermaphroditic* bodies that did not fit the norms for either male or female became the objects of study as researchers attempted to learn more about ‘normal’ male and female sexual development. With the understanding of “[n]ature [as] one whole”, French anatomist Isidore Geoffroy Saint-Hilaire attempted to develop a single, holistic “‘anatomical philosophy’ which would at once describe, explain, and predict all normal and abnormal forms” (Dreger, 1998, p. 33).

Based on his extensive research on *hermaphrodites*, Saint-Hilaire developed a framework for assigning sex on the basis of characteristics found in the “profound portion” (ovaries, testicles, or related structures) “middle portion” (internal sex organs) and “external portion” (genitalia) (Fausto-Sterling, 2000a, pp. 36–39). As Saint-Hilaire’s research provided an explanation based in nature for variations in sexual characteristics, such variations became

primarily a medical problem to be corrected through surgical and pharmacological interventions. Saint-Hilare's influential classificatory scheme laid the foundation for future work that distinguished between 'pseudo-hermaphrodites' and true hermaphrodites – those who had the gonads (ovaries or testicles) and internal sex organs of both sexes. This classification is seen by some as an acknowledgement of five sexes – female, male, female or male pseudohermaphrodite, and a true hermaphrodite (Vilain et al., 2007). However, identification and acknowledgement of variations does not equate to acceptance (Laqueur, 1990); hermaphroditism is framed as 'abnormal' primarily in reference to the male/female sex binary (Dreger, 1998; Fausto-Sterling, 2000a). Further, the distinction between 'true' and 'false' hermaphroditism led to the dismissal of most variations in sexual development as mere 'false' hermaphroditism which needed medical correction (Dreger, 1998).

Research on bodies that defied expectations of 'normal' sexual development was central to mapping the 'normal' trajectory of sexual development and the construction of the biologically normal 'male' and 'female' bodies in the 19<sup>th</sup> century (Dreger, 1998). With the increased medical and popular attention on hermaphroditism and the strengthening of belief that the underlying truth of the biological sex of the body could be unearthed through medical examinations, meant that the mantle of assigning sex in cases of ambiguity passed over to the doctors (Fausto-Sterling, 2000a; Laqueur, 1990). Social and medical authority accorded to medical professionals to adjudicate on the matter of sex on the basis of their medical knowledge was forged through their encounters with hermaphroditism (Dreger, 1998).

It was in response to the challenge posed by bodies that eluded categorisation into the sex binary, that the medical standards for 'male'ness and 'female'ness were developed (Dreger, 1998; Griffiths, 2018). Over time, the determining criteria for medically fixing sex shifted



from a focus on the presence of gonads in what Dreger (1998) terms as the “Age of the Gonads” (from 1870-1915) to a consideration of secondary sexual characteristics in addition to the presence of gonadal tissues and the consideration of each case as a whole (p. 29). An acknowledgement of the complex physical and psychosocial factors that determine a person’s true sex and consequent shifts in determining criteria do not indicate a change in the assumptions about the underlying sex binary as there was continued “interest in maintaining clear, medically sanctioned divisions between the two sexes in each individual case and in society as a whole” (Dreger, 1998, p. 165).

With increasing medicalisation and the stripping away of mythical connotations associated with *hermaphroditism*, in the early decades gender ambiguity were understood as instances of intersexuality rather than as hermaphroditism, mostly following Goldschmidt’s (1917) use of the term in 1917. This shift in medical categorisation presents a reconfiguration of the relationship among (biological) sex, gender and sexuality, and marks a change in the understanding of the biological and psychological aspects of gender and sexuality (Griffiths, 2018). *Intersexed* bodies – bodies that were understood to have biological *abnormalities* which problematised the coherence of gender identity and sexuality were seen as deserving of sympathetic and corrective medical attention to help them fit into one of the two available sex categories. However, people who questioned their assigned gender roles and problematised heterosexual expectations, but did not show any medically discernible signs of ‘abnormalities’ in sexual development, were seen as being in need of normalising psychological treatment to make them conform to their assigned gender roles and meet expectations of heterosexuality. This medical understanding of *intersexuality* was at the heart of maintaining a distinction between homosexuality and heterosexuality while also pathologising transgendered identities. Homosexuals and transgendered people were seen as

consciously transgressing their assigned sexual and gender roles while intersexed people were understood to be suffering from a medical abnormality, rather than being consciously transgressive (Griffiths, 2018).

The invisibilisation of ‘abnormally’ sexed bodies through enforced medical treatment was (and continues to be) central to maintaining a binary conception of gender (Fausto-Sterling, 2000a; 2000b; Butler, 1993). Surgical interventions on those with atypical sexual characteristics were commonly practiced in the UK in the 1930s. Most of these recorded *corrective* medical procedures targeted virilised women who were diagnosed with adrenogenital syndrome – an overactivity of adrenal gland (Griffiths, 2018). While such treatments involved an element of consultation, the doctor’s assessment of the *true* sex of the person was privileged over the *intersexed* person’s understanding of their own sex/gender. Further, the treatments were underpinned by a belief in the “the ability of medical intervention (whether surgical, hormonal, or psychotherapeutic) to create and maintain a dichotomous, two-sex model of sex and sexuality” (Griffiths, 2018, p. 481).

In the mid-20th century, most procedures and protocols to treat intersex conditions in the US and in the UK came to be based on research conducted by John Money in the John Hopkins University in the 1950s. Surgical interventions suggested were premised on the distinction between biological sex and gender or socially molded behaviour patterns. Gender identity was understood to be malleable until 18 months; hence, it was recommended that adjustment surgeries be performed on infants under this age as later interventions can present complications in psychosocial adjustment (Fausto-Sterling, 2000a, pp. 45–77). However, even before Money’s ideas about sexual development became the recognised standard in the field, advancements in paediatric urology and attempts to standardise care across the National

Health Service (NHS) had already meant that identifying and ‘fixing’ issues of intersexuality in children had become regular practice in the UK; Money’s theories of the development of sexual identity in childhood then presented not a radical break but functioned as a confirmation for these processes of “humanitarian” interventions meant to help the “the child’s psychological development” (Griffiths, 2018, p. 489).

Babies born with mixed genitalia or with a mismatch between their gonads and external genitalia were surgically adjusted to fit one of the two available sex/gender categories. The decision on which sex to assign was based on what made the best sense, surgically. Such surgical interventions by medical professionals were seen as a means of “[c]orrecting nature’s mistakes” or as “merely completing nature’s intentions” (Fausto-Sterling, 2000a, p. 37; 2000b, p. 20). Parents were generally not consulted for these procedures, which were often medically unnecessary; instead, they were merely asked to raise the baby as a boy or girl as the case may be (Fausto-Sterling, 2000a, pp. 30–77).

The emergence of the legal doctrine of informed consent in the mid-20<sup>th</sup> century did little to challenge or problematise these interventions meant to ‘fix’ intersexed bodies as these procedures were performed on infants and young children who could not legally provide consent to such procedures. The requirement for voluntary consent, and other protections that addressed the power imbalance in the doctor–patient relationship were rendered ineffectual in these cases (Griffiths, 2018). Only in the last decade or so, rights of intersexed people to not undergo non-consensual sex re-assignment procedures have been legally recognised in some parts of the world. In 2015, The Council of Europe recognised intersexed individuals’ rights to not undergo gender reassignment treatments and Malta became the first country to legally recognise “bodily integrity and physical autonomy” (Carpenter, 2016, p. 77). The Australian

Senate has run inquiries into the coerced medical treatments done on intersexed individuals and in 2014, Canberra changed its birth certification laws to include 'X' as a third gender category (Carpenter, 2014). In 2015, the Council of Europe acknowledged the rights of intersex people to not undergo sex reassignment, and around the same time, Inter-American Commission for Human Rights also called for re-examining the medical classification of intersex traits (Carpenter, 2016, pp. 77–78).

The problematisation of athletes with intersex variations can be placed within this context of ongoing pathologisation and medical correction of those bodies that do not conform to the binary categories of male and female. As the rigid sex/gender binary is being challenged and more complex accounts of sexual development and sexual differences are being developed even within medical discourse, sports' governing bodies continue to posit the sporting arena as an exceptional realm, hermetically sealed off from these wider socio-political developments. Within this rarefied realm of sport, determining the underlying biological 'truth' about the athlete's sex is presented as consequential to ensuring the fairness of athletic contests. Sports' governing bodies rely on "biomedical sciences [as] the providers of objective knowledge about the "true nature" of the body" (Oudshoorn, 1994, p. 7).

Accordingly, the current biomedical criteria used to regulate entry into women's category in sport is a combination of hormone levels and chromosomes. This is in accordance with the current conception of the "essence" of femininity as located not in particular organs, but in sex hormones" (Oudshoorn, 1994, p. 7). The following section traces the emergence of this hormonal conception of sex and sexual differences.

## **2.5. Sex Hormones: Messengers of Masculinity and Femininity**

“The Greeks believed in the wandering womb, while we believe in hormones.” (H. King, 1998, p. 7).

In the 18<sup>th</sup> century, with the increased medicalisation of bodies the search for *the* biological factor that determined sexual development and sexual differences intensified. While the gonads were considered the seat of masculinity and femininity in the late 1800s, clear hypotheses about the causal mechanisms through which the ovaries and testicles exerted effects on the body were only forwarded in the 1920s. While the effects of castration on animals were known, Arnold Adolf Berthold, following his experimentation with castrating and transplanting testes in roosters in the 1849 surmised that the testicles produced secretions that were blood borne (Oudshoorn, 1994). Following this discovery, organotherapy – “treatment with organ extracts” – mostly from the ovary and testes of animals gained popularity and notoriety in the subsequent decades. But the idea that chemical secretions that circulated through the blood stream – rather than the nervous system alone – impacted behaviour gained wider acceptance only following Ernest Starling’s work on pancreatic secretions in 1905 (Roberts, 2007; Fausto-Sterling, 2000a). It was following the discovery of hormones that in the 1910s that “the prescientific idea of the gonads as agents of sex differences had been transformed into the concept of sex hormones as chemical messengers of masculinity and femininity” (Oudshoorn, 1994, p. 21).

With the discovery of the hormones, the seat of femininity and masculinity shifted from the gonads to the secretions of the gonads. Early studies examined the effects of these secretions on the “development of homologous sexual characteristics”, and later research conceptualised male and female hormones as antagonistic, thereby harmonising the functioning of hormones with the two-sex model and the dualistic “idea that each sex had its own specific sex hormone” (Oudshoorn, 1994, pp. 22–23). In the 1930s, the discovery of *female* hormones in

male bodies and *male* hormones in female bodies threw into question the notion of hormonal dualism. Various explanations were postulated for these observations that seemed anomalous from within a dualistic framework. Initial hypothesis that this could be attributed to hormones in food was later replaced by the supposition that the adrenal glands in male bodies, rather than the gonads, produced female hormones. This supposition left the gonads intact as the locus of masculinity. Later hypothesis held that male hormones produced by the testes were converted by the body into female hormones; biochemists supported this hypothesis by pointing to the chemical similarities between male and female hormones. This possibility of interconversion of hormones in the body unsettled the dualistic framework, which was recuperated in an altered form by postulating that gonadotropic hormones secreted by the pituitary gland controlled the production and interconversion of *sex* hormones. Hormones were now understood to function through a complex feedback loop involving the brain (Oudshoorn, 1994, pp. 30–36).

The succession of hypotheses that were postulated in the 1920s and 1930s to explain the production and functioning of *sex* hormones show that the corporeal seat of masculinity (and femininity) shifted and eventually morphed into a more intricate network incorporating other organs. By the 1930s, the dualistic framework and consequent labelling of hormones as male and female sex hormones were contested by some researchers on the basis of the hormones' biochemical similarities, their interconversion in the body and their functional homologies (Oudshoorn, 1994, pp. 23–26). The classification of these secretions as 'sex' hormones was also challenged as further observations indicated that their functions extended beyond what was conventionally understood as processes of sexual development. However, the binary classification of hormones as *androgens* and *oestrogens* continues to persist in scientific literature, research and in popular imagination. Observations regarding the impact of these

hormones on various organs and their function beyond sexual development has not unsettled this dualistic framing; conversely, such observations have led to the sexualisation of different bodily functions that were previously understood to be unrelated to sex/sexual development (Roberts, 2007).

Over the years, testosterone has been mythologised as the efficacious causal agent for a host of masculine traits and social behaviours ranging from physical strength to competitiveness and appetite for risk. However, such studies that attempt to explain social behaviours on the basis of ‘biological’ factors invest hormones with the power to override “complex situational, personal and collective determinants of individual behaviour to remain the ultimate determinants of its social consequences” (Connell, 1987, p. 71). Research questions tend to be structured by prevailing assumptions about the nature of sex hormones and gendered behaviour, and in turn the findings reflect and reconfirm these assumptions (Connell, 1987). In the context of sport, testosterone has come to be considered an all-purpose advantage factor as it is correlated to increased Lean Body Mass which is understood to enhance physical strength leading to improved athletic performance. However, conclusions from clinical studies linking testosterone in men to athleticism are not as unequivocal as the cultural mythology surrounding the potency of the hormone in determining athletic success would suggest. In their review of studies examining the link between testosterone and ‘athleticism’, Jordan-Young and Karkazis (2019) note that generalisations about the positive impact of testosterone on “physical strength” and consequently on athletic performance elides the specificities of the impact of endogenous and exogenous testosterone on the body. These generalisations also rely on assumptions about the translatability of any observed gains in physical strength into better athletic performance, regardless of the specific skills required for a particular sport (2019, pp. 159–201).

Hyperandrogenism and DSD policies rely on generalisations made from research linking testosterone to enhanced athletic performance. Research into the impact of androgens, specifically testosterone, on athletic performance is situated within the epistemic framework of the two-sex model and the attendant framing of testosterone as a *male* hormone responsible for naturally masculine traits and characteristics, including “athleticism”. Current eligibility criteria for participation in women’s category are centred around the level of ‘male’ hormone testosterone, with the understanding that even naturally high endogenous testosterone confers *unfair* athletic advantages to intersex\* female athletes. This focus on testosterone, in conjunction with genes, is not a result of better science and progressive uncovering of scientific truths about sexed bodies and athletic capacities; rather, it is premised on the construction of hormones as the corporeal locus and ‘messengers’ of masculinity and femininity. This discursive construction of testosterone and its implications for the control of intersex\* female athletes will be examined further in the analysis of policy documents, media coverage and court proceedings.

## **2.6. Gender and Race**

The conception of gender as performative and relationally constituted through social recognition of one’s gender performance rather than as an inherent characteristic of a person challenges foundationalist assumptions about the pre-existing category of ‘women’, and the corollary notion of a “universal patriarchy” or the “universality of the structure of domination” that can explain the oppression of women cross-culturally and across historical contexts (Butler, 1990, p. 30). Gender is neither singular nor produced by a single structure of domination but constituted through the interplay of multiple axes of power relations (Crenshaw, 1991; hooks, 1981; Lorde, 2007). While a distinction between these axes can



serve analytical functions, they are neither arranged in a hierarchical order of originality and derivativeness nor are they “discrete, sequential [and] co-exist[ing] along a horizontal axis” but they converge “within the social field” (Butler, 1990, p. 19; cf. Carastathis, 2013).

The universality of the ‘woman’ who is oppressed by patriarchy and for whom feminism seeks political and cultural representation has long been questioned. Black feminists like bell hooks and Audrey Lorde have examined exclusions and erasures through which the category of ‘woman’ is produced. Detailing the constitutive role of race in the formulation of femininity, hooks (1981) notes that white women in America were constituted as ‘women’ through the exclusion of black women from femininity. The construction of Anglo-Saxon women in America as innocent, pure, domestic goddesses was predicated on the contrasting construction of black women as physically strong, sexually licentious, and therefore more masculine and undeserving of recognition or protection as women. Charting the contours of fin de siècle discussions around gender, Gail Bederman (1995) has argued that the North American masculinity was fabricated by excluding black men and casting them as less than human. These constructions of black masculinity and black femininity worked in a complementary fashion to indicate reduced sexual/gender differences between them. These constructions of black masculinity and femininity fed into then current theories of race and civilisation as highly developed sexual differences were seen as a characteristic of more *civilised* races (Bederman, 1995). Such sociobiological beliefs also underpinned the formation of British masculinity, which was constructed in contradistinction to the devalued masculinities of the colonised subjects.

Building on these conceptions of the inextricability of race and gender, and in-line with the observations made by researchers like Cahn (1995), Heggie (2010) and Henne (2014), I argue

that the notions of appropriate embodiment of athletic femininity were formed at the intersection of gender, race, and class. Historically, anxieties surrounding potential ‘sex frauds’ in women’s sport was closely linked to racial anxieties: initial concerns were triggered by ‘muscular’ female athletes from Nazi Germany and later gender tests at the Olympic games were officially instituted mostly to allay suspicions that female athletes from the USSR might in fact be men masquerading as women to win athletic competitions. Over the years, the target of suspicion has shifted from Eastern European athletes to women of colour from Asia and Africa. While such targeting has been criticised as racist, various ‘scientific’ explanations have also been forwarded to account for the higher prevalence of intersex condition in African countries. Such explanations blame the inadequacies in healthcare due to which ‘problematic’ instances of gender ambiguity are not rectified early to blaming the overuse of certain insecticides that disrupt endocrinal functioning (Graham, 2016). More culturally based explanations point to the prevalence of “consanguinity”; the non-scientific name is ‘inbreeding’” (Harper qtd in Broadbent, 2018a). These explanations paint Africa as a place with limited access to modern amenities such as good health care and one where cultural practices long eschewed in the West continue to this day. Such suspicions about increased instances of intersex variations in Africa echoes racist conceptions of increased sexual differentiation being a characteristic of the ‘higher’, more evolved races while such differentiation is seen to a lesser degree in the ‘primitive’ races (Bederman, 1995; Magubane, 2014).

## 2.7. Sport, Gender, and Fair Play

The conception of contemporary forms of exercise of power as multi-faceted and functioning through the complex interplay of constraints and incitements to action provides a nuanced framework to study the regulation of athletes by sports' governing bodies. Sports' governing bodies function by positing sport as an exceptional field – a separate level of reality – to be governed in accordance with its own set of criteria, a key aspect of which is ensuring “fairness/fair competition”, i.e., ensuring that athletes compete on a (supposedly) level playing field. However, sports' governing bodies do not merely intervene in this field, but constitute it as a governable field. Within this field, fairness is not only *the* condition of possibility for sporting contests, but it is also the key moral value embedded in sport. The separation between ‘male’ and ‘female’ athletes is presented as essential to ensuring fairness. Working with the understanding that current conceptions of fairness also have a traceable history marked by debates and varying opinions surrounding what constitutes fairness in the context of sport can challenge its naturalisation and its centrality in the governance and understanding of sport.

Further, current forms of sporting practices are naturalised by presenting an unbroken history of sport that traces its roots to the ancient Greek games. However, modern sport presents a radical break from the ancient sporting tradition both in its formal and institutional structure and its cultural import (Guttmann, 1978). Historically, the emergence and institutionalisation of modern sport in the mid-to-late 19th century can be situated within the broader context of biopolitical concern for health, the linking of economic strength of the nation to the health of its population and consequent intensification of exercise of power over the bodies of subjects. It is in this context that regular physical training became an integral aspect of the schooling system beginning in the mid-1800s, though the actual content of the training varied based on

the class location and gender of the students (Hargreaves, 1994; Cahn, 2015; Lenskyj 1986).

The movement to revive the Olympics was part of this broader pedagogic project aimed at ensuring good health, building mental fortitude and ‘character’ through physical training. It was also explicitly concerned with promoting a Eurocentric masculinity, inflected by aristocratic ideals of manliness. The institutionalisation of the Olympic Games can be situated within the struggle to define the ideals of masculinity in the context of changing socio-economic conditions in Europe and North America in the mid-to-late 1800s.

Recognising the Olympic project as, at least in part, an attempt to cultivate and valorise a particular version of masculinity in contradistinction to femininity, helps to explain the persistent othering of athletes who do not fit these gendered ideals, even though the current official Olympic Charter states that the IOC is committed to achieving gender equality (IOC, 2019).

Dominant representations of sporting excellence highlight individual hard work and grit, presenting success as the result of perseverance and ‘natural’ abilities rather than as the culmination of intense training and inculcation in a culturally coded activity. This association between athleticism and ‘natural’ ability, which is sustained through representation of athletic activity, feeds into the cultural assumptions about ‘natural’ athleticism of men. The “advantage thesis” holds that any athletic contest between men and women would be meaningless since the outcome would be effectively predetermined in favour of men, owing to the insurmountable advantages they hold over women on account of their physical superiority (Cavanagh & Sykes, 2006). A circular relationship is constituted between masculinity and competence, such that men are presumed to be better athletes simply on account of being men (Henne, 2014). Conversely, the femininity of women who perform exceptionally well is rendered suspect (Cole, 2000). However, athletic performance is not a

display of natural abilities or prowess, but in high-performance sport, skill is materialised through intense training and disciplinary inculcation, which takes on the appearance of 'natural' ability over time (Shogan, 1999). What is considered a masculine or feminine way of playing a sport does not follow from some supposed natural difference but is produced through training and the rules of the sport which place different constraints on the possible range of actions.

Even when women's participation in sport has been normalised over the years, several sports require women to play by a different set of rules as compared to the men. For instance, in present-day ice hockey, women are not allowed to make a direct body check, which reduces physical contact in the sport and makes the game gentler in comparison to the men's game (Theberge, 1997). Even in the vault event in gymnastics, women are given a shorter distance between the springboard and the vault which limits their movement through space (Kane, 1995). These differences in the rules are generally presented as a way to accommodate women's unique needs stemming from physical limitations such as lack of strength or endurance, or temperamental limitations such as lack of aggression and competitiveness. These gendered ways of playing the sport, which encode masculine and feminine ways of using the body in space, are produced over time through regulations and sustained training, but once consolidated these differences seem to merely reflect 'natural' gender differences (Cahn, 2015; Shogan, 1999; Young, 1980).

Protectionist policies that regulate athletes' participation in women's category share a mutually constitutive relationship with the construction of women as inferior athletes in comparison to men. While these policies disproportionately target athletes who do not fit the norms of femininity, they still enable and normalise the medicalised surveillance of all female

athletes. Policies such as the Hyperandrogenism Regulations and DSD Regulations do not merely respond to the challenge posed by intersex\* female athletes, but they produce certain athletes as abnormal subjects for not fitting into the available gender categories, the boundaries of which are defined by biomedical norms. This discursive construction of women with hyperandrogenism as threats to fairness in sport is not unilateral or totalising but is met with resistance by athletes claim the right to participate in sport in a category that aligns with their gender identity, without having to fundamentally alter their bodies through medical procedures that can have significant adverse health effects in the long run.

Dutee Chand and Caster Semenya filed appeals in the Court of Arbitration for Sport (CAS) challenging the legality of Hyperandrogenism Regulations and the DSD Regulations respectively. In analysing the court proceedings in these two cases, I draw on the conceptualization of law and legal apparatuses as intricately entangled disciplinary power and mechanisms of governance. This provides a comprehensive framework to examine the role of the legal arbitrator – the Court of Arbitration for Sport – in the construction and regulation of ‘hyperandrogenic’ female athletes. Building on Foucault’s concept of Power/Knowledge nexus, Golder and Fitzpatrick (2009) have argued that law is not superseded by, or merely instrumentally subordinated to disciplinary power; rather it exists in a more dynamic, mutually constitutive interrelationship with the mechanisms of disciplinary and governmental regulation.

Legal mechanisms address themselves only to the perceived abuses or excesses of power at the extremes while withdrawing from a supervisory role in other instances. This creates a perception of the law as a check against abuses of power. However, by its withdrawal from supervision, law constitutes a domain in which the disciplinary ordering of the subjects in the

social space takes on the appearance of the natural or “true order of things”, thereby erasing “the element of domination and the techniques of domination involved in discipline” (Golder & Fitzpatrick, 2009, p.66–68). The disciplinary power to “adjudicate on questions of normality and social cohesion” (p. 64) rests on knowledge claims about the normal subject which is underwritten by the human sciences. However, the human sciences are immanent to the social field and cannot claim a transcendent position in relation to the society that they produce knowledge about. Therefore, its “epistemological project to know the essence of the individual and society is necessarily rendered incomplete”, even though the faith in the possibility of uncovering more, and more accurate truths through these sciences remains strong (Golder & Fitzpatrick, 2009, p. 63). This incompleteness at the heart of the disciplinary power/knowledge necessitates a constitutive recourse to law’s power to adjudicate on truths for its coherence. Further, disciplinary power is also reliant upon law’s power to punish in order to deal with instances of stubborn recalcitrance and failures of self-subjection which are an inherent, inescapable component of the operation of the disciplines. In this reckoning, law is not only fixed but also has anticipatory potential evidenced in its capacity to respond to recalcitrance, stemming not only from the inherent failure of the disciplines to exhaustively incorporate life forces that escapes its machinations but also from acts of “voluntary inservitude, of reflexive indocility” (Golder & Fitzpatrick, 2009; Foucault, 1996, p.386).

This conception of the amalgamation of law and disciplines seems to envision power as expansive and totalising, where recalcitrance or resistance from those subjected to it only provokes “disciplinary power into an ever more attuned existence.” However, acts of recalcitrance through which subjects distance themselves from “existing modes of truth-based subjectification” (not without its costs), can reorganize the political field or the grid of

intelligibility, generating possibilities for different modes of thinking and becoming subjects (Golder & Fitzpatrick, 2009, p.68).

## **2.8. Challenging the Eligibility Regulations**

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This conception of the amalgamation of law and disciplines seems to envision power as expansive and totalising, where recalcitrance or resistance from those subjected to it only provokes “disciplinary power into an ever more attuned existence” (Golder & Fitzpatrick, 2009, p. 68). However, acts of recalcitrance through which subjects distance themselves from “existing modes of truth-based subjectification” (not without its costs), can reorganise the political field or the grid of intelligibility, generating possibilities for different modes of thinking and becoming subjects (Golder & Fitzpatrick, 2009, p. 68). Through the analysis of the court proceedings in *Dutee Chand v. AFI and IAAF*, and *Caster Semanya and ASA v. IAAF*, I will examine the interplay between the refinement of technologies of power and possibilities of ‘desubjugation’ generated by the resistance articulated by athletes.

The concept of subjectification (subjectivation) provides the language and conceptual framework to plot the complex, vexed relationship between power, authority and governance on the one hand and identity, self and personhood on the other (Dean, 2010, p. 24). It tells us that power does not merely seize pre-existing individuals and submit them to restrictions, rather “the individual is formed or ...formulated through his [sic] discursively constituted ‘identity’” (Butler, 1997, p. 84). This notion of the subject as formed at the intersection of power relationships challenges “its universality, its stability, its unity, its totality, its individuality, and its interiority [and] the uses to which constitutions of the subject and subjectivity have been put” (Stewart & Roy, 2014, p. 1876). However, this acknowledgement that the subject is formed by discourse does not amount to arguing that subjects are “caused” or exhaustively determined by the discourse (Butler, 1997, p. 84). Subjectification is neither a top-down imposition nor a univocal process as individuals are formed by multiple, intersecting discourses and power arrangements. In the tensions between these overlapping and conflicting disciplinary practices that constitute the subject, there is scope to challenge disciplinary impositions.

Individuals come to constitute themselves as subjects in interaction with – by appropriating and negotiating with the norms of subjectification, and this critical negotiation holds the potential to challenge and overturn extant power relations that organise the field (Foucault, 1982). Relations of power, especially in their governmental modality, are distinct from relations of force as they operate not through repression or domination but by enabling action albeit within a field where the possibilities for acting are constrained but not entirely determined (Foucault, 1982; Thompson, 2003). They “function through the structuration of subjectivity through various non-dominating techniques and apparatuses” to guide the action

of subjects who are fundamentally free (Hartmann, 2003, p. 7). In relation to this form of exercise of power which acts upon actions, resistance lies in a “creative traversing of the field of possible action” (Hartmann, 2003, p. 10) enabled by a critical examination to long-standing practices and institutions (Foucault, 1996).

In relation to contemporary sporting culture and institutions, non-binary athletes in their negotiation of the gendered norms of the institution are generating possibilities challenging and reconfiguring these norms. Challenging the imposition of the Eligibility Regulations, not only particular instances of their misapplication but as a general mechanism for constituting gendered subjects provides an opening for critically examining the foundations of the institutions of modern sport.

### Chapter 3. Methodology: Applying Foucauldian Discourse Analysis

Discourses, or the processes of meaning-making, are irreducible elements of social practice. As a method of studying society, discourse analysis is broadly concerned with configuring the “relations between discourse and other social elements (power, ideologies, institutions, social identities etc.)” (Fairclough, 2003, p. 178). Divergent strands of discourse analysis configure the relationship between discursive and non-discursive or material aspects of social reality differently, even as they acknowledge that discourse is traversed by power and are underpinned by a common belief in the interrelatedness of representation and social action (Jørgensen & Phillips, 2002). In this research, I will draw on the Foucauldian conceptualisation of discourse where power and knowledge are seen as forming an indissociable complex such that “[t]he exercise of power perpetually creates knowledge and, conversely, knowledge constantly induces effects of power” (Foucault, 1980, pp. 51–52). Further, “[t]he knowledge which a discourse produces constitutes a kind of power, exercised over those who are ‘known’” (Hall, 1992/2018, p. 294). Drawing on this understanding, I examine how medical knowledge is used to constitute the hyperandrogenic female athlete, which in turn enables the production of further knowledge about these athletes which is used to control them through procedures of medical normalisation.

Centring discourse in his analysis of power relations and politics, Foucault (1981) notes that discourse is “the thing for which and by which there is struggle” (pp. 52–53). “In every society the production of discourse is at once controlled, selected, organised and redistributed by a certain number of procedures whose role is to ward off its powers and dangers, to gain mastery over its chance events, to evade its ponderous, formidable materiality” (1981, p. 52). The focus of discourse analysis, then, is to examine the production and control of discourse

and the material effects produced by these discourses, i.e., “technologies of subjectivity, the aims, methods, targets, techniques and criteria in play” when individuals are judged and evaluated and in turn judge and evaluate themselves (Miller & Rose, 2008, p. 7).

In contrast to textual and narrative analyses, the focus of Foucauldian discourse analysis (FDA) is not merely on linguistic elements of the text – the grammatical and lexical choices – or narrative patterns. Close reading is eschewed in this approach, predicated on the belief that texts and their meanings are transparent to the readers, if appropriately contextualised.

Further, the notion of an originary experience whose basis is prior to systems of signification is eschewed to focus instead on discourse as event – as social actions to be analysed (Hook, 2007, p. 116). While discourse is not reducible to language, acknowledging its materiality entails understanding language as not merely a depiction or representation of reality but an intellectual technology “that render aspects of existence amenable to inscription and [governmental] calculation” (Miller & Rose, 2008, p. 21). Paying attention to the use of language in FDA goes beyond the analysis of rhetoric and meaning and focuses on tracing the mutual constitution of language and politics (Miller & Rose, 2008).

Discourses both “constrain and enable writing, speaking, thinking ... discursive practices work in both inhibiting and productive ways, implying a play of prescriptions that designate both exclusions and choices” (Hook, 2001, p. 523). In *The Archaeology of Knowledge* (1969/1972) and *The Order of Things* (1966/1971), Foucault explicitly articulates some of the constraints and injunctions that enable the production of discourse. While some constraints are internal to the discourse, others are external and related to the material conditions that restrict or enable the production of knowledge. The privileging of canonical texts relative to commentaries within a field of knowledge, and the use of the author as a principle for

unifying utterances and making them cohere operate as internal constraints of the discourse. Decentring the individual speaker as the generator of the discourse and the concomitant conceptions of originality, intention and personal biases enables a critical analysis of the operation of these constraints. Inverting the conventional author–text relationship, Foucault suggests that “[i]nstead of asking about what is revealed by authors in their texts ... we ask instead about what possible subject-positions are made possible within such texts” (Hook, 2007, p. 108). In addition to the constraints imposed by the author function, which is employed differently in scientific and literary discourses, disciplinary organisation of knowledge also functions as another internal constraint. Particular disciplines operate with their own theoretical horizons and rules for the kinds of propositions and objects that can form a part of the discipline.

Strong prohibitions against speech about certain ‘taboo’ topics – such as sexuality or politics – along with systematic divisions between rationality and the speech of the ‘mad’, and between true and false statements are external constraints placed on the discourse.

Conventional historical accounts see the production of knowledge or ‘true statements’ as a linear process of progress through which false beliefs are successively weeded out to arrive at the truth (Foucault, 1981; Hook, 2007). Rather, acknowledging the breaks and paradigmatic shifts in our conception of objects indicates that what we accept as the ‘truth’ is produced through discursive practices. This view of truth as a ‘product of discourse’ is not a relativist approach which treats divergent claims to truth as equivalent; rather, it expresses the understanding that there are underlying discursive rules or a “carefully delineated set of possibility under which statements come to be meaningful and true” (Hook, 2001, p. 523). The aim of discourse analysis, then, is not to unearth hidden meanings and connotations in texts but to uncover these underlying, relatively stable truth conditions or epistemological

rules that organise a discursive formation within a particular historical context and invest particular statements with truth-value (Jørgensen & Phillips, 2002, p. 13; Hook, 2007, p. 105).

In addition to internal and external constraints, there are also “determining conditions of application” of the discourse which encompass the appropriate rituals of speaking in particular institutional settings, the formation of ‘societies of discourse’ which regulate its circulation, usually within a closed space. There are also doctrines associated with specific discourse that speakers are expected to pledge allegiance to and instances of social appropriations of the discourse, usually by institutional systems (Foucault, 1981). While Foucault’s earlier works focused on uncovering the discursive rules underpinning the production of knowledge, his later works engage more closely with the production and control of subjectivities through the deployment of discursive knowledge. *The History of Sexuality* examines how individuals are constituted as particular kinds of sexual subjects by the discourse of sexuality while *Discipline and Punish* traces the shifts in the discourses connected with criminality and the concomitant changes in the practices of punishment which led to the constitution of the criminal as a reformable subject. It is this conception of discourse as “institutionalized patterns of knowledge that govern the formation of subjectivity” (Arribas-Ayllon & Walkerdine, 2008, p. 110) that will inform my study of the constitution of the female athlete with hyperandrogenism as a problematic subject within the context of modern high-performance sport.

Foucault’s work orientates the researcher to studying discourse as not merely textual but in reference to material conditions that make its production and circulation possible while also accounting for its material effects. A separate “order of the subject” cannot be presumed and

the task of analysis is to uncover the power relations that work to establish this subject and particular capacities of the subject as possible objects of intervention (Hook, 2007, p. 73). Foucault himself did not rigorously systematise his methodology and resisted distilling his analytical approach into a set of methods that could readily be applied to the study of different discursive formations. Instead, he intended the concepts and analytical process that he developed to function as a toolbox that other scholars could borrow particular tools from to suit the needs of their own studies. Accordingly, researchers studying different discursive formations have synthesised elements of his approach to discourse analysis in order to develop methodological guidelines most suitable to analyse the social functions and implications of the texts they study (Bacchi, 2014, pp. 1–43; Arribas-Ayllon & Walkerdine, 2008; Markula & Pringle, 2006; Hook, 2001; 2007). While the relative emphasis placed on uncovering the epistemic rules underpinning particular discursive practices versus studying the application of discursive knowledge to produce and control subjectivities may vary, these approaches are still guided by a sceptical orientation towards the ‘truth’ and the methodological imperative to replace the “will to truth” by “will to power”.

Within the context of cultural and sociological studies of sport, researchers have utilised the conception of power as productive to examine the production of high-performance athletes through corporeal training techniques and surveillance within institutionalised settings (Shogan, 1999). Liao and Markula (2009) have combined methods drawn from Feminist Critical Discourse analysis with a Foucauldian conception of subjectivity in their analysis of advertising campaigns for sporting goods and apparel. Their study examines the construction of feminine subjectivity in these ads, situating it within the broader context of postfeminist discourse. Their attentiveness to the subtleties of linguistic and iconic representations, combined with the understanding of subjectivities as formed through discursive practices



exposes the tensions between postfeminist claims about gender equality that are mobilised in these ads while they simultaneously limit the roles that women can play. Markula and Pringle (2006) employ FDA in their genealogical analysis of the emergence of 'fitness' as a (quasi-) scientific concept. Through a comprehensive review of mid-century men's and women's magazines, they trace the emergence of the nebulous idea of fitness, which is shot through with cultural expectations of attractiveness. Over time, this notion of 'fitness' gained legitimacy through its association with science-adjacent disciplines of knowledge and has subsequently been used by medical practitioners and fitness trainers to develop norms for fitness and consequently normalise subjects who are not 'fit' enough. In this instructive study, Markula and Pringle also present a framework for using FDA to produce theoretically rich studies of the socio-cultural impact and political import of sport and physical culture. Borrowing methodological precepts from these studies, I outline the specific methods that I employ in my analysis of hyperandrogenism regulations in sport.

### **3.1. Selection of a Corpus for Analysis**

As the focus of FDA is to uncover the rules of discourse that operate beyond the level of individual texts, it involves studying a discursive formation. A discursive formation comprises a corpus of texts that may cut across conventional disciplinary boundaries, and functions as a coherent system of representation comprising inter-related sets of statements that have a common object and a common way of apprehending the object. The starting point for FDA, then, is to delimit the discursive formation within which enunciations about the object or the construction of the subject position take place (Markula & Pringle, 2006; Arribas-Ayllon & Walkerdine, 2008, pp. 114–115). I consider policy statements and press releases, media coverage of athletes, and court documents pertaining to cases filed by athletes against the regulations as constituting the discursive formation in which statements about

hyperandrogenic female athletes are made. The following documents will be analysed closely as key texts that form a part of this discursive formation:

- i. **Policy documents:** The three iterations of the Hyperandrogenism Regulations [2006, 2011, and the 2018 versions] and the accompanying scientific consensus statements
- ii. **Popular representation:** Media coverage of the three athletes pertaining to their significant athletic achievements, news of the athletes being subjected to medical tests, and significant events in the aftermath of these tests. For Caster Semenya and Dutee Chand, news reports regarding their case in CAS will also be analysed. Press releases issued by the IOC and IAAF regarding the hyperandrogenism regulations will also be studied as part of the analysis of media coverage
- iii. **Legal documents:** The court documents pertaining to athletes' challenges lodged with the CAS

While these texts provide a useful starting point, the analysis will oscillate between studying particular texts and examining the institutional conditions that have enabled their production and dissemination, as well as the material effects engendered by these texts. The focus of analysis will be on examining the construction of subject positions and the procedures of normalisation enabled by these texts and the knowledge that underwrites them.

### **3.2. Situating the Corpus**

As a mode of analysis that is concerned with diagnosing the present, FDA is attentive to history, to trace temporal shifts and variations in the ways in which we understand objects and constitute problems to be solved. The analytic focus is on identifying the emergence of particular concepts or objects and the conditions of possibility of their emergence. To this end, archaeological analysis attempts to grasp the rules of utterance at play and is more

attuned to studying the internal dynamics of the discourse. Genealogical analysis traces the historical shifts in these rules of utterance and is more concerned with configuring the relationship among discourse and social institutions and practices (Hook, 2007, p. 174; Liao & Markula, 2009).

As a method of historical analysis, genealogical inquiry eschews narratives of linear progress and teleological assumptions to reveal the vulnerabilities of our seemingly timeless institutions. By pointing to contingent nature of contemporary institutions and knowledge formations, it disrupts “the certainties that govern contemporary ways of thinking” (Cole, Giardina & Andrews, 2004) and attempts to reveal the “bases of power that underpin, motivate and benefit from the truth claims of the discourse in question” (Hook, 2001, p. 525).

In his studies of the application of genealogy within the context of studies of governmentality and the State, Walters (2012) identifies three styles of doing genealogical research:

1. Analysis that focuses on tracing the lines of descent of concepts and/or institutions
2. Accounts that challenge conventional or dominant histories by re-serializing events differently to present a counter-memory
3. Attempts to retrieve forgotten/subjugated knowledge (p.110–140).

While these are not clearly separable styles of analysis, such a schematisation highlights the differential emphasis placed on various aspects of historical analysis within genealogical studies. I draw on some of these elements of genealogical analysis to denaturalise the currently dominant conceptions of sport as comparative test which necessitates that sports governing bodies ensure ‘fair play’ or competition between athletes ‘under conditions of equality’. To examine the construction of accepted notions of ‘fairness’ and ‘fair play’ within

modern sports culture, I will examine The Olympic Charter, the Olympic Code of Ethics, the IAAF constitution, the IAAF competition rules, documents from Fair Play International and World Anti-Doping Agency's vision documents.

### ***3.2.1. History of Modern Olympics***

Attractively packaged for the media and thoroughly commodified for the consumption of the legions of devout fans, the Olympic Games are paradigmatic of modern high-performance sport which constitute a field of tightly regulated, highly institutionalised and codified bodily practice. The modern Olympic Games represents one of the earliest successful attempts to institutionalise competitive sport by establishing extensive bureaucratic apparatus and defining the meaning, values and social function of sport. The IOC prevailed over other sporting movements – such as Workers' sports movements and Fe'de'ration Sportive Feminine Internationale (FSFI) – with contrasting values and divergent ways of understanding the relationship between sport and society. Workers' Sport festivals, which were popular in the 1920s and 1930's, sought to challenge the classist underpinnings and nationalist fervour of Olympic sport by foregrounding professional working-class athletes and encouraging team sports and internationalism in the spirit of solidarity while de-emphasising competition (Young & Wamsley, 2005; Wheeler, 1978). Fe'de'ration Sportive Feminine Internationale (FSFI) aimed to extend competitive sporting opportunities to women, challenging the masculinist ethos of Olympic sports (Young & Wamsley, 2005; Wheeler, 1978; Leigh & Bonin, 1977; Krieger, Krech, & Pieper, 2020). In contrast to the Olympic movement that mythologised the formal equality of all participating athletes, these sporting movements acknowledged the social location of the athletes and the impact that they had on sporting opportunities available to them.

In defining a global, transcultural and a-historical essence of sport as physical contests under conditions of equality and its embedded moral value as the recognition of the importance of “fair play”, the Olympic Games provided a repertory of shared cultural meanings associated with sport that other national and international sporting federations drew on. The IOC also served as an exemplary bureaucratic model for other sporting federations to emulate, and some of these sports’ governing bodies – such as the International Amateur Athletics Federation/World Athletics, and International Federation of Association Football (FIFA) – developed as direct offshoots of the Olympic movement (Young & Wamsley, 2005; Schultz, 2000). Given this history of close entanglement with the development of professional and amateur sport, the Olympic movement provides a field within which to study the deeply entrenched values as well as emerging trends in modern sport.

The International Olympic Committee (IOC) has been successful in universalising and naturalising its sporting practice and its conception of sport in contradistinction to other sporting traditions (Kidd, 2013a; Kidd, 2013b; Young & Wamsley, 2005). This conception of sport as divorced from socio-political concerns is consolidated by effacing the specific socio-historical, political and economic conjuncture of 19<sup>th</sup> Century Europe that enabled the institutionalisation of Olympic Games as an embodied cultural practice focused on disciplining and strengthening the body as a means of building integrity and moral rectitude in men. Recovering the socio-cultural influences and highlighting the overt concerns with shoring up euro-centric aristocratic masculinity which shaped the movement helps to better explain the ongoing cultural coding of sport as a masculine activity, even as most formal restrictions against women’s participation in sport have been lifted.

Situating the institutionalisation of modern Olympics within the context of colonisation, cultural imperialism, and incipient globalising tendencies reflected in the popularity of various World's Fairs in late 1800s and early 1900s helps explain the transnational extension of the Olympic Games and its concomitant values as part of the exercise of colonial power. Accordingly, in Chapter 4, I challenge the official, dominant narrative of the modern Olympic Games which present it as a mere revival of the ancient Games by drawing on works of historical scholarship to sketch a thick context around the emergence of the modern Games. Informed by Foucault's genealogical approach, this historical segue seeks to destabilise the dominant and popular understanding of sport – which is reflected even in critical academic literature on sport – by presenting the contestations and challenges posed to the Olympic movement and its conception of sporting culture (Cole, 1993).

### ***3.2.2 History of Gender Testing Regulations***

The current problematisation of hyperandrogenic athletes functions within the epistemic framework of the dominant sex/gender discourse which imposes limits on the ways in which we think about sex/gender. To sketch this broader context, I will draw attention to shifts in the ways in which sex-differences have been conceptualised over time. The belief in 'sex' hormones as the key determiners of masculinity and femininity dates back to the search in early 1900s for an efficacious biological causal agent that could explain sex/gender differences between men and women. Examining literature critical of this effort to produce scientific knowledge about the 'sexed' body and tracing the history of research into sex hormones can help demythologise testosterone as the key determiner of masculinity, and by extension of sporting performance (Oudshoorn, 1994; Karkazis & Jordan-Young, 2019). Having examined the broader contours of the sex/gender discourse, I locate the current

hyperandrogenism regulations within the long history of problematisation of women's participation in sport.

While there were strong informal pressures on female athletes to present themselves in conventionally feminine ways, gender-testing regulations, first adopted in the 1950s and 1960s present codified, formal, and legally enforced/enforceable regulations which made explicit these otherwise implicit assumptions about femininity and expectations of appropriate embodiment of gender placed on female athletes (Heggie, 2010). Tracking shifts in criteria used to determine femininity over the years and the concomitant normalising procedures used to regulate intersex\* female athletes helps to explore the interplay of power and knowledge in the regulation of female athletes.

### **3.3. Analysing Policy Documents**

Policy documents present explicit articulations of the 'problem' from the perspective of the institution attempting to resolve this problem. However, the exercise of power inherent in policies is not reducible to an adversarial, dichotomous relationship between the powerful and the powerless or exhaustively understood by unravelling the intentions and biases of the powerful institutions that develop and enforce these policies. Policies do not merely solve pre-existing problems, but they construct the very problems that require solutions. The key focus of discourse analysis is to throw "into relief practices and objects by attending to how certain problematizations are formed" (Arribas-Ayllon & Walkerdine, 2008, p. 116). Policies also constitute particular types of subjectivity in relation to the problem, which enable processes of normalisation directed at those constituted as abnormal (Bacchi, 2014). Carol Bacchi's "What's the problem represented to be" presents a series of questions to guide a Foucauldian analysis of policies. Adopting Bacchi's framework, my analysis will examine

the conceptual logics and rationalities that underpin the problematisation of female athletes with hyperandrogenism and the dividing practices employed to separate these athletes from ‘normal’ female athletes. The historical analysis of gender testing regulations, since their inception in the 1950s, presented in the preceding chapter, engages with the question of how this representation of the problem has gained dominance (Bacchi, 2014, p. 48). Building on this, my analysis of the three iterations of the policy will be attentive to subtle shifts in the ways in which athletes with hyperandrogenism are represented in these policies while also highlighting more enduring logics and rationalities beneath these changes. I also study the positioning of medical professionals as privileged speakers whose statements are accorded truth-value, relative to the athletes’ own statements about their gender.

Considering the continuing dominance of a particular representation of the ‘problem’ involves analysing how it is “disseminated and defended” in the wider society (Bacchi, 2014, p. 48). So, the analysis of the media coverage of intersex\* female athletes is interlinked to the policy analysis. By focusing on identifying the categorisation and dividing practices that operate in mediated representations of Santhi Soundarajan, Caster Semenya and Dutee Chand, I will examine how they are constructed as ‘abnormal’ and problematic. In addition to studying the delimitation of the problem or the discursive effects of the policy, examining the enforcement of these Regulations in the case of the three athletes will highlight the subjectification effects and lived effects of the policy. The construction of intersex\* female athletes as abnormal and as threats to women’s sports justifies the subsequent medical interventions enforced on the athletes to normalise them.

My research will explore the connections between the representation of the ‘problem’ in the policy to the production of hyperandrogenic or DSD female athletes as abnormal and



threatening subjects and the implications that this process of subjectification has on the athletes' lived experiences. Highlighting the silences in the dominant framing of the problem provides an opening for reimagining the problem or developing different problematisations. This effectively shifts the focus from looking at policies as attempts at solving problems to articulating the "right to problems" (Deleuze, qtd in Bacchi, 2014, p. 46). To this end, the analysis of the policy documents will explore these silences or what is left unproblematised in this representation of the problem.

In examining the discursive effects of the policies – the limits they impose on how the problem can be thought of – I will combine FDA with elements of Critical Discourse Analysis (CDA) for a closer study of the linguistic elements of the text (Pechtelidis & Stamou, 2017). I argue that this provides a richer framework for understanding the implication of syntactical and lexical choices in the operation of power. While Critical Discourse Analysis has functioned as a relatively loose term encompassing a variety of methods applied to the study of textual or semiotic element of social practices, Norman Fairclough has developed one of the most systematic theoretical approaches and methodological tools for the study of discourses. Fairclough's approach to CDA operates within a critical-realist framework which maintains a distinction between ideologically motivated (mis-)representations of the world that serve the interests of the oppressors, and knowledge which is innocent of power (Fairclough, 2003; 2013). Given this theoretical orientation, CDA argues for a distinction between the oppressors and the oppressed and sees discourses as shaped by the ideology of the oppressors, designed to maintain the hegemony of the current ruling class – those in possession of power (Fairclough, 2013; Jørgensen & Phillips, 2002). Maintaining a sharp distinction between reality and representation, this

approach to the sociological study of texts is more attentive to the formal elements of texts while also identifying the circuits of power that run through them.

Drawing on sociolinguistics, this strand of CDA has developed a repertoire of tools for rigorous and systematic rhetorical analyses of texts. However, such keen formal analysis is not an end in itself but a means of uncovering the ways in which power and dominance are enacted in and through discourse, thereby maintaining the hegemony of the oppressors over the oppressed. Oscillating between studying the formal linguistic elements of a particular text and the larger social effects of these texts, CDA aims to ground claims about the causal efficacy of discourses in strong textual evidence (Fairclough, 2013; Pechtelidis & Stamou, 2017). This theoretical orientation of CDA also commits one to politics of emancipation, grounded in the agency of the subject. However, this textually oriented understanding of discourse, the dichotomy between the powerful and the powerless and the distinction between the ‘truth’ and ideologically oriented misrepresentations of the world is at variance with the Foucauldian conception of discourse as productive of ‘truth effects’ and subjectivities.

Given fundamental differences in the ontological and epistemological underpinnings of these two approaches to discourse analysis, it is argued that they are incompatible with each other (Liao & Markula, 2009, pp.30-48). Therefore, any combination of elements from these two approaches requires an acknowledgement of these differences and a multi-perspectival approach to the combination of research methodologies (Jørgensen & Phillips, 2002). In their research, Pechtelidis, and Stamou (2017) synthesise elements from FDA and CDA to trace the construction of the “competent child” in the Greek pre-school curricula. Similar to their approach, I rely on elements of linguistic analysis developed by CDA while retaining a

Foucauldian understanding of power as a network of relations rather than a possession and the conception of power and knowledge as closely intertwined in discursive practices.

I list below tools of linguistic analysis that I have employed in my analysis of the policy documents:

**Active and Passive Voice:** Active voice clearly enunciates the relationship between the noun (subject) and verb (action), whereas employing passive voice can effectively conceal the agent(s) behind an act. My reading of the policy documents will be alert to the ways in which active and passive voice are used strategically to impact our perception of social processes. This is closely linked to nominalisation, or the conversion of verbs or adjectives into nouns (Fairclough, 2003).

**Nominalisation:** Using nouns rather than verbs to refer to ongoing processes represents them as fixed entities or objects in the world rather than a series of actions or processes. Identifying instances of such strategic use of nouns will enable a clearer critique of the ways in which abstract entities are personified and imbued with agency, thereby making contingent events seem necessary and inevitable (Fairclough, 2003, pp. 13–15). This attempt to destabilise existing ontologies is in-line with the methodological imperative in FDA to remain sceptical of accepted ways of apprehending the object of discourse and self-evident truths.

**Collocation:** In texts, chains of association are formed by using certain words in close conjunction. Identifying these associative chains linked to ‘gender’ helps to better identify the taken-for-granted notions about gender that pervade the policies (Fairclough, 2003, pp. 33–38).

**Claims to consensus:** Beyond linguistic analysis, CDA also focuses on the importance and authority accorded to certain voices in texts while others are relatively silenced or side-lined. This focus on speakers is combined with Bakhtin's conception of dialogicality to examine how texts either amplify or minimise the discordance between different speakers (Fairclough, 2003, pp. 39–61). In relation to this, texts are scrutinised for their presentation of an assumed consensus between social groups “which suppresses actual difference” (Fairclough, 2003, p. 43). In analysing policy documents, I have examined the claims made regarding broad-based consensus within the medical community regarding hyperandrogenism and DSD variations in women. However, this attentiveness to claims of consensus is not an attempt to identify the actual, existing differences in opinions which are suppressed in the texts. Instead, I analyse how such claims to consensus are mobilised used to bolster certain truth claims about ‘hyperandrogenism’ and DSD variations in women.

### **3.4. Studying Media's Construction of Intersex\* Female Athletes**

FDA of news media coverage can help examine the ways in which accepted medical ‘truths’ about sex/gender and athletic abilities structure popular discussions about Eligibility Regulations in sport. As embodied social practice, sport functions as a fundamental discourse about the legitimate use of the body in society and is pivotal in defining the relationship between the self and the body. As a culturally meaningful activity, sport holds narrative potential which is realised in and through representations of the performing body (Geertz, 1972; Alter, 2004; Bourdieu, 1993). Media functions as a key site within which narratives and cultural meanings associated with the gendered athletic body are circulated. It also forms a key site for the negotiation of these meanings of athletic embodiment between athletes, sports’ governing bodies and the sports fans. Methodical analysis of mediated representations

of the three athletes – Santhi Soundarajan, Dutee Chand and Caster Semenya – is indispensable to understanding how they are cast as inappropriately feminine and problematised as threats to women’s sport.

Feminist sport scholars have examined the representation of female athletes in the news and sports media over a period of time to uncover recurring patterns and problematic stereotypes (Cahn, 2015; Theberge, 1991). Research into media representation of athletes has shown that in order to gain legitimacy as women, sportswomen had to fit into one of the two narrative moulds available to them: aggressive and competitive on the field but demure and feminine off it, or tomboys who (will) eventually mature into conventionally feminine women (Cahn, 2015). Some athletes were force-fit into these moulds while those who did not fit these narratives were either effaced or vilified (Cahn, 2015; Leath & Lumpkin, 1992). Studies have also found that while male athletes are more often pictured playing their sport, women are most often shown off-court in fashionable clothes or in posed shots (Leath & Lumpkin, 1992; Cooky, Messner & Musto, 2010). In addition to coverage focusing on their sporting abilities, comments are also made about female athletes’ appearance and sartorial choices. Researchers have noted that the visual portrayal of female athletes in the media can influence public perceptions of their athletic capabilities (Bissel & Duke, 2007).

In their atypical embodiment of femininity, Soundarajan, Semenya and Chand resist (hetero)sexual commodification and confound the available media narratives designed to recoup the femininity of sportswomen. Chand and Semenya, having publicised their lesbian relationships, also challenge the expectations of having to present themselves as heterosexually attractive for the consumption of a largely male audience (Miller, 2001). Drawing on the narrative patterns identified in these studies, I identify the ways in which

hyperandrogenic athletes are constructed as problematic in contradistinction to normal female athletes. I will also examine the ways in which news reports draw on dominant conceptions about gender and about fairness in sport to construct these athletes as problematic and in need of medical intervention. It will also explore the ways in which expertise pertaining to sex/gender is constructed within the media and the positioning of medical professionals as experts or ‘warranted speakers’ of the discourse.

The following table provides details of the news articles selected for closer analysis.

**Table 1.** *News coverage tracking dates for Santhi Soundarajan*

<b>Dates</b>	<b>Events</b>	<b>Details</b>
28 November 2006 to 17 December 2006	2006 Doha Asian Games	Shanti Soundarajan won a silver medal in the 800 m event
18 December 2006 to 27 December 2006	Reports of Shanti Soundarajan’s gender test appeared in the media	

**Table 2.** *Media outlets tracked for coverage on Santhi Soundarajan*

<b>Top English Newspapers in India</b>	<b>Top English Newspapers in USA</b>	<b>Top English Newspapers in the UK</b>	<b>Top English Newspapers in Australia</b>	<b>Top English News Websites</b>
The Times of India	USA Today	Metro	Sydney Morning Herald	
The Hindu	Wall Street Journal	Sun	The Australian	BBC (UK)

**Table 3.** *News coverage tracking dates for Caster Semenya*

<b>Dates</b>	<b>Details</b>
18 August 2009 to 29 August 2009	Semenya won gold in the 800m run at the Berlin World Championships, following which she was asked to take a gender test
1 August 2016 to 31 August 2016	Rio Olympics, Caster Semenya won gold in the 800m with a new record
17 April 2018 to 28 April 2018	IAAF announces new rules on female Hyperandrogenism

**Table 4.** *Media outlets tracked for coverage on Caster Semenya*

<b>Top English Newspapers in SA</b>	<b>Top English Newspapers in USA</b>	<b>Top English Newspapers in the UK</b>	<b>Top English Newspapers in Australia</b>	<b>English News Website</b>
Cape Times	New York Times	The Telegraph	Sydney Morning Herald	BBC (UK)
The Star/Cape Argus	Washington Post	The Times	The Australian	

**Table 5.** *News coverage tracking dates for Dutee Chand*

<b>Dates</b>	<b>Events</b>	<b>Details</b>
1 April 2014 to 30 April 2014	Dutee Chand's gender test report was covered by the media	Chand was dropped from the Indian contingent for the Commonwealth Games and the Asian Games
1 July 2015 to 15 July 2015	Dutee Chand files her appeal in CAS	

**Table 6.** *Media outlets tracked for coverage on Dutee Chand*

<b>Top English Newspapers In India</b>	<b>Top English Newspapers in USA</b>	<b>Top English Newspapers in the UK</b>	<b>Top English Newspapers in Australia</b>	<b>English News Website</b>
The Times of India	New York Times	The Telegraph	Sydney Morning Herald	BBC (UK)
The Hindu	Washington Post	The Times	The Australian	

While the analysis of these articles will present a broad overview of the trends in mediated representations of these athletes, constraints of time, lack of linguistic familiarity and limited access to material from other geographical locations mean that this research only considers articles from top English language newspapers which are archived and accessible through the internet.



### 3.5. Examining Court Documents

While the exercise of discursive power tends towards a total mapping of the field, such a totalisation is aspirational and never fully realised (Miller & Rose, 2008). Resistance by those on whom power is exercised is an irreducible element of power relations (Foucault, 1976/1978, pp. 95–96). The appeals filed in CAS against the Hyperandrogenism Regulations by Dutee Chand and Caster Semenya shows attempts by these athletes to resist their construction as problematic, threatening subjects in need of normalisation. Analysing the court judgements from *Dutee Chand v. AFI and IAAF* (2014) and *Caster Semenya and ASA v. IAAF* (2018) will aid in understanding the IAAF's mobilisation of medical knowledge to construct these athletes as abnormal and in need of medical treatment.

When analysing the court documents, I will examine how the tension between medical norms and legal norms of individual rights, non-discrimination and expectations of getting informed consent from athletes for medical procedures plays out in these cases. Athletes' arguments against the enforcement of hyperandrogenism regulations rests on mobilising the discourse of individual rights – their right to express their gender identity and to participate in sport in accordance with this gender identity. These tensions between medical and legal norms will be framed within the understanding of the legal apparatus as enmeshed with the exercise of disciplinary power. This is in contrast to conceptions of the legal sphere as a realm of formal equality and a mechanism to impose limits on the unjust use of power (Golder & Fitzpatrick, 2009). Such a conception of the contemporary legal apparatus as thoroughly implicated in disciplinary mechanisms of power can help examine the practical limitations in enforcing human rights regulations, especially in the case of athletes who are governed by transnational sporting federations and committees (Golder, 2015).

## Chapter 4. Modern Competitive Sport: A History of the Present

As a pre-eminent cultural activity that focuses on rewarding physical prowess, sport is one of the most influential embodied practices through which the legitimate (gendered) human body is produced and contested (Bourdieu, 1993). Physical strength, competitiveness, and the capacity to use violence in a controlled manner are at the core of idealised quality characteristics of contemporary forms of hegemonic masculinity (Schippers, 2007, p. 94). As tests of physical competence, competitive sport provides a popular, culturally valued stage where these traits can be cultivated, displayed, and systemically rewarded (Connell & Messerschmidt, 2005; Messner, 1990; Kidd, 2013a). Male athletes are held up as paragons of strength and they hold immense symbolic and aspirational value in the popular imagination as icons of ideal(ised) masculinity.

“Sport symbolically conveys the notion that the natural, and by association the social or cultural constitutions of men and women are determined by their bodies’ respective biological, physiological and anatomical structures” (Beamish & Ritchie, 2006, p. 40). Such a naturalisation of sporting abilities and the association of sporting prowess with masculinity can be traced back to the discussions and concerns about masculinity that animated the modern Olympic project. This chapter provides a brief historical overview to situate the modern Olympic Games within the context of the emergence of modern formalised sporting practices. Such a contextualisation, I argue, helps to present contemporary understanding of sporting contests as attempts “to measure, compare, and rank competitors according to athletic performance” (Loland qtd in Gleaves & Lehrbach, 2016) as neither essential nor universal, but historically and culturally contingent.

#### **4.1. Olympics Games and Modern Competitive High-Performance Sport**

The emergence of modern institutionalised sport – characterised by secularism, equality, specialisation of roles, rationalisation, bureaucratic organisation, quantification, and record-keeping – coincides with the rise of industrial capitalism in 19th century Europe and North America (Guttman, 1978, p. 15–57). The modern Olympic Games were one of the first competitive sporting events to be institutionalised on a global scale; its predictable quadrennial cycle helped structure the landscape of modern competitive sport and its vision of sport as a morally edifying pursuit has had a lasting influence (A. Brown, 2005, pp. 31–41). The historical context and the convergence of economic, socio-cultural and political factors that led to the institutionalisation of modern Olympic Games are elided in the mythologising official narrative the Games which trace an unbroken line of descent from ancient Olympics to modern Games (Kidd, 2013b; IOC, 2021a).

Consistent strategic attempts are made to maintain this appearance of continuity through official insignia and symbolic acts, such as the lighting of the Olympic torch and the preceding relay, which are presented as a symbolic recreation of ancient Greek traditions (IOC, 2021a; 2022a). However, these Games are a specifically modern phenomena that emerged from attempts to build a pan-continental European identity by pulling together diverse cultures into unitary history stretching back in time to the Greek civilisation (Young & Wamsley, 2005). The Games were also developed during a period of socio-cultural flux in Europe and North America in the mid- to late-nineteenth century as the shift from pastoral life to urban life of perceived relative physical ease led to fears of enfeeblement or physical degeneration of men and consequent decline in the nation's strength (Bederman, 1995; Cahn, 2015; Hargreaves, 1994). In this context, the Olympic Games were explicitly conceived of as part of a broader pedagogic project aimed at defining masculine ideals and socialising (White

European) boys into men in accordance with these ideals (Beamish & Ritchie, 2006; Chatziefstathiou, 2008).

The Olympic Games were developed during a period of socio-cultural flux in Europe and North America in the mid- to late-nineteenth century, following large-scale industrialisation.

In the late 1800s, industrialisation in England and parts of Europe led to increasing urbanisation and a tilting of the political balance away from the aristocratic class.

Concurrently, the use of heavy machinery in manufacturing and the deskilling of several traditional jobs meant that physical strength no longer paid the same dividends in the labour market and consequently lost some of its associated prestige for the working-class. This relative devaluing of hard physical labour and increasing urbanisation gave rise to concerns about the weakening of men and consequent national decline. Similar concerns about degeneration were also voiced in North America at the time. Concurrently, the power held by the traditional elite – Anglo-Saxon men – was challenged by emerging working-class movements, anti-slavery movements and women’s rights activism (Cahn, 2015, p. 11).

Further, socio-economic changes between 1870 and 1910 resulted in less stable employment patterns, limited career progression and few opportunities for economic advancement or self-employment for middle-class Americans. Challenges caused by these socio-economic transformations were sought to be resolved not through institutional reform but by altered embodiment of masculinity. Hard work, fastidiousness, and self-restraint that were characteristic features of white protestant masculinity gave way to ideals that encouraged leisure, consumption, and instant gratification as there were no clear economic rewards for delaying gratification (Bederman, 1995, pp. 10–16).

In both Europe and North America, concerns resulting from structural shifts in socio-political and economic conditions were effectively condensed into problems of appropriate embodiment of gender. Consequently, the late 1800s and early 1900s was a period marked by conscious efforts, on either side of the Atlantic, to redefine the ideals of masculinity such that the link between “anatomy, [racial and gender] identity and authority” could be forged (Bederman, 1995, p. 8). This explicit problematisation of the ideals of manhood (and womanhood) – referred to as the fin-de-siecle masculinity crisis – has had a reciprocal, mutually constitutive relationship with the embodiment of gender in the sporting arena (Bederman, 1995).

Efforts to institutionalise competitive sport and use it as a means to socialise young men were neither unique nor isolated as several other organisations in Europe and North America were engaged in similar endeavours to disseminate social values through sport. In England, organised sport was seen as filling the vacuum created by the erosion of folk culture in general, and folk sports in particular, with rapid urbanisation (Collins, 2013, pp. 14–21; Holt, 1990, pp. 135–202). There was a relative democratisation of sporting opportunities in industrialising societies in the early 1900s as physical training became an integral part of education in schools and workers’ sports leagues for both men and women became popular (Cahn, 2015; Hargreaves, 1994; Wheeler, 1978; Leigh & Bonin, 1977). Funding for formal, rule-bound sporting activity for the working class were seen as attempts to regiment and structure workers’ use of leisure time while also engaging them in an activity that would dissipate excess physical energy, and build discipline and respect for authority (Wheeler, 1978; Brohm, 1978/1989). However, arguments that organised sport engaged workers in a meaningful shared activity – outside of the factory settings – thereby presenting opportunities for their political organisation undergirded various workers’ sports movements (Wheeler,

1978; Gounot, 2001). The kind of sporting activity that was available to the elite as compared to the working classes differed and the social meaning and function of sport for different classes differed, but “as organized sport gained in popularity, it intensified the association between athleticism and masculinity” (Cahn, 2015, p. 12).

It is in this context that physical training and institutionalised sporting contests rose to cultural prominence as a means of socialising (white) boys into their class- and race-appropriate masculine roles (Beamish & Ritchie, 2006). Organised sport presented the ruling elite – White Anglo-Saxon men – with an arena for cultivating and displaying physical strength and moral rectitude which legitimised their position as leaders (Cahn, 2015, p. 11). Setting the Olympic Games within this socio-historical and political context provides insights into the ways in which anxieties about the appropriate embodiment of masculinity were worked out in the sporting arena which became a proxy for establishing gender and racial supremacy, serving to naturalise the social order which privileged (heterosexual) white men (Bederman, 1995; Cahn, 2015).

#### ***4.1.1. Higher, Faster, Stronger, and Manlier: The Olympics as a Masculinity Project***

French Baron Pierre de Coubertin is widely recognised as the ‘father’ of the modern Olympic Games (IOC, 2021b). Official Olympic lore, which borders on the hagiographic, attributes the success of the Games to Coubertin’s selfless, heroic efforts at reviving an ancient tradition (Kidd, 2013b; Young & Wamsley, 2005, pp. xiii–xxv). While Coubertin’s attempt to revive the Olympic games is considered his crowning achievement, it was only the frontispiece of this larger pedagogic enterprise aimed at revitalising French manhood through broad-based physical education. However, his philosophy of sport was neither singular nor wholly original but derived from a social and intellectual milieu where the link between

physical training and mental well-being and moral probity was being articulated by educationists and medical professionals. His attempts to modernise France by reforming its education system also fit in with concurrent efforts being made by the French Aristocracy to restore the nation's glory, following military defeat against Prussia in the 1870 war. The ambient fears of a decline in masculinity mingled with a wistfulness for waning aristocratic ideals, ethno-nationalistic fervour and imperialist imagination in his philosophy of sport as a disciplining and ennobling masculine pursuit. The following section traces some of the ideas and efforts of the Baron Pierre de Coubertin not to reify him as the originator of the modern Olympic movement, but as a way of accessing attitudes towards sports and masculinity that characterised his era while also contextualising his inter-related projects of reforming the French physical educational system and establishing the modern Olympic Games.

Primarily an educator, Coubertin's key concerns – in his own words – was that under the French education system, “[e]ven as intelligence is force fed [to students] the way geese are force fed, their physical strength is being sapped, their moral energy drained” (de Coubertin in Müller, 2000, p. 52). His vision for using sport as an educational tool to remedy this energy drain and socialise boys appropriately was informed by his wide reading and his travels across Europe and North America. The French physical education at the time was influenced by the German model of organised physical exercises with nationalistic and militaristic overtones (Wesseling, 2000). For Coubertin, this model was too rigid and martial and hence in need of reform while the other available system of physical education – Swedish gymnastics – was “gymnastics of the weak” (Müller, 2000, p. 293). He studied the English and Irish educational systems closely to develop a pedagogical framework that could be transferred to the French context. It was in this system of training, undergirded by the tenets of muscular Christianity and the peculiarly British version of the Greek ideal that Coubertin

found the framework for a system of physical education that he sought to replicate in France, with the explicit intention of shoring up French masculinity (Chatziefstathiou, 2015).

The Victorian Muscular Christianity movement, which originated in England in the 1850s and was influential in Anglophone nations at the time, synthesised concerns about masculinity, morality, national duty, and pedagogy in developing a physical education curriculum for boys which would train future (imperial) leaders who “manifested the characteristics of ‘good Christian gentlemen’” (Watson & Parker, 2014, Chapter 4, p. 44). In *Tom Brown’s Schooldays* Thomas Hughes elaborated on the possibility of building moral rectitude and cultivating the mind by training the body (Winn, 1960). Similar ideas were expressed in the works of Charles Kingsley, who believed that sports would help “boys acquire virtues which no books can give them; not merely daring and endurance, but better still, temper, self-restraint, fairness, honour, unenvious approbation of another’s success, and all that ‘give and take’ of life which stand a man in good stead” (Holt, 1990, pp. 93–94). These tenets were put into practice by British educators such as Thomas Arnold who encouraged Rugby in the schools under his purview as it “taught ‘manly behaviour’ that was vital for young Christian men” (D. Brown, 2005, p. 23).

Beliefs in the efficacy of sport as a means of physical and moral education expressed in the writings of Kingsley and Hughes, and the efforts of Thomas Arnold, formed the core of de Coubertin’s pedagogic philosophy of sport and his efforts to institutionalise the Olympic Games. In addition to his study of the British schools, he also spent months in the United States of America in 1889 surveying the physical education programmes in several US colleges and universities as an official member of the French Ministry of Public Instruction. This exposure to intercollegiate sports systems in America and Canada strengthened his



belief that systematised physical education and sporting contests, in keeping with Thomas Arnold's vision, would not only improve students' health and morale but also aid their intellectual development (Winn, 1960).

Within the French educational system, according to Coubertin, "boredom and weakness, those purveyors of immorality, hold sway pretty much from top to bottom" (Müller 2000, p. 116); this was in sharp contrast to his understanding of the British system as one which inculcated qualities of "[i]nitiative, daring, decisiveness, the habit of self-reliance and of taking responsibility for one's own failures" in young boys through the means of rigorous physical education (Müller, 2000, p. 115). However, such competitive team sports that were autotelic in orientation and practised in the spirit of "sportsmanship, fair play [and], amateurism" were not the standard within the British education system but a staple of the elite boys' schools such as Eton and Rugby (Wesseling, 2000, p. 168). These ideals aligned with the then contemporary aristocratic values which explains their appeal to Coubertin and members of the upper echelons of French society. This vision of sport, as distinct from Swedish gymnastics training which stressed on rhythmic movements and the German model which focused on strictly regimented militaristic training became Coubertin's paradigm for defining sporting activity (Wesseling, 2000). Through the eventual institutionalisation of the modern Olympic Games, competitive sports that stressed on free, imaginative play and strategising over repetitive movements became universalised as the essence of sport.

Coubertin's philosophy of sport and his efforts to institutionalise the Olympic Games as a trans-national sporting event, however, was marked by tensions and internal contradictions. His deeply patriotic and nationalist commitment to bolstering French masculinity through rigorous sports training collided with the internationalist impulse underpinning his vision for

the global Olympic Games. This drive to globalise the Olympic Games was informed by imperialist notions that a particular version of physical culture – western, rule-bound physical contests under conditions of formal equality – was noble and educational, while other forms of physical cultures were inferior and merely recreational practices that had to be replaced. While his explicit views were that “For every man, woman and child, it offers an opportunity for self-improvement” (IOC, 2021b), given the valorisation of amateurism, participation in this socially valued form of physical activity was accessible only to men from the elite and leisured classes. Further, women were initially formally excluded from participating in the Games as “[a]n Olympiad with females would be impractical, uninteresting, unaesthetic and improper” (qtd in Harper, 2022, p. 1).

The paradox between the scheme to promote “sport for all” (IOC, 2021c) and the fundamentally elitist Olympic Games, which sought to attract and reward the best athletes was reconciled by emphasising that “Olympic athletes were fundamentally abstractions intended to motivate average men to incorporate physical activity into their lifestyles” (Young & Wamsley, 2005, p. 25). The key vision of the Olympic Games was to enable “solemn and periodic exaltation of male athleticism, based on internationalism, by means of fairness, in an artistic setting, with the applause of women as a reward” (de Coubertin, qtd in Chatziefstathiou, 2008, pp. 101–102). The Games were thus “a curious convergence of the real and the ideal ... intended to reinforce the social value and aesthetic potential of everyday sport” (Young & Wamsley, 2005, p. 31). The Olympic Games were not intended to be diversions or entertaining spectacles; but watching consummate athletes was expected to edify the audiences who would reflect on the human condition by way of contemplating the body in motion. The athletic body thus envisioned as an object of metaphysical contemplation was inevitably White and male. This masculine, white European version of

sport – inflected by aristocratic ideals was exported to the world mainly through colonisation and cultural imperialism.

Situating the Olympic Games within this broader web of concerns about redefining masculine ideals and appropriate embodiment of masculinity under altered socio-political conditions highlights the contingent factors and exigencies that mark its development into a global quadrennial sporting spectacle. This challenges dominant official narratives that divorce the Games from social and political concerns, positing them as a mere embodiment of the a-historical, transcultural essence of sport. Demythologising popular conceptions of sport as a-political and purely meritocratic, and athletic performances as primarily fuelled by natural capacities challenges the sustained “illusion that sport and its bodies are transparent, set apart from politics, culture, and the economy” (Cole, 1993, p. 86) and provides the space to reimagine contemporary sporting practices rather than accept them as natural or inevitable.

#### **4.2. Female Athlete as a Problematic Cultural Figure**

The first Olympic Games, held in 1896 in Athens was an all-male affair and in the subsequent Games, women were only permitted to participate in unofficial exhibition events on the basis of invitation from the host countries (Hargreaves, 1994). Women participated in golf, tennis, sailing, croquet and equestrian events at the 1900 Olympics held in France (IOC, 2021d); they participated in tennis, and unofficially in archery at the 1904 Games (Mitchell, 1977). With the British Olympic Committee officially in charge of the 1908 London Olympic Games, women were allowed to compete in archery, lawn tennis and figure-skating competitions (Hargreaves, 1994, p. 210). Even as popular support for women’s sport was growing, the Olympic Committee remained resistant. When total exclusion of women became an untenable position, women were allowed entry only into feminine-appropriate

sports and not treated on par with male participants (Hargreaves, 1994, pp. 209–234). The IOC was particularly strident in its opposition to the inclusion of women’s athletics as track and field events; these events were understood as unfeminine as they emphasised strength, speed and power rather than grace. These concerns were also expressed in medical terms as fears that women would be rendered “unfeminine” by rigorous physical activity which could also jeopardise their child-bearing capacity (Lenskyj, 1986; Cahn, 2015). The legacy of this construction of track and field events as masculine has been long-lasting: most of the targets of gender-verification tests have been women competing in these events; even the current Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development) target track and field events.

The exclusion of women from the Olympic Games in the late 1800s and early 1900s drew on and strengthened the then contemporary constructions of femininity which associated it with physical weakness (Cahn, 2015; Hargreaves, 1994). Competitive sports were generally understood both as an appropriately masculine pursuit and a means of socialising boys into their class-appropriate roles in society. Within this strongly masculine milieu, women’s participation threw into crisis the circular logic underpinning the construction of sport as both potentially masculinising and an expression of masculinity (Cahn, 2015). The following section draws on the works of feminist sport historians from North America and Britain, to provide a brief, necessarily partial and thematic retelling of women’s sport in the West, exploring the problematisation of athletic femininity and the feminist attempts to gain access to competitive sporting activities and the more radical attempts to go beyond inclusion and redefine the core masculinist values of sport.

While the history of women's sport presents a rich tapestry of interweaving concerns and contrasting conceptions of sport and its social purpose, a common thread that knits these concerns together is the problematic social position of female athletes who were (and are) treated as trespassing a male terrain into which they are begrudgingly welcomed if heterosexually attractive but apprehended with suspicion if too athletically gifted (Miller, 2001). These larger tensions around athletic femininity, informed by classed and racialised ideals of appropriate femininity, are reflected in the articulation and selective application of Hyperandrogenism Regulations. When dislodged from the official discourse of fairness and the need to protect women's sport and situated against this backdrop of enduring suspicion of female athletes, Hyperandrogenic Regulations can be seen as an enactment of gender policing (Erikainen, 2020). When women embody physical strength and athleticism, they injure conventional expectations of appropriate femininity; they are far more often stigmatised and treated as aberrations, thereby separating conventional femininity from athleticism. The potential that a strong, muscular embodiment of femininity holds to disrupt the gender binary is thwarted by rendering these athletes suspect, both as capable athletes and as women.

#### ***4.2.1. Women in Sport: A Brief History***

In late 19th century Europe and America, as the link between masculinity and vitality was being strengthened through formal sport, the pale, frail and firmly corseted "conspicuous consumptive" became the archetypal image of upper- and middle-class womanhood (Hargreaves, 1994, p. 60). This construction of femininity itself as a form of invalidity was solidified with the rise of modern medicine, a normative science, which functioned with the male body as the default (Foucault, 1976/1978; de Beauvoir, 1949/2009). As the human body was demystified and made amenable to scientific analysis, medical discourse emerged both as a preeminent field of scientific inquiry that monopolised the production of 'truth' about the

human body and an allied set of control mechanisms that objectified and rectified the truant body (Foucault, 1976/1978).

Within medical science, women's bodies were understood primarily in reference to their wombs, and by extension their proper social role as mothers. Pregnancy and childbirth – discrete temporary stages in the life of most women – acquired an all-consuming significance as women's bodies, and their entire existence, was treated as a preparation for motherhood (Connell, 1987). Biological differences between the genders were thought to permeate every fibre of the being rather than being limited to certain reproductive distinctions (Fausto-Sterling, 2000a; Connell, 1987). This inflation of differences and conflation of femininity with (eventual) motherhood congealed into the medical notion of 'constitutional overstrain': doctors held that in contrast to men's bodies, women's bodies had limited energy which was meant to be reserved for childbearing and rearing (Hargreaves, 1994, p. 45; Lenskyj, 1986, pp. 18–20). Medical doctors, mostly men, became not just scientific authorities but also moral authorities on the appropriately gendered use of the body. They advocated that any excessive activity – either of the intellect or of the body – could dissipate women's limited energy and jeopardise their capacity to bear children, thereby posing a threat not just to the health of individual women, but to the very moral fabric of the society (Hargreaves, 1994).

At the turn of the century, doctors enforced idleness and respite from activity as the panacea for all of women's ailments. Hemmed in by hoop skirts and sanctimonious medical advice, these eventual mothers were allowed little physical or intellectual activity. This paternalistic drive to safeguard women from the perils of exertion, however, was disproportionately focused on white middle-class women. Working-class women had to contend with the necessity of hard manual labour in both domestic and industrial settings. The exertion and

consequent physical injuries experienced by working-class women within factory settings was not considered with the same gravity as potential injuries or strain from sporting activity (Hargreaves, 1994; Cahn, 2015; Lenskyj, 1986).

Notwithstanding these strong injunctions against exercise, women from the aristocratic upper classes still had access to some leisure activities such as croquet, lawn tennis, golf and cricket. These sports were generally played in mixed groups in exclusive settings where the focus was not to compete or develop skills, but to meet potential partners. The ultimate end of sporting activity in this context was not to identify winners through fair competition, but to address the cultural need to provide class-appropriate settings for men and women to meet and find suitable (heterosexual) partners (Hargreaves, 1994, pp. 51–54). As this indicates, the meaning and telos of sporting activity do not inhere in the activity itself but are contextually determined.

While socio-economic changes, combined with feminist activism, expanded women's access to physical activity in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, it was ultimately concerns about fertility – specifically white upper- and middle-class women's fertility – that lent medical and cultural legitimacy to women's participation in sport (Lenskyj, 1986, pp. 35–53). In the 1920s and 1930s, advocates for women's sport in Britain drew heavily on nationalist fervour and eugenicist concerns of 'race suicide' to argue that it was important for white women to be physically 'fit' so that they could bear healthy sons (Cahn, 2015, p. 28; Hargreaves, 1994). Similar concerns were expressed in the United States of America where experts in physical education championed exercise to ease the difficulties of pregnancy and mould healthy, energetic mothers (Cahn, 2015). Thus, rigorous physical activity which could potentially disrupt conventional gender roles became subsumed within the cultural logic of women's

inculcation into their roles as mothers and caregivers. Again, it was medical knowledge which became the final arbiter on the issue of giving women access to physical activity.

With the general cultural and medical consensus supporting at least light activity for women, women's physical culture developed along two distinct lines: physical fitness training, mostly for white middle-class women, and competitive sport mostly for working-class women and black women. Physical fitness training, focused on moderate exercise with a view to supplementing intellectual training with physical training, became a staple in elite girls' schools in England and in schools for middle-class white women in North America. Such training also had a functional focus on helping women become healthy, energetic mothers and fulfil their feminine duties (Verbrugge, 2012; Cahn, 2015; Hargreaves, 1994). Swedish gymnastics, focusing on rigid repetitive exercises were introduced in schools for working-class girls in Britain in the later 1800s and early 1900s (Hargreaves, 1994).

Parallel to the expansion of physical education for middle-class women, professional leagues, mostly for working-class women, developed under the sponsorship of large industries in the United States of America and through polytechnic sports clubs in England (Cahn, 2015; Hargreaves, 1994). Even though access to leisure time and sporting activities was unevenly distributed across different social classes, a general reduction in working hours and expansion of employer-supported sporting leagues gave many young, waged, working-class women opportunities to participate in sport. These women saw functional value in their engagement with sport: it kept them energetic and helped them manage the rigours of difficult physical labour (Hargreaves, 1994, pp. 112 – 144; Cahn, 2015). Freed from some of the expectations of propriety placed on white middle-class women, the athletes in these leagues could participate relatively unapologetically in rigorous competitive sport. To attract male



audiences, the professional leagues in USA, highlighted the sexual attractiveness of their athletes over their actual sporting talent. Beauty contests were held for the players to crown the “tournament beauty queens”, which overtly sexualised the competitors for the consumption of the largely male audience while also allaying any concerns of ‘mannishness’ (Cahn, 2015, p. 78). However, such commercialisation and sexualisation drew criticism from those who considered it exploitative of female athletes (Cahn, 2015). Even as professional sports leagues for women were beginning to take root in the USA in the 1920s, on the other side of the Atlantic, Alice Milliat-led Fédération Française responded to the International Olympic Committee’s refusal to include women’s events in the Olympics by organising the first international Women’s Olympiad in Monte Carlo in 1921 and followed it up with hugely popular meets in 1922 and 1923. Given the rousing success of these events, the IOC eventually entered into negotiations with them, co-opting women’s athletics under the IAAF (Young & Wamsley, 2005; Krieger, Krech & Pieper, 2020).

Even with this expansion and relative democratisation of access to sporting activity, athleticism in women was apprehended with discomfort. So, both the sporting traditions – middle-class physical education movements that stressed on moderation and strove to build a separate women’s physical culture, and working-class professional sports – had to forge new forms of femininity to gain social acceptance and respectability. Within the upper- and middle-classes, the image of weak, inactive women gave way to the vivacious girl and while the working-class women adopted a more unabashedly sexy image to make their womanhood compatible with sport and palatable for the wider society. The ‘athletic girl’ and the boyish, short-haired ‘flapper’ of the 1920s formed a bridge between these two contrasting forms of femininity (Cahn, 2015; Hargreaves, 1994).

With more women engaging in physical activity, scientific research into the impact of sport on women expanded over the years. As gynaecology established itself as a specialised field of medicine, sportswomen became a special object of study (Lenskyj, 1986). The medical problematisation of athleticism in women forms the underlying leitmotif that runs through subsequent research into the physio-biological impact of sport on women. Early research studied gender-specific rather than sport-specific impact of heavy physical activity, with a special focus on menstruation. Women were advised to refrain from strenuous activity during their periods (Lenskyj, 1986, pp. 17–55). Though scientific evidence was ambiguous on the matter, intensive sports training was thought to cause delayed onset of menses, and in some cases increase the interval between periods (Cahn, 2015, pp. 62–63). These effects were coded as irregularities and caused concern, entirely discounting the possibility that women who were not trying to get pregnant might find such effects at least tolerable if not desirable. In this scientifico-medical framework for the study of women's bodies, there was no space for understanding women who could not or did not want to be mothers (Lenskyj, 1986).

It was women's track and field events that became the special source of concern for the largely white middle-class sports administrators and educators—as they were more popular with working-class and African American women due to their accessibility and affordability (Young & Wamsley, 2005; Cahn, 2015; Hargreaves, 1994). It was this display of a tougher, more working-class femininity in events that were conventionally coded as masculine that proved injurious to the sensibilities of the sports administrators. The relative success of black female athletes only solidified this connection while strengthening the notion that black women were not truly feminine (Cahn, 2015). Bolstered by overblown accounts of exhausted female athletes fainting on the tracks and backed by the organisations like the Committee on Women's Athletics [CWA] and National Amateur Athletics Federation of the USA, the IOC

and IAAF withdrew the 800 meters events for women after the 1928 Amsterdam Olympics and was only reintroduced in 1960 (Cahn, 2015; Young & Wamsley 2005). This discomfort with women in athletics continues, as reflected in the formulation of the Eligibility Regulations which includes in its ambit only a select list of track and field events.

#### ***4.2.2. Lesbian Panic: Female Athletes and Desire***

From the square-jawed cyclist to the strong sinewed long-distance runner, the spectre of masculinity has haunted female athletes. As women who embodied traits that were (and are) generally associated with hegemonic masculinity, they were exposed to suspicion and stigmatisation. Post 1930's, the concerns about sports triggering excessive heterosexual desire transformed into apprehensions about athletes' sexual orientation (Cahn, 2015, pp.164–205; Lenskyj, 1986, pp. 55–60). The connection between gender transgression and sexual transgression was forged in the cultural imagination with the emergence of the lesbian subculture and the visibility of butch lesbians. In the extreme conservatism and repression that followed the Second World War, women who questioned the traditional gender order – including professional women and staunch feminists – were accused of lesbianism (Cahn, 2015, pp. 164–184).

Within this milieu of heightened homophobia, female athletes were also suspected of being lesbians, leading women's professional sporting leagues to formally enforce strict dress codes to ensure appropriate gender performance of their athletes (Cahn, 2015, pp. 140–164). As female homosocial environments were now suspected of being saturated with sexual desire, women-only sporting events that had become popular in women's colleges were now rendered problematic. To allay any fears of impropriety, sports days and intramural competitions also included beauty pageants to highlight the elegance and grace of the

participants. These events also began to host mixed events and social dances which were open to boys, and “heterosexual adjustment” became the main aim of their pedagogy and experts in other fields like psychology were called upon to counsel the women in relation to their gender performance. In some sports, the regulations entered the very arena of play as the modified rules and regulations for women represented a codification of gendered expectations. For instance, the women’s basketball league had rules that limited physical contact and the free movement of players on court so as to distinguish women’s version of the sport from the men’s (Cahn, 2015, pp. 83–164).

At the individual level, athletes attempted to dispel potential suspicions by highlighting their own femininity while displacing the suspicion on to distant ‘others’ who were mannish or potentially lesbian. Athletes thus othered were disproportionately black and/or working class – those who did not fit the parameters of middle-class respectability. These regulations meant to police female athletes’ gender performance functioned with dominant, middle-class notions of femininity and feminine propriety as the norm and attempted to shoehorn their athletes into meeting these expectations in order to be acceptable to the wider public (Cahn, 2015, pp. 83–164; Lenskyj, 1986, pp. 55–60).

This short history of women’s sport, predominantly in the West, illustrates the different ways in which female athletes have been culturally problematised over the years, and the centrality of medical discourse in adjudicating and enforcing appropriate athletic femininity. Hegemonic notions of appropriate femininity have shifted subtly with time and athleticism in women is not regarded with the same degree of suspicion. However, appropriate athletic femininity is still defined by Western standards and ratified by biomedical discourse according to which non-white female athletes are cast as always already

inadequately feminine. Policies regulating entry into women's category which enforce normalising medical interventions on intersex\* female athletes are justified as measures to ensure fairness. However, this overt consideration of fairness conceals underlying concerns to maintain a hierarchical, racialised gender binary. Viewed against this backdrop, the gender testing regulations adopted by the IAAF/WA and IOC – the latest iteration of which is the DSD Regulations – emerge as a coherent and formal articulation of persistent suspicions about female athletes, underpinned by the medicalisation of the female athletic body and racist and classist notions of appropriate femininity. This aetiology of the regulations also helps explain the targeting of athletes like Dutee Chand, Caster Semenya and Santhi Soundarajan not as aberrations but as the result of the functioning of these regulations according to their intended design.

### **4.3. Gender Testing Regulations in the Olympics**

The informal suspicion and censure of female athletes found formal expression in the IOC's official gender testing regulations which were mandated in the 1950s. These gender-testing requirements institutionalised the scrutiny and surveillance of female athletes by male medical professionals: whether an athlete qualifies to compete as a woman or not was no longer only a legal question; it was recast as a scientific question which could be answered by medical experts using supposedly incontrovertible and value-neutral biological evidence (Heggie, 2010).

#### ***4.3.1. Gender Verification Tests: A Brief History***

Beginning in the 1930s, there were concerns and suspicions surrounding 'un-feminine' female athletes who were winning medals at the Olympic Games. By the late 1940s both the IOC and IAAF/WA had regulations in place requiring female athletes to carry gender

certificates issued by their home countries. However, even this requirement retained some scope for differences and inconsistencies in determining gender, as the individual countries could enforce their own standards. With the adoption of at-event testing by authorised medical personnel these measures were standardised and medicalised (Heggie, 2010).

Beginning with the European Championships held in Belgium in July 1950, the IAAF/WA adopted at-event medical testing of all female athletes, and the IOC followed suit soon after (Heggie, 2010; Pieper, 2016; Karkazis, Jordan-Young, Davis, & Camporesi, 2012). While the official justification provided for these tests was that they were meant to ensure fairness in women's athletic events by deterring men from masquerading as women, these tests were initially meant to address the disquiet caused by the athletic success of women from the Eastern Bloc (Dickinson et al., 2002).

In the charged atmosphere of Cold War rivalry, the sporting arena became a proxy for political battles, and success in the Olympic Games became a symbol of general national supremacy. Political rivalry between the United States of America and the USSR also played out in the popular press and sports media. The American press contrasted their nimble swimmers and gymnasts with the 'unattractive' muscular track and field athletes of the Soviet Union and the East German Republic using the sporting arena to present the desirability of the Anglo-American social systems and gender regimes (Wiederkehr, 2009). These athletes were held up as evidence of the collapse of the conventional gender order in communist states and the (undesirable) blurring of the boundaries between 'male' and 'female' (Wiederkehr, 2009; Pieper, 2016).

As visibly strong, well-muscled athletes from Eastern Europe not only challenged the dominance of the USA and Britain at the Olympics medal table but also the middle-class

Anglo-centric notions of appropriate femininity, they were subjected to related suspicions of doping with androgens and fears that they might be unscrupulous men masquerading as women to gain athletic advantage (Rogol & Pieper, 2017). Suspected of doping with androgenic hormones, these athletes were portrayed in the anglophone media as transgressors of sporting morality and of gender norms. These concerns about women from Eastern Europe and the erstwhile communist nations indicate that attempts to ensure 'fairness' in women's sport by instituting formal gender verification tests have always been informed by racialised assumptions about appropriate femininity (Wiederkehr, 2009; Henne, 2014; Erikainen, 2020).

As the earliest testing methods were designed to apprehend men posing as women, they comprised physical inspections by doctors which included examination of secondary sexual characteristics and genital examinations (Simpson et al., 1993; Heggie, 2010; Elsas et al., 2000). In this context, physical appearance constituted evidence of femininity and these tests depended heavily on the examining doctors' judgements on what was considered appropriately and adequately feminine (Genel, 2000; Karkazis et al., 2012). These tests caused immense trouble and discomfort to all female athletes who had to submit to invasive medical examinations which were derided as "nude parades", and they caused considerable anxiety for athletes who did not fit the then-prevalent norms of femininity (Rupert, 2011, p. 339). While there were speculations about some athletes who voluntarily withdrew from competitions when these tests were enforced, there is no evidence that tests actually apprehended a man trying to pass for a woman (Ha et.al., 2014; Heggie 2010; Pieper, 2016). With mounting pressure over the inhumane treatment of female athletes, the IOC replaced physical examinations with the more sophisticated and less invasive tests.

Beginning with the 1968 Winter Olympics in Grenoble, athletes were subjected to Sex Chromatin tests which checked for the presence of Barr Bodies or inactivated X chromosomes (Henne, 2014; Rupert, 2011). The transition to Barr Body tests marks a paradigmatic shift in the criteria used to establish femininity: the determining criteria for femininity was no longer only physical appearance or appropriate genitalia, but rather the presence of two X chromosomes. This shift to more sophisticated and less invasive tests to determine gender also marks an increased reliance on medical knowledge in ascertaining the authenticity of athletic performance, which is also reflected in the formation of Medical Committees in response to widespread concerns about systemic doping (Henne, 2015, p. 28–55). These committees were tasked with formulating and enforcing anti-doping regulations, which effectively cast doping issues also as a medical matter rather than as an ethical issue born out of excessive pressure to win, thereby effacing the other systemic factors such as increasing professionalisation and competitiveness that contributed to systematic doping programmes (Henne, 2015).

When the novel, relatively inexpensive Barr Body tests were adopted as the standard gender-testing procedure in 1968, the governing bodies claimed this method of chromosomal testing was infallible. However, such a single factor test was deficient even by the then-current medical standards (Wiederkehr, 2009; Heggie, 2010; Pieper, 2016, p. 62) which recognised “nine components of sexual phenotype” and “that no single index or criterion can signify the appropriate sex for an individual” (Moore, 1968, p. 788). Almost a decade before the adoption of these tests, Murray Barr had himself advocated caution against using these tests and relying on chromosomal composition alone to designate sex (Krieger, Pieper & Ritchie, 2019). Instances of chromosome mosaicism challenged the notions of a clearly binary genetic composition that the IOC and IAAF/WA posited. Given these complexities, athletes who had



chromosome mosaicism (XXY chromosomes) but had been raised as women and athletes with Turner's Syndrome, i.e., only one X chromosome, were being disqualified from competing as women (Sonksen et al., 2015). Further, women with XY karyotype who were anatomically 'normal' and were insensitive to androgen would fail the chromosome test while men with XY karyotype would pass (de la Chapelle, 1986; Erikainen, 2020). Athletes who had high endogenous testosterone but were unresponsive to it owing to Androgen Insensitivity Syndrome were also excluded from competition, even though it was acknowledged that they derived no competitive benefits from their chromosomal and hormonal variations (Erikainen, 2020, pp. 92–94). In addition to these limitations with genetic testing, the undergirding assumptions about the gender binary was also questioned as contemporary medical science acknowledged hermaphroditism (Heggie, 2010).

These gender-testing regulations became the subject of wider public discussion and legal scrutiny in the 1980s as Spanish hurdler Maria José Martínez-Patiño lodged a challenge against them. Martínez-Patiño had passed her gender test in 1983 and been certified a woman, but she failed a sex chromatin test in 1986 and was classed as 'male' on the basis of having XY chromosomes. On the basis of these results, she was disqualified from competing as a woman and was dropped from the Spanish national squad (Ospina-Betancurt, Vilain, & Martinez-Patiño, 2021; Rogol & Pieper, 2018). However, rather than retire quietly, she challenged the Regulations. By bringing her experience out into the open, Martínez-Patiño broke the silence and challenged the stigma surrounding athletes who failed gender tests. Eventually, she won the right to compete as a woman as her body was insensitive to the excess androgen in her system, and the chromosomal variation by itself accorded no competitive benefit (Karkazis et al., 2012; Rogol & Pieper, 2018; Heggie, 2010). This case not only exposed the inadequacies of sex testing mechanisms that were in place, but also

dramatically illustrated the extent to which athletes' sex depended on the classifying criteria as the same athlete who had been certified as a woman was later classed as male based on a different set of criteria.

Opposition to chromosomal testing was also articulated by scientists such as Albert de la Chapelle and Malcolm Ferguson-Smith who conceived of the problem with such tests differently. They articulated fears that chromosome screening might actually enable cheating by "outright males" with XX or XXY chromosomes to pass as "female", which could give rise to planned and systematic fraud. The shift to chromosomal screening rather than visual examinations did not challenge the trope of men masquerading as women; instead the trope was strengthened and made more sophisticated to include not just transvestism but also the possibility of chromosomal passing (Erikainen, 2020, pp. 92–101). Fears of transsexual athletes overtaking women's events mingled with concerns about the participation of athletes with chromosomal variations in this conception of the threat to the authenticity and safety of women's sport. In response to these perceived threats and the limitations of chromosomal screening, the argument was made for the reinstatement of physical tests which included genital examinations (Erikainen, 2020). Despite these disparate protests from athletes and medical experts, the governing bodies persisted with the tests for almost two decades: the IAAF jettisoned the tests in 1992 and the IOC followed suit only in 1999 (Heggie 2010; Kidd, 2018).

Largely in response to the high-profile case of Martinez-Patiño, the IAAF convened a Working Group comprising doctors and medical experts who met in Monte Carlo, 1990, and two years later in London to deliberate on the way forward for gender verification in athletics (Elsas et.al., 2000). The Group concluded that gender verification tests should only exclude

‘masquerading males’ and allow women with genetic and hormonal variations to compete in the women’s category. Following these recommendations, the IAAF jettisoned compulsory testing of all athletes beginning in 1991 (Reeser, 2005). The IOC replaced the Barr Body test with the Polymerase Chain Reaction test which was used at the 1992 and 1996 Olympics to test female athletes for DNA located on the Y chromosome (Ljungqvist et al., 2006).

However, even this diagnostic test had similar limitations and the IOC also stopped blanket testing all athletes in 1999 (Dickinson et al., 2002; Ljungqvist et al., 2006). In the ensuing policy-related discussions about continuing to regulate entry into women’s events, doping tests and gender verification tests became more closely allied as the governing bodies reasoned that the anti-doping regulations which required athletes to provide urine samples in the presence of an official would suffice to ensure that men could not masquerade as women (Kidd, 2018; Cooky, 2000). This connection is also explicitly made in the American Medical Association’s stance against laboratory-based genetic testing to confirm athlete’s *sex* which frames the process of collecting urine samples as a surrogate for genital checks (Dickinson et al., 2002).

While the 2000 Sydney Olympics were the first one since 1968 to not have blanket testing of all female athletes, the IOC medical staff were authorised to conduct tests on suspicious athletes (Cooky & Dworkin, 2013; Reeser, 2005). In 2006, the IAAF released its new Policy on Gender Verification which systematised targeted testing of only those athletes considered suspicious. This revision also marked a shift in focus from chromosomes to testosterone as the seat of masculinity: it was excess endogenous testosterone, combined with XY chromosomes that would disqualify an athlete from competing as a woman (IAAF, 2011). Further, the criteria for what would be considered suspicious was vague and ill-defined, and it legitimised the selective scrutiny of muscular female bodies. While the specifics of the

medical tests and treatments recommended, and the athletic events that are targeted vary, the 2006 iteration of the Regulation, and the subsequent 2011 and 2018 iterations retain their focus on testosterone as the key determiner of gender and athletic capacities.

These regulations are framed as progressive efforts at inclusion but they incorporate some of the most regressive elements of the earlier methods of gender verification in that they continue to sanction the visual scrutiny of muscular female athletes and problematise female athletes who are deemed to be too masculine. Even though the IAAF/WA and IOC continue to insist that these Eligibility Regulations are not meant to verify or certify the athlete's sex but only determine if one qualifies to compete in women's events, they effectively function as gender verification tests. These Eligibility Regulations are qualitatively different from the previous regulations in that instead of merely disqualifying athletes from competing as women, they provide them with the option of medically reducing their testosterone levels in order to compete as women. Athletes are not excluded entirely but given a pathway to re-enter competitions; their participation is conditional upon them fundamentally altering their body to meet the biomedical norms of femininity as set out under the regulations.

The construction of the female body in sport and the development of gender-verification mechanisms and subsequent Eligibility Regulations is closely intertwined with the development of research regarding sex differences. Given the dominant understanding of sporting performance as determined by 'natural' abilities and aptitude, sport has functioned as a field within which insights from research on sex differences becomes particularly relevant, applicable and testable. Common perceptions see sport as lying "outside" society and, as such, sport appears as a testing ground for natural differences (Ritchie, 2003, p. 81). The current focus on testosterone as *the male hormone* which determines athletic

capacities can be situated within the context of increasing prominence of endocrinology in understanding sex differences (Rogol & Pieper, 2018). The analysis of the policy documents in Chapter 5 will engage more closely with the implications of these interconnections between medical knowledge and sport.

#### ***4.3.2. Critiques of Policy-Making Procedures***

Sports governing bodies' reliance on medical and scientific knowledge to support their regulation of intersex\* female athletes has been critiqued as inherently problematic for ignoring psychosocial aspects of gender while treating questions of women's eligibility to compete as merely a bio-medical problem, while de-emphasising the ethical dimensions of the debate (Ha et.al, 2014; Henne, 2014; 2015). The excessive focus on genes and hormones in regulating entry into women's athletics events, to the exclusion of other physiological factors and phenomenological aspects of gender embodiment has been criticised for its narrow conception of athletic advantage (Ha et.al., 2014). These regulations have already caused demonstrable physical and psychological harm to athletes of colour. Even though the DSD regulations explicitly maintain that surgical interventions are not necessary, the IAAF, indirectly, admitted that at least four athletes were made to undergo irreversible, surgical procedures (Fénichel et al., 2013) which could have lasting adverse impacts on their physical and mental health (A. Brown, 2015; 2019).

The ethics of using genetic screening on athletes to determine their gender has also been rendered questionable as the presumption of consent on the athlete's part is problematic as the potential harm that could be caused by the ensuing questioning of their gender identity is not adequately accounted for (Wiesemann, 2011). In contrast to patients who seek genetic tests to know their susceptibility to various conditions, athletes do not voluntarily seek such

testing and are not always prepared for genetic information which might challenge their gender identity – a crucial aspect of their selfhood (Wonkam, Fieggen & Ramesar, 2010). Wonkam et. al., (2010) also note that the usual norms of protections and privacy accorded to patients who seek genetic counselling – also guaranteed by the Regulations themselves – were not followed when enforcing the Regulations in the case of Semenya. The psychological harm that questioning might cause, combined with the public scrutiny that follows if the results are leaked renders the use of genetic testing deeply problematic. This has led some critics to argue that athletes have a right not to ‘know’ their genetic ‘sex’ (Wiesemann, 2011).

The current reliance on testosterone as the key distinguishing factor between men and women rests on assumptions about the efficacy of ‘sex’ hormones in androgenising athletes, and in determining sporting performance and outcomes. These assumptions derive largely from cultural mythology surrounding testosterone and its efficacy. Further, a critical review of scientific studies pertaining to testosterone shows that race functions as a ghost variable in these studies; norms surrounding appropriate levels of testosterone derive from racist assumptions and in effect has racist implications (Karkazis & Jordan-Young, 2020).

Regulations pertaining to the participation of transwomen in sport also draw on similar assumptions about the efficacy of testosterone in determining sporting outcomes. While these regulations appear inclusive on the surface as they allow transwomen to participate, subject to them consistently maintaining testosterone levels below the threshold of 5 nmol/litre, they favour athletes who have access to financial and medical support to transition through means that meet the requirements set by the IOC and IAAF/WA. Such requirements, while appearing inclusive, are supportive of only a section of transwomen while subtly

discriminating against athletes from countries that might not legally recognise their new gender identity or provide adequate medical support for transitioning.

Apart from these critiques that have problematised the use of scientific data for sports policy making, others have noted in these discussions that the participation of intersex\* female athletes presents serious ethical and philosophical questions about the notion of ‘fairness’ and ‘fair play’ in sport, and that in response to these questions, “[w]e cannot expect science to provide ready-made answers on our behalf: decisions have to be taken, not found” (Camporesi & Maugeri, 2010, p. 379). The distinction between natural and unnatural advantages which underpin anti-doping regulations become untenable in the context of female athletes with hyperandrogenism, and the gendered double standards inherent in these regulations become apparent as there is no comparable testosterone limit for male athletes or indeed any regulations against other genetic variations that have been shown to provide competitive advantages. Pointing to these discrepancies, Camporesi and Hämäläinen (2021b) explore the potential of developing sport-specific criteria, rather than a global criterion, to differentiate between fair and unfair advantages. They argue that an athlete’s physiological characteristics should be deemed unfair and therefore liable to regulation only if it gives them advantages that: “(a) are strictly attain-able only to some athletes in the category; and (b) that reduce unreasonably other athletes’ opportunities to win within the category” (Camporesi & Hämäläinen, 2021b, p. 1495). These criteria for distinguishing between fair and unfair advantages consider high endogenous testosterone or variations in sex chromosomes on par with other kinds of advantages accruing from rare genetic variations to argue that for sports policies to be coherent, all these characteristics would have to be regulated.

Given the opaque, secretive deliberations, lack of rigorous screening of scientific evidence, inadequate representation of divergent opinions from athletes and medical professionals, and harm already caused to athletes by these Hyperandrogenism Regulations, Kidd (2018) argues for the IOC's Women's Commission and Athletes Commission to be vested with decision making powers in this area. Karkazis et al., (2012) have advocated for the removal of additional medical testing altogether and have instead argued for using the legal sex of the athlete as indicated in their identification documents to regulate entry into women's events. In advocating for the (conditional) inclusion of intersex\* women, these arguments, however, risk reifying assumptions about 'natural' femininity which consolidates the division between cis-women and those assigned female at birth on the one hand and trans\* women on the other. Further, these arguments rest on making the case that "physiological equivalency" can be achieved between intersex\* women and cis women following medical interventions (Gleaves & Lehrbach, 2016, p. 312).

These critiques point to the inadequacies in current medical evidence and significant issues in the way that sports' governing bodies have used scientific data in support of their policies. They argue for more robust research in the area and more careful deployment of medical knowledge, implicitly accepting the role of medical knowledge as the key arbiter of 'truth' about an athlete's sex (Tucker & Collins, 2009; Pielke, Tucker & Boye, 2019; Kidd, 2018). But, as Cahn (2011) points out, "any determination [of sex] made by the governing bodies of sports is a social one, not a scientific one" (p. 38), and hence we need to pay attention to the social process through which this determination takes place. I argue that medical knowledge is inextricably intertwined with mechanisms of power and knowledge about 'biological sex' that is considered legitimate functions within the episteme of sex/gender discourse which naturalises the two-sex model and enables the explanation of



social differences on the basis of natural differences between the sexes (Butler, 1990, Laqueur, 1990; Fausto-Sterling, 2000a).

The arguments for reconsidering the notion of ‘fairness’ in sport acknowledge that a host of other institutional factors – independent of the athlete’s sex/gender and personal physiological characteristics – can have a strong impact on athletic performance; but they still focus attention more narrowly on regulating advantages related to biological characteristics. These calls for greater inclusion still rely on “demonstrat[ing] physiological equivalency” between cis gendered athletes and intersex\* athletes which disadvantages trans\* athletes while only opening up a pathway for conditional and contingent inclusion of non-binary athletes (Gleaves & Lehrbach, 2016, p. 312). Rather than exploring sport as a set of “meaningful experiences intentionally introduced and shaped by culture”, they essentialise the conception of sport as an attempt to “to measure, compare, and rank competitors according to athletic performance” (Gleaves & Lehrbach, 2016, p. 315). Eschewing such essentialised notions to conceive of sport as a cultural activity with the narrative potential to tell “not only an individual’s but also a community’s story” (Gleaves & Lehrbach, 2016, p. 318) provides us with the scope to reimagine sporting practices to tell different stories about gender and embodiment. Resisting the problematisation of intersex\*, trans\*, and non-binary athletes and going beyond seeking their conditional inclusion within the existing sporting institutions enables us to explore the promise that these “glitching bodies” (Linghede, 2018) hold to challenge the institutional status quo.

#### ***4.3.3. Legal Critique of Eligibility Regulations***

Most legal critiques of the Eligibility Regulations have explored the possibility of using existing anti-discrimination laws and human rights protections to win litigations against the

Regulations and other similar eligibility regulations that target intersex\* and trans\* female athletes (Glazer, 2012; Adair, 2011). These Regulations are seen as mythologising the 'level playing field' in sport which is not achievable in practice while also invisibilising transgendered men and disproportionately excluding transgendered women and intersexed women from competing (Buzuvis, 2016). In the absence of similar eligibility regulations for the 'male' category, these regulations are deemed seen to discriminate against all women, who can be subjected to gender verification tests (Saleem, 2010). Literature focusing on examining the rationale for hormone-based regulations see the use of medical knowledge as necessary to develop a better understanding of the relationship between sex/gender and athletic capabilities, subsuming ethical questions under scientific questions (Johnston, 2020; Gandert et al., 2013). Developing more scientifically accurate definitions of what constitutes intersex variations is seen as necessary for enacting better policy measures that recognise the rights of intersexed athletes in relation to the rights of socially accepted female athletes (Larson, 2011). However, others have pointed out that the IOC and IAAF draw on scientific data selectively to posit a 'normal' level of testosterone in female athletes and present an overly simplistic account of sex/gender differences in athletic performances (Glazer, 2012).

Some legal critiques have focused on the possibility of exploiting the inconsistencies between Hyperandrogenism Regulations and the higher order principles articulated in the Olympic Charter and IAAF/WA's constitution to win legal battles against the Regulations (Bach & Nguyen, 2018). Both the IAAF/WA and IOC acknowledge that "Every individual must have the possibility of practising sport, *without discrimination* of any kind and in the Olympic spirit, which requires mutual understanding with a spirit of friendship, solidarity and fair play" (IAAF constitution, r. 4.1 J, p. 2; IOC – Fundamental principle number 4, p. 8). The Hyperandrogenism Regulations are seen as violating these principles as they discriminate

against all women: there are no equivalent testosterone limits or eligibility regulations for cis-men (Law & Wells, 2019; Adair, 2012; Glazer, 2012; Bach & Nguyen, 2018). Further, if excessive endogenous testosterone is understood to confer athletic advantages, it is suggested that similar medical tests and “‘corrective’ treatments” should be applied to male athletes as well (Law & Wells, 2019, p. 18).

Contrasting the Eligibility Regulations with national anti-discrimination laws and protections for expression of their gender identity, scholars have examined the enforceability of the Regulations in particular jurisdictions (Johnston, 2020; Larson, 2011; Archibald, 2019; Mangle, 2021). However, using existing anti-sex-discrimination protections to win rights of intersex can pose difficulties as they neither fit the existing ‘male’ or ‘female’ categories (Zaccone, 2020; Larson, 2011). Further, given the sprawling transnational bureaucratic structure of sports governance, there is confusion around the applicability of national and international laws and conventions to global sports federations (Archibald, 2019).

Additionally, it is also unclear the extent to which National Sporting Federations and National Olympic Committees are bound by the laws of their respective countries, given that they function under the aegis of international associations and federations. Sports governing bodies have been largely successful in arguing for the “autonomy of sport” to skirt human rights, privacy laws and anti-discrimination legislations while underplaying their legal (and moral) responsibilities towards the athletes under their purview.

These critical evaluations of the legality of the Eligibility Regulations generally acknowledge that the participation of intersex\* female athletes in women’s sport is an issue requiring appropriate regulatory attention and they forward alternative, more equitable measures to resolve issues with the particular policies being critiqued (Glazer, 2012; Katz & Luckinbill,

2017; Johnston, 2020; Bach & Nguyen, 2018). Some suggest eschewing additional medical testing or interventions altogether and suggest instead that the Sports' governing bodies use the athlete's birth sex or the gender with which they have consistently identified (Katz and Luckinbill, 2017; Glazer, 2012). However, these suggestions risk reifying sex as determined at birth, as distinct from gender; they also impose expectations of continuity of gender identity which can disadvantage transgendered athletes. Recognising these limitations, Zaccone (2020) argues for either not sex-segregating sports or using athletes' self-identification when necessary to sort them into competition categories in sex-segregated sports. Similarly, Adair (2012) and Archibald (2019) argue for broader institutional reform rather than limited policy measures: integrating athletic activity at all levels is seen as the most equitable solution.

The limited success that athletes have had in appealing against the Hyperandrogenism Regulations through legal channels indicates that the regulations are difficult to resist under the current legal framework. I argue that the procedural concerns and other practical difficulties encountered in legally enforcing human rights point to the shortcomings of the presumption of human rights as imprescriptible and the underlying juridical notion of power which does not account for the ways in which power produces and not merely constrains subjects. The answers to Hannah Arendt's pointed questions, "What is protected by human rights and who or what is responsible for providing that protection?" (Cartland, 1992, p. 6) are unclear even today, especially so in relation to the rights of the athletes subjected to Hyperandrogenism Regulations. I engage with these discussions on the limitations of the liberal humanist conception of the rights-bearing subject (Foucault, 2003; Golder, 2015) to better explain the persistence of these Regulations even as they are challenged on the grounds that they violate the basic human rights of intersex\* female athletes. Existing legal critiques

mostly engage with the Hyperandrogenism Regulations from the standpoint of a liberal humanist conception of law and power. I argue that conceptualising the legal apparatus not as a counterbalance to the excesses of power but as intricately enmeshed with the mechanisms of disciplinary power provides a better framework for analysing the court proceedings in Chand and Semenya's cases (Golder & Fitzpatrick, 2009).

## Chapter 5. Policy Analysis: Challenging Existing Problematisations

Attempts to regulate sexually ambiguous bodies in sport have been disproportionately focused on women whose *masculine* characteristics are seen to confer them with unfair advantages over their fellow competitors in the same category. As noted in the previous chapter, the IOC and IAAF/WA have had policies in place to regulate entry into women's athletics events since at least the 1940s. However, in response to continued criticism and challenges by athletes and medical experts, the IAAF/WA discontinued its practice of subjecting all female athletes to diagnostic laboratory tests beginning in 1991. (Simpson et al., 2000). Subsequently, the IOC also stopped on-site testing of all female athletes at its events, heeding to the recommendations made by its Athletes' Commission in 1999 (Elsas et al., 2000; Reeser, 2005). The IOC and IAAF/WA then adopted targeted testing, where only athletes who were considered suspicious would be subjected to further medical examinations to assess their femininity (Simpson et al., 2000).

To standardise the protocols for such targeted testing, the IAAF/WA adopted the "Policy on Gender Verification" in 2006 – referred to as the 2006 policy hereafter. Though nominally a "gender verification" policy, the document clarifies that the aim of the policy was not to identify or fix the gender of the athletes tested, but only to determine their eligibility to compete in women's athletics events (IAAF Regulations, 2006). This policy was updated five years later– following an 18-month-long review by an expert working group. The "IAAF Regulations Governing Eligibility of Females with Hyperandrogenism to Compete in Women's Competition" (referred to as the 2011 hyperandrogenism policy hereafter) came into force on 1 May 2011. Focusing on 'young females' 'who are affected by hyperandrogenism', these regulations fixed the upper limit for testosterone in female athletes at 10nmol/litre; those with higher levels of endogenous testosterone would be required to

undergo “prescribed medical treatment” to be eligible to compete in women’s category (IAAF Regulations, 2011, p. 10). Clauses were also included in the policy to ensure that athletes’ medical data would be kept confidential. This policy was modified following Dutee Chand’s appeal in the Court of Arbitration for Sport; in its interim ruling in the case, the CAS found the scientific evidence in support of the 2011 hyperandrogenism policy to be insufficient and hence suspended them temporarily. The IAAF/WA was given 2 years to provide more evidence, failing which the Regulations would have to be rescinded (*Chand v. AFI & IAAF*, 2014).

In response CAS’s interim ruling, the IAAF/WA funded research to study the impact of testosterone on athletic performance in men and women. Based on the findings of this study by Stéphane Bermon and Pierre-Yves Garnier (2017), the IAAF/WA updated its regulations in November 2018 and adopted the Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development) – referred to as the 2018 DSD policy hereafter. While the 2018 DSD policy applies only to five track and field events, the upper limit for testosterone level is halved to 5 nmol/litre. These regulations were challenged in the CAS by South African athlete Caster Semenya, with support from Athletics South Africa. However, in this instance the CAS upheld the Regulations, even though it was found to be *prima facie* discriminatory; such discrimination was deemed necessary for ensuring fairness in women’s sport.

Taken together, the 2006, 2011 and the 2018 policies provide clear, explicit articulations of the IAAF/WA and IOC’s framing of the problem facing women’s athletics and by implication, their notion of the appropriate female athlete. In this chapter I analyse the policy documents closely, drawing on the “policy-as-discourse” approach which holds that a policy

does not merely respond to an objective, external problem, but discursively produces both the problem and the solutions (Bacchi, 2014). I examine the construction of female hyperandrogenism as a medical problem and the concomitant construction of the ‘female athlete with hyperandrogenism’ as a problematic and threatening subject. I engage with the problematisation of intersex\* female athletes to examine the assumptions, and taken-for-granted truths about sex, sexual development and athletic advantages that underpin the policies. Such a problematisation of hyperandrogenism constitutes ‘hyperandrogenic’ athletes as subjects who are in need of medical treatment. Such individualisation of the problem naturalises the compulsory sex-segregation of athletic events and the notion of fairness or ‘fair competition’ which necessitates policing the borders of the ‘female’ category.

### **5.1. 2006 Gender Verification Policy**

The 2006 Policy document provides a brief overview of the background – the “issue” facing women’s sport – that it seeks to address. The policy then delineates the “[p]osition of IAAF” with respect to gender verification and outlines the “process for handling cases of gender ambiguity” (IAAF, 2006, pp. 1–3). The policy document also includes the IOC’s explanatory note and the Stockholm consensus on sex reassignment in sport as attachments in support of the regulations. This policy presents “gender issue” in women’s sport as a historical constant, even if the specific measures adopted to deal with this “issue” has changed over time. Exactly what constitutes “gender issue” is left vague in this document, and the ‘issue’ encompasses both “cases of gender ambiguity” and “transsexual” athletes. While further medical testing of those athletes considered suspicious on either of these grounds is recommended, there is no single standardised verification test or specific set of suggested interventions that athletes have to undergo before they are deemed eligible to return to competition. These matters are



largely left to the discretion of the medical delegates and the medical panel, and the overarching suggestion is to handle each case that arises on an individual basis.

### ***5.1.1. “Gender Issues” and Medical Solutions***

The stated aim of the 2006 policy is “to establish a policy and mechanism for managing the *issue of gender* amongst participants in women’s events.” In stating that “[g]ender has since many years been an issue that surfaces from time to time in women’s athletic meets”, the policy frames women’s sport as always already threatened. By repeating “issue” and “gender” in close conjunction several times in the document, the policy forms associative connections between “gender”, an anomalous “issue” and “women’s sport”, strengthening the perception of gender itself as an issue in women’s sport. The policy document continues to remain vague and evasive about what exactly the issue is – calling it ‘gender ambiguity’ ‘sexual ambiguity’ and ‘problem’ (IAAF, 2006). Gender is repeatedly nominalised in the policy document which solidifies the impression that it has an independent, objective, pre-discursive existence and agency. This is illustrated in statements such as “[g]ender has ... been an issue that surfaces from time to time” and “gender issue is likely to arise” (IAAF, 2006, pp. 1–2). Such ascription of agency to gender makes the ‘gender issue’ seem persistent, and ever-present – even if occasionally imperceptible. Conversely, when addressing the testing of athletes on the basis of suspicion, passive construction is employed. The policy document asserts that a medical evaluation will be conducted “if there is any ‘suspicion’” or if “there is a ‘challenge’” (IAAF, 2006, p. 2). This strategic use of the passive voice, combined with the nominalisation of gender, erases the processes of near relentless scrutiny that female athletes are subjected to – making it seem like the “gender issue” arises without the intervention of processes of medical examination. Further, it also obscures those who raise ‘suspicions’ and file ‘challenges’, absolving them of any responsibility.

The policy demonstrates an ambivalent stance in relation to its position within the history and trajectory of gender testing procedures. While appealing to historical continuity in justifying the need for a standard policy to regulate entry into women's sporting events, the policy also attempts to break away from the legacy of previous gender verification procedures which are acknowledged as having "too many uncertainties", though specific details of these uncertainties are not provided in the document itself (IAAF, 2006, p. 1). The policy document points out that "[g]ender verification for the purpose of competition has undergone significant evolution since attempts were made to introduce measures aimed at ensuring fair competition amongst female athletes" (IAAF, 2006, p. 1). There is only a tentative, feeble reckoning with the problems with the initial gender testing methods, which are glossed over as "crude and perhaps humiliating" (p.1).

When mentioning different gender verification mechanisms that were used and eventually discarded, some changes are presented as independent events – "this quickly gave way" – while others are framed as a result of challenges made by "experts in the field" (IAAF, 2006, p. 1). Further, the repeated use of 'gender verification' as a noun rather than as a verb gives it fixity, rather than presenting it as a process or set of procedures employed by the IAAF/WA. The reference to 'evolution' also sparks associations with progress and growth, making the changes in verification procedures seem not only credible but also inevitable and inherently desirable. There is little direct reference to the role of sports' governing bodies in adopting, enforcing and changing these gender verification procedures. When the IAAF/WA and IOC are directly mentioned, it is to note that they abandoned genetic screening of athletes in 1991 and 2000, respectively. Overall, through the lexical and syntactical choices, 'gender verification' measures are given a growth trajectory of their own, shaped by medical

knowledge; these measures are also framed as a necessity for ensuring fairness in women's sport.

Having briefly noted the problems and insufficiencies of previous gender verification tests, the policy notes that the problem which necessitates testing measures persists, and is hopeful of resolving it by drawing on medical expertise:

However a search has continued for an acceptable and equitable solution in order to be able to address the occasional anomalies that do surface either as a chance observation during the ubiquitous anti-doping controls these days or through a 'challenge' by a competitor. Whilst this issue is far from completely resolved there is sufficient consensus of opinion amongst experts in the field as well as sports medicine specialists to be able to introduce a formal policy and mechanism, at least ad interim, so that proper guidelines can be given to event organisers, national associations, athletes and officials as to how to approach this problem and to come up with a satisfactory solution when faced with a case. (IAAF, 2006, p. 1).

While it is acknowledged that the suggested solution has to be "acceptable" and "equitable", there is no reference to the standards on the basis of which its acceptability or equitability would be judged. Further, the *issue* is framed as a medical problem, to be resolved through guidance from "experts" and "sports medicine specialists"; this framing side-lines the moral and ethical dimensions of regulating entry into women's sport while foregrounding medical knowledge in resolving this issue.

There is no clear positive definition of conditions that would be targeted for medical correction. Rather, such conditions are identified by excluding from further scrutiny other conditions such as androgen insensitivity syndrome (AIS) and polycystic ovary syndrome

(PCOS) that are seen to accord “no advantage” or only “some advantages” (IAAF, 2006, p. 2). Though a distinction is made between these conditions on the basis of the degree of competitive advantages that they may confer, there is no information provided with regard to how these advantages are measured, or how decisions regarding permissible advantages are arrived at.

The policy clarifies that there will be no “compulsory, standard or regular gender verification during IAAF sanctioned championships” (IAAF, 2006, p. 2), and instead athletes will be asked to undergo medical evaluations if there is any ‘suspicion’ or ‘challenge’. The section on the “Process for handling cases of gender ambiguity”, notes that “gender issues” might be brought to the notice of the federation for intervention when “a challenge” is made by fellow athletes (IAAF, 2006, p. 3). This provision normalises and provides official sanction for the scrutiny and surveillance of athletes who do not fit the stereotypical criteria for femininity, co-opting fellow athletes into this process of surveillance, which can create a further divide between ‘normal’ female athletes and those deemed to be too ‘masculine’. This can also exacerbate racial divide as non-white athletes from the Global South are disproportionately targeted by such scrutiny, as they are perceived as insufficiently feminine in relation to the implicitly euro-centric criteria for femininity. That Indian athlete Santhi Soundarajan and South African runner Caster Semenya were the only two high-profile cases of athletes subjected to testing under these regulations bears testimony to this. Further, anti-doping measures become closely allied with gender verification procedures, with the sample collection process becoming a surrogate for genital examinations.

The policy further states that when suspicions are raised, either by fellow athletes or by IAAF/WA medical delegates, gender determination will be made not solely through

laboratory-based testing, but by “a panel comprising gynecologist, endocrinologist, psychologist, internal medicine specialist, expert on gender/transgender issues” (IAAF, 2006, p. 2). While this is more comprehensive than the previous diagnostic test which only accounted for the athlete’s genotype (presence of two X chromosomes) in determining femaleness, it still uses a primarily biomedical criteria – however loosely defined – to verify sex/gender which authorises the medical institution to function as the arbiter of truth about ‘sex’ and reinforces the idea of sex as merely biological on which gender is constructed. Once a “case” is brought to the notice of IAAF/WA, the policy states that further medical examinations will be handled by the appropriate investigating authority, in confidence. Following these examinations, the athlete will be advised – through their national federation – as to the need for withdrawing from competition “until the problem is definitively resolved through appropriate medical and surgical measures” (IAAF, 2006, p. 3). Following the evaluation of the effects of such measures, the athlete will be informed as to “if and when” they can return to competition, indicating the possibility that some athletes might not be allowed to return to competition.

The 2006 policy does not standardise the testing measures or provide details of the subsequent medical ‘treatments’ that would enable athletes targeted under these regulations to return to competition. There is no clarity provided in the policy document on how the *gender issue* could be resolved, beyond the suggestion that it is amenable to resolution through medical interventions. The policy document ends with the suggestion that “[t]he IAAF should also set up a resource panel at the HQ level that may need to be called upon if there is a need for resolution of difficult cases” (IAAF, 2006, p. 3). Rather than providing a clear path forward, this suggestion is vague as neither the standards for selecting members to

this panel are articulated nor any explanation is provided as to what the ‘difficulties’ in a ‘case’ may be. Such a lack of procedural clarity with regard to what constitutes a gender ambiguity issue and how this could be resolved is important to consider when examining the practicalities of the enforcement of these regulations. The limitations of the implicit approach here to address each instance of ‘gender ambiguity’ on a case-by-case basis is highlighted in Indian athlete Santhi Soundarajan’s experience of being subjected to medical testing under these regulations.

Soundarajan was stripped of the silver medal she won in the women’s 800m event at the 2006 Doha Asian Games as she ‘failed’ the gender verification tests conducted in accordance with the 2006 policy. As there were no processes outlined in this policy to ensure the privacy of the athletes’ medical data, sensitive details from her medical tests were divulged to the press, leading to speculations in the media about her gender: several news articles made conjectures that medical examinations showed that Soundarajan was a ‘man’ (Orvice, 2006; Ellis, 2006). The Athletics Federation of India withdrew support for her and as the 2006 policy did not provide a definite pathway to get back to competition, her career as a competitive athlete effectively ended following the medical examinations and ensuing revelations. These events not only impacted her professionally they also had a severe adverse impact on her mental health. However, in the considerations about whether the policy proposed by the IAAF/WA is “acceptable and equitable”, the impact it has on athletes who are deemed to be sexually ambiguous and consequently subjected to medical examinations and intervention procedures is rarely considered (IAAF Regulations, 2006, p. 1).

### ***5.1.2. Transgender Athletes: Attempts at Conditional Inclusion***

As noted earlier, the 2006 policy addresses both “cases of gender ambiguity” and transgendered athletes. In contrast to the vagueness with which gender ambiguity is defined and the procedure for athletes to return to competition is outlined, the policy clearly outlines the conditions for allowing transgendered athletes to participate in women’s events. Those who undergo “sex reassignment before puberty” are allowed to participate under their assigned gender without any further medical procedures, while those who transition post puberty can compete provided “[h]ormonal 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” (IAAF, 2006, p. 4). This distinction is justified on the basis that “the athlete should not be enjoying the benefits of natural testosterone predominance normally seen in a male” (IAAF, 2006, p. 2). However, at the time that this policy was drafted, there were no rigorous studies that had been conducted about the impact of testosterone in the athletic performance of transgendered female athletes, so this claim about the causal link between testosterone and athletic performance relies on shared cultural assumptions about the efficacy of testosterone in enhancing athletic performance to be accepted as ‘true’.

While these recommendations are presented as a progressive measure to enable trans\* athletes to participate in sport, they only consider transgender female athletes who have undergone reconstructive surgeries. Not all transgendered people choose to undergo complex medical procedures to transition, and such procedures are not only prohibitively expensive, but also accessible only to athletes whose countries provide legal sanction and recognition for such procedures. Only a small portion of athletes would qualify for participation under these

regulations, when all the legal, financial and medical hurdles in the path for accessing the requisite medical procedures to make them eligible to compete is considered.

The policy document also goes on to indicate that questions pertaining to the participation of transgendered athletes have acquired greater urgency:

With the arrival of improved methods for the identification of transsexual individuals and improved possibilities to rectify any sexual ambiguity, the number of individuals undergoing sex reassignment has increased. (IAAF, 2006, p. 4).

The increase in sex reassignment surgeries, attributed here almost mechanically to advancements in medical technology, is presented as a challenge to modern sport. The phrasing “cases of sex reassignment” focuses on the procedure itself, subtly dehumanising the people undergoing the procedure. Further, the reference to “identification of transsexual individuals” (IAAF, 2006, p. 4) echoes the cultural stereotyping of transgender people as “evil deceivers” who hide their ‘real’ or ‘true’ gender (Bettcher, 2007). While acknowledging the problems faced by transgendered people in general, and their problems with participation in sport in particular, trans\* athletes “for whom the participation in sport is important” are presented as rare and anomalous, rather than as legitimate athletes whose needs have to be considered by the governing bodies. The problems faced by trans\* athletes are framed as personal issues rather than as a structural problem with the way sporting contests are organised. This absolves the governing bodies of any responsibility for changing the existing systems to accommodate trans\* athletes.

With respect to deciding on the eligibility of trans\* female athletes, the Statement of the Stockholm consensus on sex reassignment in sports observes that “[i]n recent years it has become apparent” that there are limitations to approaching this on a case-by-case basis and



hence there is a need for standard procedures and the “IOC has been asked to explain what such an evaluation should include” (IAAF, 2006, p. 4). The use of passive voice in these statements leaves unstated who has scrutinised and pointed out inadequacies in the IOC’s approach; it also does not provide any details regarding the identified insufficiencies in IOC’s approach. While the last paragraph lists the key points that the expert panel debated on, in relation to the participation of transgender athletes, the final resolution that they arrived at is not explicitly mentioned in the document. I argue that this is in not only in keeping with the general vagueness in the policy document about what constitutes a “gender issue”, but also an assertion and legitimisation of medical authority on this issue as the as the conclusions arrived at by medical experts is not seen as requiring any further explanation.

First in the series of policies for the targeted testing of female athletes in cases of ‘suspicion’, the 2006 policy presents the problematics within which the 2011 and 2018 policies also function. The 2006 policy defines ‘gender issues’ in vague terms, but subsequent policies define this issue with greater specificity and provide more details on the medical tests to be conducted on athletes and the recommended medical treatments to ensure these athletes are ‘normalised’ and can compete in the women’s category. While the eligibility of athletes in “cases of gender ambiguity” and in cases of “sex reassignment” are both addressed in this policy, subsequently, the IAAF/WA adopted separate policies to address the participation of intersex\* female athletes and transgendered athletes. However, all these policies present the question of determining eligibility as primarily a medical issue and draw on medical knowledge and foreground medical expertise when justifying the testing procedures and consequent medical interventions.

## **5.2. 2011 Hyperandrogenism Policy**

Much more detailed than the 2006 policy document, the 2011 hyperandrogenism policy has 8 chapters, the first of which explicitly sets out the underlying principles that inform the policy. The second chapter deals with the initial procedures to be followed in handling a “case”. The third chapter of the policy document delineates specific steps to ensure the confidentiality of sensitive medical data. This is in addition to strict instructions for the IAAF Medical Officer, Medical Panel and the laboratories involved to maintain secrecy when working with an athlete’s medical data. Chapters 4, 5, and 6 provide details on the initial medical assessments to be conducted and the subsequent medical ‘management’ of ‘cases’. The technicalities of arriving at and communicating the IAAF/WA’s final decision to the athlete are outlined in the penultimate chapter with the final chapter being a brief note on when the regulations will come into force. In contrast to the vagueness of the 2006 iteration of the regulations, this policy maintains a keen focus on “managing” the ‘cases’, fleshing out the medical tests and analyses to be conducted on suspected “athletes with hyperandrogenism”. However, it remains silent on the medical interventions that the athletes might be required to undergo, leaving this to the discretion of the medical panel and the IAAF/WA’s medical officer.

### ***5.2.1. Defining Hyperandrogenism***

The 2011 hyperandrogenism policy begins by appealing to custom and historical continuity to defend the need for separate competition categories for men and women. This separation is initially framed in positive terms for women as a measure meant “to recognize [women’s] specific physical aptitude and performance” (IAAF, 2011, p. 1), but then the observed differences between the two groups are attributed to “higher levels of androgenic hormones in males resulting in increased strength and muscle development”, which frames men as better athletes (IAAF, 2011, p. 1). Extrapolating from this observation regarding the connection between androgens and athletic performance, female athletes whose bodies

produce excess androgens – women with hyperandrogenism – are identified as threats to fairness in women’s sport. Women with testosterone deemed to be in the “male range”, causing “material androgenising effects” are said to have an “uncommon athletic capacity in relation to their fellow female competitors” which makes competition between them unfair (IAAF, 2011, p. 1). This policy applies to all athletes seeking to compete in international athletics events and is also meant to act as a guideline for national federations to adopt equivalent policies of their own; given this broad scope of the regulations, practically all athletes wishing to compete in women’s athletics are brought under its ambit, either directly or indirectly.

With respect to the use of medical knowledge, the key knowledge claims on which the entire policy hinges is phrased here in the passive voice:

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. It is also known from experience that there are rare cases of young females competing in Athletics today who are affected by hyperandrogenism (IAAF, 2011, p. 1)

This effaces the knower/knowing subject while foregrounding the knowledge claim, thereby implying consensus and effacing any dissent, challenge or differences of opinions on the matter. Further, the policy document itself provides no evidence or specific reference to existing evidence to substantiate these claims. The implicit claim that “increased strength and muscle development” (IAAF, 2011, p. 1) will necessarily translate into better athletic performance frames biological factors as the ultimate determinants of athletic performance. Smoothing over the complexities and contradictions within the conception of physical strength and its complicated, variegated relationship to athletic performance, sporting

excellence is presented as ‘natural’, and an outcome of the functioning of androgenic hormones.

Having established its focus on “young females” “who are affected by hyperandrogenism”, the policy distances itself from previous iterations of the ‘gender verification’ regulations, by explicitly disavowing “all reference to the terminology ‘gender verification’ and ‘gender policy’” (IAAF, 2011, pp. 1–2). However, the policy renders such female athletes suspect by noting that they “display masculine traits” and “have an uncommon athletic capacity”; this implicitly associates masculinity with athleticism while also marking hyperandrogenic female athletes as “uncommon” and separating them from their “fellow female competitors” (IAAF, 2011, p. 2). This separation is sustained throughout the text in subtle and overt ways to problematise “athletes with hyperandrogenism” and justify the surveillance and medical interventions used to normalise them. Further, the allusion to the mental health of the athletes in the observation that they “may be psychologically vulnerable” subtly pathologises and discredits these athletes (IAAF, 2011, p. 2). Female athletes with hyperandrogenism are thus marked out as different – simultaneously threatening and threatened – and in need of medical normalisation.

While this is the first IAAF/WA policy to officially define the ‘problem’ as “females with hyperandrogenism”, the diagnosis of hyperandrogenism is applied retroactively to other athletes whose gender was considered suspicious: the policy notes that “their emergence from time to time at the highest level of women’s competition in Athletics has proved to be controversial” (IAAF, 2011, p. 1). This presents “hyperandrogenism” among female athletes as a long-standing ‘problem’ even if it has only recently been defined as such. Further, female athletes who might be “affected by hyperandrogenism” are infantilised through

repeated reference to their age (“young”) and depicted as passive, unknowing victims of a medical condition which if “undiagnosed or neglected, can pose a risk to health” (IAAF, 2011, p. 1). One of the listed aims of the 2011 hyperandrogenism policy is “[t]he early prevention of problems associated with hyperandrogenism” (IAAF, 2011, p. 1). The IAAF/WA, thus, astutely casts itself in a paternal position as the protector of these hyperandrogenic athletes who are constituted as threats to other female athletes and to themselves. Additionally, if athletes might be ‘undiagnosed’, then every female athlete is potentially suspect, which implicitly justifies surveillance mechanisms aimed at diagnosing the condition which might otherwise continue to remain undiagnosed.

Unlike the 2006 policy, this policy does not explicitly include measures for raising complaints against a fellow athlete who is deemed ‘suspicious’. Rather, provisions are made for athletes to personally approach the IAAF/WA for an evaluation if they suspect that they may be hyperandrogenic. This expectation placed on athletes to report themselves conceals an implicit accusation: those who do not report themselves can also be perceived to be wilfully hiding a secret about their sex/gender. Apart from the athlete herself, The IAAF/WA Medical Manager is also invested with the authority to initiate confidential investigations, if there are reasonable grounds to do so. Such reasonable grounds include – but are not limited to – results from pre-participation or other routine medical examinations, report or results from routine anti-doping tests which indicate abnormal steroid profile, and any information that the IAAF/WA medical delegate or other medical officers receive at a competition.

There are no explicit criteria listed for evaluating information, which enables the Medical Manager to make discretionary calls regarding conducting medical tests with little accountability. While this section, seemingly, sets limits to the authority invested in the

medical officer, it, in fact, expands the scope for medical surveillance of athletes. Further, the Medical Officer – which is an official position that could be occupied by anyone – is repeatedly referred to as ‘he’ throughout the document. The use of male pronoun for the Medical Officer exposes the underlying gendered nature of the evaluative gaze cast on the (always already suspicious) female athletic body and also consolidates the association between masculinity and medical knowledge which takes as its object of study the intersex\* female body.

### ***5.2.2 Testing for Masculinity: Hormonal Screening and Virilisation Checks***

The policy outlines the mechanisms for constituting an independent Expert Medical Panel to investigate and manage the cases that are brought to the notice of IAAF/WA. The members of the panel are appointed to office for a period of four years, and they may “exchange views on the athlete’s case” and also seek assistance from other specialists to review an “athlete’s case” if necessary (IAAF, 2011, p. 4). All communication between members of the panel and other experts is bound by expectations of confidentiality. The medical assessment of cases is staggered into three levels: Initial clinical examination is followed by a preliminary endocrine assessment and then a full examination and diagnosis if needed. The results of the clinical and endocrine assessments will be reviewed by the IAAF/WA medical manager and if necessary, the results can be referred for further analysis to an expert medical panel comprised of a chairman and at least two experts drawn from the IAAF/WA’s list of experts.

Detailed instructions to clinicians for conducting the screening and endocrinal assessments are provided in the appendices included with the policy document. When diagnosing hyperandrogenism in this context, clinical examinations for signs of virilisation are combined with laboratory tests to assess underlying hormone levels. Initial assessment involves the

collection of detailed clinical history and thorough physical examination of the athlete, including scoring them for hirsutism – excessive hair growth – using the modified Ferriman-Gallwey scale and charting breast development along the Tanner-Whitehouse Scale. These physical examinations for clinical signs of ‘virilisation’ are guided by normative expectations of appropriate levels of hair growth in women and expected signs of secondary sexual development. Further, the scoring in relation to these norms is susceptible to interobserver variations and cultural expectations about appropriate levels of hair growth in women, which has led to suggestions that these norms be made population-specific rather than universal (Barth et al., 2010; Api et al., 2009). However, the IAAF/WA policy does not consider these nuances when subjecting athletes to clinical assessments. In detailing the procedure for collecting blood samples for testing, the variation in hormone levels in response to various physiological factors and medication is acknowledged. Nevertheless, such fluctuations are treated as errors by these diagnostic mechanisms which posit a stable, measurable level of the hormone which is ‘normal’ for each body.

When outlining the steps involved in clinical analysis, the IAAF/WA medical manager is foregrounded as the active agent performing the medical examinations while the athlete is effaced, except for oblique references when mentioning the collection of samples, exemplified in the statement that the “IAAF medical manager may arrange for the collection and analysis” of more urine and blood sample from the athletes (IAAF, 2011, p. 7). The use of the auxiliary verb “may” connotes both possibility and permission – a conjunction that permits the medical officer and the medical panel to exercise their discretion while carrying out their duties, implicitly supported by the IAAF/WA. Separate protocols are listed to manage the testing of minor athletes, which while addressing an important need also reinforces the idea that these athletes are ‘young’ and vulnerable, and hence in need of help

and protection. The requirement for the athlete or their parents to “designate a physician to be the recipient of the results of the initial clinical examination on her behalf” distances the athlete from the proceedings and gives greater importance to the medical professionals involved (IAAF, 2011, p. 6). Further, a note is included as a caveat which confirms that while the regulation provides the overarching framework, the medical panel can still make discretionary calls regarding further testing depending on “the circumstances of the case” (IAAF, 2011, p. 7). Here, the attempt to institute standard procedures comes up against the need to account for contingencies and the complexities of individual cases and the policy relies on medical expertise to resolve this tension.

### ***5.2.3 Determining Eligibility to Compete***

The 2011 hyperandrogenism policy explicitly states that the athlete has to be carefully informed of all the procedures, but nevertheless they “shall normally be required” to submit to the tests and collection of medical data, failing which they will be disqualified (IAAF, 2011, p. 5). Athletes are also “requir[ed] to submit” to the tests requested by the medical panel, the results of which will be “transmitted confidentially” to the physician designated by the athlete/athlete’s parents (IAAF, 2011, p. 9). The use of passive voice and intransitive verb ‘transmit’ obscures the agents behind these actions. The laboratory in which the testing of the samples takes place is nominalised – “the laboratory shall analyze”, “the analyzing lab” – thereby effacing the people involved in analysing the data (IAAF, 2011, p. 7). This empties the testing procedures of human actors, giving these procedures the appearance of an inevitable mechanical process that proceeds of its own accord. In this seemingly ineluctable chain of events, athletes figure not as agents but as mere sources of ‘samples’ that are tested and analysed. Further, the awkward yoking together of compulsion and choice in the statement such as “athlete shall consent to the disclosure of her medical information” makes



manifest the underlying contradictions and tensions between the athlete's agency and the control exerted by the IAAF/WA (IAAF, 2011, p. 3). The policy attempts to obscure this tension by presenting the athlete's decision to undergo medical examinations and subsequent medical interventions as the product of an informed choice.

The athlete shall be deemed eligible to compete in women's events if their androgen levels – measured on the basis of total testosterone in the serum – is below the “normal male range”, i.e., below 10 nmol/litre (IAAF, 2011, p. 11). Section 6.5 of the policy states that an athlete's eligibility is contingent upon them having androgens below the male range or being insensitive to the excess androgens such that they derive “no competitive advantage from having androgens in the normal male range” – fixed at  $\geq 10$  nmol/L (IAAF, 2011, p. 12). In the absence of a clear, unequivocal consensus on among medical practitioners and researchers on this matter (Lazarou, Reyes-Vallejo & Morgentaler, 2006), the normal range is fixed by the IAAF/WA in its capacity as the regulatory body, even though this is not explicitly acknowledged in the policy. Exceptions are made in cases where the athlete has serum testosterone above this level but is understood to derive no competitive advantages from it owing to androgen resistance – assessed by measuring signs of virilisation. While presenting the terms under which a female athlete with hyperandrogenism can return to competition, the document subtly hints that they do not belong in sport by noting that they have to undergo medical interventions “*if the athlete states an intention to continue competing in Athletics*” [emphasis added] (IAAF, 2011, p. 9).

Extensive attention is paid in this section to the appearance of the athletes as the “potentially relevant information” for making the decision include “clinical signs of virilization” such as “(physical appearance, deepness of voice, body hair etc), genital characteristics (clitoral

hypertrophy)” (IAAF, 2011, p. 11). When stripped of the trappings of sophisticated medical language, the obsession with the physical appearance of athletes betrays the IAAF/WA’s continued reliance on stereotypical expectations of femininity. Further, when reviewing whether an athlete who has been tested can compete or not, there is repeated reference to the ‘athlete’s case’. Such a calculated use of legal language puts the athlete on trial and astutely shifts the burden of proof: rather than the IAAF/WA having to prove that an athlete is ineligible, the athlete now has to demonstrate her eligibility.

Under this policy, if an athlete does not meet the criteria to participate in women’s events, they are given the opportunity to undergo medical interventions as recommended by the Expert Medical Panel and satisfy the eligibility criteria to compete in women’s events. The exact nature of the suggested interventions is not made clear in the document; it is left to the discretion of the medical panel to recommend interventions based on their analysis of the athlete’s medical data. Given the focus on addressing ‘hyperandrogenism’, it can be inferred that the treatment will be aimed at reducing the level of endogenous testosterone in the athlete. Following these interventions, the athlete has to submit to near-constant “return to competition monitoring”, and assent to being tested at random to ensure that they are still compliant with the regulations (IAAF, 2011, p. 13). Further, “if an athlete refuses to be tested by the IAAF/WA for Competition Monitoring purposes or if, when tested, is found not to be compliant with the conditions determined by the Expert Medical Panel, the athlete shall not be eligible to compete in Athletics for a minimum period of 2 weeks and until the Expert Medical Panel is satisfied that she is so compliant” (IAAF, 2011, p. 14).

By presenting ‘hyperandrogenism’ as a medical issue, this policy presents the suggested interventions as necessary and therapeutic, thereby effacing the exercise of power inherent in

these medical interventions. Rather than merely disqualifying athletes, the focus of this policy is on medically normalising them and enabling them to return to competition. While this approach seems more inclusive, conversely, it also implies that if an athlete is disqualified, then it is due to their unwillingness to undergo medical ‘treatment’ or a lapse on their part to follow the recommended treatment. By presenting medical interventions as a choice, the onus is placed on the athletes to comply with the necessary conditions to ensure that they are eligible to compete in women’s category. While this problematises intersex\* female athletes, it renders unproblematic the overarching structure of competitive sport which necessitates compulsory sex-segregation and concomitantly, requires the delineation of eligibility criteria for entry into women’s category.

### **5.3. 2018 DSD Policy: Regulating Athletes with Differences in Sexual Development**

The 2018 DSD policy shifts focus from hyperandrogenism to differences in sexual development more broadly. A closer textual analysis of the 2018 DSD policy document shows that in contrast to the tentativeness seen in the previous iterations of the regulations, the IAAF/WA asserts its position more authoritatively throughout the document, expanding the reach of the regulations and limiting the potential for legal challenges against them. The governing body draws on both medical discourse and legal mechanisms to consolidate its stance while continuing to appeal to the need to uphold ‘fairness/fair play’ in sporting competitions. The DSD regulations provide clear references to academic literature to justify the knowledge claims about the performance-enhancing effects of androgens, while also engaging more explicitly with the legal concerns that may arise in the course of application of the Regulations. The policy constructs intersexed female athletes or athletes with Differences of Sexual development (DSDs) as the problem and sustains the dichotomy between legitimate female athletes and intersex\* female athletes, marking out the latter as “relevant athlete” –

the term is used 35 times in the document. Even as the policy document acknowledges the complexity of assigning sex and gestures towards the possibility of instituting intersex categories in sport, it still strives to maintain separate ‘male’ and ‘female’ categories in the interest of ensuring fairness.

### ***5.3.1. Defining Differences in Sexual Development***

When introducing the DSD regulations, the IAAF/WA foregrounds and asserts its role in the formulation and enforcement of these regulations more firmly, stating that “[t]he IAAF Council has approved the issue of these Regulations ...” (IAAF, 2018, p.1). The DSD regulations do not reference the history of gender verification tests or appeal to convention to support the justifications provided for these regulations. Rather, the key stated aim is to “ensure fair and meaningful competition ... in athletics,” and “ensure that success is determined by talent, dedication, hard work, and the other values and characteristics that the sport embodies and celebrates” (p.1). It is implied here that the success achieved by athletes with DSDs is not attributable to dedication and hard work, but rather to ‘unfair’ advantages that they possess.

The IAAF/WA recognises the inherent instability of “biological sex” as a cohesive category as “distinct aspects of chromosomal, gonadal, hormonal and phenotypic sex” might not all be aligned in some cases (IAAF, 2018, p.1). The Federation also acknowledges that the legal classification of sex in several countries has also moved away from a binary framework. However, it still attempts to maintain the coherence of sex/gender categories in sport by appealing to the need to ensure fairness. Using uncharacteristically emotive language, the policy frames sports as a celebration of – “talent, dedication and hard work”, and appeals to the “sacrifices” that athletes make to excel in their chosen sport, excellence that can “inspire

new generations to join the sport and aspire to the same excellence” (IAAF, 2018, p.1). The regulation document implicitly speaks on behalf of female athletes when stating that “competition between male and female athletes would not be fair and meaningful, and would risk discouraging women from participation in the sport” (IAAF, 2018, p.1). The policy also notes that athletes might feel “discourage[d]” if they see no opportunity to succeed, despite their hard work. This concern with potentially discouraging athletes, however, does not extend to a consideration of the possibility that requiring excessive medical procedures might discourage female athletes with DSDs. With its sentimental overtones and repeated appeals to the value of ‘fair and meaningful’ competition in sport, this introduction explicitly frames fairness as the central value of sport worth defending and celebrating. By focusing attention on fairness and the attempt to create a ‘level playing field’ and treating age categories as analogous to gender categories, the IAAF/WA de-emphasises and masks the omnirelevance of gender as a value-laden differentiation which operates even within specific age categories.

This regulation clearly defines athletes with differences in sex development as the targets of measures meant to ensure fairness in women’s sport. The document lists a tri-partite criteria for identifying “relevant athletes”, as listed below:

- a. she has one of the following DSDs:
  - i.  $5\alpha$ -reductase type 2 deficiency;
  - ii. partial androgen insensitivity syndrome (PAIS);
  - iii.  $17\beta$ -hydroxysteroid dehydrogenase type 3 ( $17\beta$ -HSD3) deficiency;
  - iv. ovotesticular DSD; or
  - v. any other genetic disorder involving disordered gonadal steroidogenesis; and
- b. as a result, she has circulating testosterone levels in blood of five (5) nmol/L or above; and

c. she has sufficient androgen sensitivity for those levels of testosterone to have a material androgenising effect. (IAAF, 2018, p.3).

Further, the restrictions only apply “to participation by a Relevant Athlete in the female classification in a Restricted Event at an International Competition” and this narrow scope of application is repeatedly iterated throughout the document. “Relevant athletes” are defined on the basis of DSDs and excess testosterone is presented as a subsidiary issue with further clarification that elevated endogenous testosterone levels alone – in the absence of any other genetic issues related to DSD – will not throw into question the athlete’s eligibility to compete in sport. The upper limit for testosterone is set at 5 nmol/litre which is half of the limit fixed in the 2011 iteration of the policy. While the policy document strives to de-emphasise appearances and focus instead on the medical details of DSDs, the eventual reference to the “material androgenising effect” of testosterone not only functions as a shorthand for linking athletic excellence with masculinity, it betrays concerns regarding the feminine appearance of the athletes.

To support the assertions that higher levels of testosterone lead to enhanced physical strength in women with DSDs such that competition between ‘normal’ female athletes and those with DSDs would be unfair, the policy document cites peer-reviewed journal articles. The policy claims that:

There is a broad medical and scientific consensus, supported by peer-reviewed data and evidence from the field, that the high levels of endogenous testosterone circulating in athletes with certain DSDs can significantly enhance their sporting performance. (IAAF, 2018, p.2).

However, a closer examination of these articles presents a more complex picture of the medical opinions on this matter. The articles listed by the IAAF/WA provide a broad overview of the discussion surrounding medical justification for compulsory sex-segregation in sport and the need for regulating entry into women's sport. Of the listed articles, only Healy et. al. (2016) and Bermon and Garnier (2017) provide substantive empirical data. Based on the hormone profiles of 454 male and 239 female athletes, Healy et. al., noted that "16.5% of men had low testosterone levels, whereas 13.7% of women had high levels with complete overlap between the sexes" (Healy et al., 2014, p. 294). Given this overlap in testosterone, the paper posits that the differences in the lean body mass rather than differences in testosterone better explains observed performance differences between men and women (Healy et al., 2014). This contradicts the IAAF/WA's assertion of distinct 'male' and 'female' range of testosterone, and also questions the role of testosterone in determining athletic outcomes.

The DSD regulations are primarily based on the conclusions drawn by Bermon & Garnier in their 2017 which study measured androgen concentrations of male and female athletes from their blood samples collected during the 2011 and 2013 IAAF World Championships. This study found that "women with the highest fT tertile performed significantly better in 400 m, 400 m hurdles, 800 m, hammer throw and pole vault", which led Bermon and Garnier (2017) to conclude that "[f]emale athletes with high fT levels have a significant competitive advantage over those with low fT in 400 m, 400 m hurdles, 800 m, hammer throw, and pole vault" (IAAF, 2018, p. 1) However, this study was funded by the IAAF/WA and conducted by researchers affiliated with the IAAF/WA, which has led to criticisms of conflict of interest (Pielke Jr., Tucker & Boye, 2019).

The other articles cited in the policy document are more accurately characterised as position papers which provide expert opinion regarding the impact of testosterone on athletic performance, based on inferences made from research in the area. These papers point to the need for more specific research on professional athletes that would support the claim that the DSD regulations rest on: that naturally high endogenous testosterone levels in female athletes with DSDs gives them unfair athletic advantages. Allen (2016), also makes the point that while research data can either confirm or disprove the correlation between elevated testosterone and enhanced athletic performance, deciding whether such performance advantage should be considered unfair is a matter for ethical consideration, and cannot be resolved merely on the basis of research data. Therefore, though the IAAF/WA (2018) claims “medical and scientific consensus” in support of its regulations, the actual picture is much more complicated, and the policy document masks these complexities and disagreements (p. 2). The assertions about the link between testosterone and athletic performance still derive their truth value on the basis of the current discourse on testosterone, which frames it as a male hormone that enhances physical strength which translates to improved athletic performance – the basis for male athletic superiority.

### ***5.3.2. Testing Procedures***

Similar to the 2006 policy, here the onus is again placed on the athlete to report themselves if they think that they might be a “relevant” athlete. While this is seemingly intended to reduce the scrutiny and testing of athletes based on appearance, there is an implicit moral charge: if a ‘relevant’ athlete does not report themselves, then they are not only deviant but also deemed guilty of veiling the truth about themselves. While “[o]nly the IAAF Medical Manager may initiate an investigation” (IAAF, 2018, p. 5), the manager can act on the basis of information obtained from tests conducted on the samples provided for anti-doping tests. Thus the



medical surveillance of athletes is centralised and unified by this linking of doping controls and eligibility checks; female athletes are expected to consent to their blood and urine samples submitted for anti-doping tests to also be used for testing endogenous testosterone levels. Such expectation and/or presumption of consent are inherently problematic as it does not meet the IAAF/WA's own explicitly stated standard of obtaining informed consent from the athlete.

Those providing information about athletes are required to act in good faith, and “[n]o stigmatisation or improper discrimination on grounds of sex or gender identity will be tolerated” (IAAF, 2018, p.5). However, the IAAF/WA's assurances in this regard are phrased in the passive voice leaving no scope to hold anyone directly responsible, and there is no clarity on how those who act in bad faith will be held to account for their actions rendering these ostensible protections practically ineffective. In the same vein, while the IAAF/WA assures the athletes that investigations and assessments will be completed “as quickly as is reasonably practicable” nobody can be held liable for any losses suffered by the athlete due to delays in completing the assessments (IAAF, 2018, p.5).

In recognition of the challenges in communication engendered by the gap in knowledge and expertise between athletes and medical experts, the regulations provide for the athlete to appoint an ombudsman who will help them navigate the medical examinations and the procedures required by the IAAF/WA. However, this provision also conversely strengthens the framing of hyperandrogenism as a technical medical matter to be resolved by experts, where the athlete is reduced to a passive body to be normalised, whose active participation in the whole process is limited to consenting to medical tests and interventions. Further, most of the specialist centres reference centres – 5 out of 7 – where further assessments will be

conducted are located in Europe, United States of America and Australia. Given that all the athletes who have been tested under these regulations are women of colour from South Asia and Africa, this throws into sharp relief that the racial and gender inequities in the testing process; the surveilling medical gaze, which is presented as neutral and scientific, is in fact raced (white) and gendered (male).

### ***5.3.3. Applicability of the Regulations***

All athletes wishing to participate in the female classification in the restricted events are required to consent to these regulations and cooperate with the IAAF/WA Medical Manager and Expert Panel to provide requisite medical information and undergo any medical examinations requested in pursuance of this policy. Additionally, athletes are also expected to consent to raise any challenges against the application of the regulation in the CAS, and not “bring any proceedings in any court or other forum that are inconsistent with that clause” (IAAF, 2018, p.9), which reduces the options that athletes have to challenge their legality. The regulations are also applicable retroactively in that if an athlete is determined to have competed in an event while their blood testosterone was higher than the stipulated level, they can be stripped of “any medals, ranking points, prize money, or other rewards awarded to the athlete based on those results” (IAAF, 2018, p. 8). These regulations render all female athletes who compete in the restricted events potentially suspect, thereby enabling their continued medicalised surveillance that they are expected to consent to, or are presumed to have already consented to.

The regulations then set up a distinction between force and consent, stating that “no athlete will be forced to undergo any assessment” (IAAF, 2018, p.4). However, an athlete’s ability to participate in the women’s category in restricted events is made conditional upon them

acquiescing to the regulations, which makes the distinction between “informed consent” and coercion tenuous and hard to sustain. The notion of consent here functions on the basis of a proprietary understanding of the relationship of the ‘self’ to the body where the person can sign away certain rights to their body in a singular act of exchange where both parties, presumably, meet on equal footing (Anderson, 2022).

This conception of consent does not adequately account for the temporally unfolding nature of exercise of power. Further, presumptions of equality are deeply flawed in this context as individual athletes are dealing with a governing institution which holds the authority to define the legitimate meaning of sport, enact regulations to defend such and disqualify athletes on the basis of these regulations. The gulf between individual athletes and the IAAF/WA only widens when we also account for the difference in the knowledge between the athletes and the doctors appointed by the IAAF/WA, especially since athletes might not understand the future medical and social impact of undergoing medical tests and treatments (Wiesemann, 2011; Butler, 2011). Given these inequities, the distinction made here between consent and force is untenable, and it only allows the IAAF/WA to further its fiction of meeting athletes on an equal footing.

#### ***5.3.4. Suggested Medical Interventions***

The DSD Regulations are framed positively as a means “to encourage and provide a clear path to participation in the sport for all”, and “to facilitate the participation in the sport of athletes with DSDs” (IAAF, 2018, p. 1). While DSD is expanded here as differences of sex development rather than disorders of sex development, which while presenting a more neutral outlook still foregrounds the ‘norm’ for sexual development and problematises those who do not approximate this. To be eligible to compete in the women’s events, the “relevant athlete”

must be recognised in law as a “either as female or as intersex (or equivalent)” and she must reduce her testosterone to below 5 nmol/litre for “a continuous period of at least six months (e.g., by use of hormonal contraceptives)” and maintain it at below this level thereafter (IAAF, 2018, p.3). Vehemently disavowing the need for any cosmetic procedures, the document states that “surgical anatomical changes are not required in any circumstances” (IAAF, 2018, p.4). While the costs for medical testing under the regulations will be borne by the IAAF/WA, the athlete is expected to bear the costs of any requisite treatment and also bear the “costs of providing the evidence of continuing satisfaction of the Eligibility Conditions requested by the IAAF Medical Manager” (IAAF, 2018, p. 8). The cost of treatment and ongoing examinations could be prohibitively expensive for athletes who might find themselves unable to participate owing to these expenses.

The human body here is understood as potentially infinitely malleable and manipulable given that – at least in principle – intersexed bodies can be made to fit the norms of ‘female’ness through medical interventions. Since under these regulations all athletes can be – at least in principle – eligible to compete, inordinate delays in testing might be used as a means of holding athletes back, especially given that nobody would be held liable for such delays. Further, as the normalising medical procedures are presented as therapeutic and a desirable opportunity for athletes to return to competition, the decision to undergo treatment in accordance with these Regulations is turned into a moral choice on the part of the “relevant athlete”, which makes it more difficult to contest these requirements.

### ***5.3.5. Considering Legal implications***

The DSD regulations are more cognisant of broader implications and potential legal challenges, evidenced in the clear and specific definition of key terms, detailed enunciation of

the processes involved in enforcing the regulations, and the delineation of the conditions under which and the means through which athletes can appeal decisions made in pursuance of these regulations. While the 2011 hyperandrogenism policy included the suggestion that national athletics federations develop equivalent policies of their own, the DSD Regulations are meant to “operate globally” (IAAF, 2018, p.2); all cases, even those involving athletes who have not yet competed in international events “will be dealt with by the IAAF Health and Science Department” rather than the athlete’s National Federation or any other federation, even if the athlete has not yet competed in an international event (IAAF, 2018, p.2). In requiring that the policy “be interpreted and applied not by reference to national or local laws, but rather as an independent and autonomous text”, the IAAF/WA pre-empts any resistance to the enforcement of the regulations by member federations on account of their national laws (IAAF, 2018, p.2). This draws on and bolsters the conception of sport as an exceptional field where regular legal and political considerations are superseded by the imperative to ensure ‘fairness’ or fair competition, even if it is achieved at the cost of the rights of intersex\* female athletes.

The 2018 DSD policy also includes a separate “Dispute Resolution” chapter which outlines procedures to ensure compliance with the regulations by various national federations and other parties who may be involved in the execution of the policy. Here, the IAAF/WA explicitly connects the DSD policy with its constitution and Integrity Code of Conduct to develop a well-integrated cohesive framework of rules under which National Federations and individual athletes will be governed. Potential breaches of the DSD policy are framed as an internal matter liable for “prosecution before the IAAF Disciplinary Tribunal in accordance with the IAAF Disciplinary Tribunal Rules” (IAAF, 2018, p. 9). Any disputes between “an affected athlete” and the IAAF/WA pertaining to the “validity, legality and/or proper

interpretation or application of the Regulations” or any appeal against a decision made under these regulations will be under the exclusive jurisdiction of the Court of Arbitration for Sport (IAAF, 2018, p. 10).

In any potential disputes that might arise, “the law governing the dispute or appeal will be the IAAF Constitution and the IAAF Rules and Regulations (including these [the DSD] Regulations), with the laws of Monaco applying subsidiarily, and in the case of any conflict between any of the above instruments and the CAS Code currently in force, the above instruments will take precedence” (IAAF, 2018, p. 10). Not only are the athletes effectively forced into arbitration with CAS, but the CAS’s role is also reduced here to serving an executive function, which puts the authority of the IAAF/WA to formulate and enforce these regulations outside the purview of the legal oversight of CAS. The clarification that the proceedings in CAS will be conducted in English (“unless the parties agree otherwise”) addresses the crucial need for standardisation, but it is also a reflection of Anglo-centrism and can disadvantage athletes from non-anglophone countries (IAAF, 2018, p. 10). If required to manage the court interactions in English, athletes who are not proficient in the language will be further distanced from the procedures with experts – in this case lawyers – taking the centre-stage. Additionally, athletes are also required to surrender the right to file further appeals against decisions made by CAS, “insofar as such waiver may be validly made” (p.10). This limits the options that athletes have to take legal recourse against the enforcement of these regulations.

#### **5.4. Intersex\* Female Athletes as ‘Cases’**

The 2006, 2011 and 2018 policies institute a divide between ‘normal’ female athletes and intersex\* female athletes who are considered a threat to fair competition in women’s athletics

events. While the 2006 policy only vaguely refers to “gender issues”, the 2011 policy identifies hyperandrogenism in women – testosterone above 10nmol/litre in conjunction with XY chromosomes – as the problem and 2018 DSD policy identifies a list of DSDs as problematic. In addition to this divide instituted on the basis of certain biomedical criteria, intersex\* female athletes are also referred to as “cases” or “relevant athletes” to consolidate their separation. The subtle ways in which intersex\* female athletes are dehumanised and separated from legitimate female athletes through such naming contributes to the framing of these athletes as threats to women’s sport and therefore undeserving of the same rights and protections as ‘normal’ female athletes.

The 2006 policy uses the words “problems” “case” and “anomaly” equivocally such that it could refer to both supposed gender issues and to intersex\* female athletes themselves. This is evidenced in section on “Process for Handling *Cases* of Gender Ambiguity”, which also notes that “the case is brought to the attention of the relevant medical authority” (IAAF, 2006, p. 3, emphasis mine). Such equivocation that enables slippage in meaning is seen throughout the document where these athletes are framed as medical and legal problems to be solved. Similar language use is employed in the 2011 hyperandrogenism policy, where “cases” is employed equivocally to refer to the condition of hyperandrogenism and to the athletes who have hyperandrogenism. The policy states that one the key underlying principles for adopting the Hyperandrogenism Regulations is “[t]he early prevention of *problems* associated with hyperandrogenism” (IAAF, 2011, p. 1, emphasis mine). It is unclear if ‘problems’ refers to the supposed medical risks that are associated with hyperandrogenism or to the questions around hyperandrogenic athletes competing with other ‘normal’ female athletes.

In 2011 Policy, athletes with hyperandrogenism are referred to as “complex cases” in the statement that “[t]he evaluation of complex cases on an anonymous basis through the use of a panel of independent international medical experts in the field” (IAAF, 2011, p. 1). This reinforces the framing of these athletes as “problems” or “cases” to be managed by “medical experts”. It is unclear if the ‘problems’ refer to the medical risks mentioned earlier in the document, or to the problem of the hyperandrogenic athlete competing with other athletes and such equivocation adds to the problematisation of hyperandrogenic women. Reducing athletes to medical cases is not only dehumanising, but it also enables the IAAF/WA to foreclose any serious discussions on the ethical aspects of medical testing and normalising procedures employed by the IAAF/WA. Ethical concerns and commitments enter the discussion only in as much as the IAAF/WA states its aim to protect legitimate female athletes and provide them a level playing field. The concern expressed in the policy to avoid the “public exposure of females with hyperandrogenism” implies that the athletes are hiding a secret which if revealed could be damaging. As noted earlier in the analysis of the 2006 policy, such language closely resembles cis-heterosexist accusations against trans\* and non-binary people as deceivers who hide their ‘true’ gender (Bettcher, 2009).

### **5.5. Maintaining Privacy**

As ‘suspected’ athletes are required to undergo extensive medical examinations, these policies also include procedures for handling sensitive medical data. The 2006 policy notes that in cases where further medical examinations of the athlete are deemed necessary, the athlete will be “referred to the investigating authority in confidence” (IAAF, 2006, p. 3). Apart from this reference to confidentiality, there are no further instructions on handling medical data. This lack of clear guidelines around confidentiality posed problems in the actual enforcement of the regulations as highlighted by the experiences of Santhi Soundarajan



and Caster Semenya. When Soundarajan was tested under these regulations, details from her medical tests were divulged to the press, leading to insensitive speculations in the media about her gender. In Caster Semenya's case, it was, supposedly inadvertently, revealed to the media that she had been asked to undergo gender verification tests on the eve of the finals of the 800m run at the 2009 Berlin World Athletics Championships which resulted in widespread speculation in the international media about her gender. To avoid exposing Semenya to interrogation in this regard by reporters, she was escorted away from the stadium after her gold medal win in the final and kept away from attending the post-event press conference.

Compared to the 2006 policy, the 2011 hyperandrogenism policy outlines relatively clear protocols for handling sensitive information. The policy document includes a separate section on the "Confidential management of cases" which delineates procedures meant to ensure that athletes' sensitive medical data is not leaked (IAAF, 2011, p. 3). However, even this section begins by making an injunction to athletes to "consent to the disclosure of her medical information ... [for review] in accordance with [the] Regulations", as a pre-condition for being considered eligible to compete in women's events (IAAF, 2011, p. 3). The policy then states that the IAAF/WA Medical Manager and any others involved in conducting examinations "shall conduct their activities at all times in strict confidence", and if assistance from external experts is to be sought, athlete's medical data "shall be circulated" without identifying the athlete (IAAF, 2011, p. 3-4). The conditional "shall" is employed here equivocally, such that instructions to medical officers conducting the tests and assurance of confidentiality to athletes are tied together in these statements. In the absence of any mention of consequences for breaching confidentiality, none of these assurances are actually enforceable in any meaningful way.

The 2018 DSD policy attempts to remedy some of the lapses from the 2011 version by including clearer instructions on how to ensure privacy of sensitive medical data. While a concern for maintaining confidentiality runs through different sections of the document, Chapter 4 is devoted to ensuring privacy of sensitive medical data. The IAAF/WA Medical Manager is specifically tasked with ensuring that the athlete's medical data is processed "in accordance with applicable data protection and privacy laws" (IAAF, 2018, p. 9). The IAAF/WA is also specifically concerned with communicating with the media strategically as it states that the IAAF/WA will may comment on individual cases only "in response to public comments made by the athlete or the athlete's representatives" (2018, p. 9). This gives the IAAF the opportunity to try and shape the discourse surrounding the testing of specific athletes – if and when such information reaches the media.

I argue that these attempts to maintain confidentiality enables the IAAF/WA to exercise medical control over the athletes in secrecy. Enabled by these expectations of confidentiality, the IAAF/WA can conduct medical examinations of athletes with little oversight, accountability or transparency. While the destruction/anonymisation of data as guaranteed under section 3.6 of the 2018 DSD policy can help maintain privacy for athletes, this also erases the traces of IAAF/WA's enforcement of these regulations. This makes it difficult to identify persistent patterns in IAAF/WA's targeting of particular athletes and limits the possibilities for challenging the IAAF/WA's functioning. Dickinson et al., (2002), observe that efforts in the 1970s and 80s to oppose chromatin testing was hobbled "in part by a lack of information on the frequency of positive results, diagnoses, and follow-up" (p. 1541). This secrecy helps the IAAF/WA more than it does the athletes as it makes it much more difficult to critique the IAAF/WA's lapses or violations of its own policy guidelines. For instance,

information about four young athletes from Africa being subjected to medical procedures, including surgical procedures such as clitoridectomy, remained undisclosed until it was inadvertently revealed in a 2013 paper published by Fénichel, et.al (2013). The publication of this paper initiated broader discussions about IAAF/WA's policies and criticism of medical interventions enforced on intersex\* female athletes enabled by these policies (Karkazis & Jordan-Young, 2018).

In the case of Soundarajan, Semenya and Chand, the revelation that they were subjected to medical examinations resulted in sensationalised media coverage about their gender; Chand and Soundarajan also reported being stigmatised by their fellow athletes which made it difficult for them to continue training (*Chand v. AFI & IAAF*, 2014; *Semenya & ASA v. IAAF*, 2018). However, with time these revelations also engendered broader discussions in the media about the rights of those who do not fit the society's gender norms. While not minimising the harm caused to these athletes by negative publicity, I note that the ensuing discussions have also enabled more public discussions about the rights of intersexed people to not be forced to undergo medical correction. Acknowledging this need for more open discussions in this regard, Chand argued in CAS for her case proceedings – save for her medical records – to be made publicly available. While it is important that athletes' privacy is maintained through the course of enforcing the Regulations, conducting medical tests in secrecy can also enable the IAAF/WA to skirt transparency and accountability for its actions.

## **5.6. Conclusion**

Eligibility regulations do not merely address the threat to fair and meaningful competition in women's category; rather, they constitute women's sport as always already under threat by

athletes with ‘gender anomalies’ and ‘masculine traits’. Pointing to such athletes whose participation has been ‘controversial’ in the past, the policies justify the ongoing need to regulate entry into women’s competitions. Intersexuality is presented as a problem, and particularly so in the context of sport, since biological factors linked to variations in sexual development are also understood to accord intersex\* female athletes with insurmountable, and therefore unfair, advantages over their fellow competitors in the ‘female’ category. Consequently, the policies focus on identifying the sources of such biological advantages and nullifying them through medical procedures so as to ensure “physiological equivalency” between competitors (Gleaves & Lehrbach, 2016, p. 312); ethical considerations about regulating athletic advantages and policing those who express their gender in non-normative ways are reduced to subsidiary issues. Even as the policies are concerned with ensuring ‘fair and meaningful competition’, they do not critically engage with the notion of fairness and implicitly constitute athletic advantages in narrow terms as dependent on individual biological factors; this strengthens the understanding of sporting contests as a test of natural abilities.

These Eligibility Regulations have been shaped by past practices of gender verification and the fears and anxieties that motivated them; the centrality of medical knowledge in the formulation and justification of these regulations can be traced back to the institution of IOC’s medical commissions to manage doping controls and medical checks for femininity. Cultural anxieties around the ‘authenticity’ of athletic performances engendered by increased professionalisation came to be framed as moral and medical problems – to be resolved by medically surveilling and controlling errant athletes (Henne, 2015, pp. 28–55). With medical knowledge positioned as the privileged producer of truths about the sexed body, the Eligibility Regulations are framed primarily on the basis of recommendations made by those

with medical and clinical expertise. Medical experts are foregrounded in the policies which make explicit claims to expert consensus in support of the knowledge-claims made in the regulations (IAAF Regulations, 2006; 2018) and reference prevailing scientific knowledge about the impact of androgens on athletic performance to justify the policies (IAAF Regulations, 2011). Additionally, active voice is strategically employed to highlight role of the IAAF/WA medical officer, medical delegates and empanelled clinicians in interpreting the results of the medical examinations, making appropriate treatment suggestions, and eventually determine eligibility. In contrast, the role of the IAAF/WA in enacting and enforcing these regulations is obscured, which presents the identification and management of intersex\* athletes as a medical rather than an administrative matter. Within the problematics of these policies, individual athletes who do not fit the biomedical norms of femininity are problematised while the institutional structures of modern sport are shielded from scrutiny and therefore remain unproblematised.

These policies draw on medical knowledge about ‘sex’, which operates within the limits of the sex/gender discourse and are underpinned by taken-for-granted truths about sexual differences and their impact on athletic performance. In developing biomedical criteria for establishing femininity and identifying appropriate diagnostic examinations to check that athletes meet these criteria, the policies focus on the level of endogenous testosterone in the body. This draws on and strengthens the construction of testosterone as *the male* hormone – the key determiner of masculine characteristics and of athletic performance (Oudshoorn, 1994; Roberts, 2007); consequently, excessive testosterone in female bodies, in conjunction with XY chromosomes, come to be seen as problematic. Over the course of these three policies, the focus on testosterone is strengthened as the biomedical criteria for femininity is articulated with more specificity. While the 2006 policy only mentions the “influence of

testosterone” in relation to transsexual female athletes and suggests determining eligibility in instances of ‘gender ambiguity’ on a case-by-case basis, the 2011 and 2018 policies standardise the procedures for determining eligibility by setting specific upper limit for endogenous testosterone and recommending that athletes undergo hormone therapy to reduce and maintain their testosterone below this limit for a period of time before being allowed to compete again in women’s category.

These policies have also changed with time in response to shifts in socio-cultural attitudes towards sexual differences, the emergence of new scientific evidence about the impact of testosterone on athletic performance, and specific challenges against the regulations articulated by intersex\* female athletes. However, my analysis shows that the fundamental problematics within which the policies operate have not altered. While the 2006 policy is nominally a ‘gender verification’ policy and makes references to laboratory-based measures for ‘sex determination’, subsequent policies explicitly state that they are not intended to determine the athlete’s sex, but only determine their eligibility to compete as women, but such a distinction is unsustainable and tenuous at best (Dreger, 2018). The guidelines to safeguard athletes’ privacy and obtain informed consent for any medical examinations or procedures offer little meaningful protection to the athletes as they are not enforceable. Further, the 2018 DSD policy, adopted in response to CAS ruling in Dutee Chand’s case, is more attentive to the legal implications of the policy and more explicitly draws on legal language and norms, reflected in the provision of legal definitions of the key terms, the explicit attempt to make the policy cohere with the IAAF constitution and competition regulations, and the limitations placed on the legal recourse that athletes can seek against these regulations. Contrary to expectations of progressive reforms in the regulations in

response to resistance from athletes, the 2018 DSD policy draws on medical discourse and legal mechanisms to intensify the surveillance and normalisation of intersex\* female athletes.

The “policy as discourse” framework instructs us to be attentive to the problematisations on the basis of which particular kinds of governable subjects are produced, and the material and lived effects of this process of subjectification. In relation to the problem of maintaining fair competition, the Eligibility Regulations draw on medical knowledge and institute biomedical norms of femininity to institute a divide between ‘normal’ female athletes and intersex\* female athletes. They produce ‘normal’ female athletes as subjects who are vulnerable and whose rights have to be protected by the IAAF/WA. In contrast, ‘women with hyperandrogenism’ (IAAF Regulations, 2011) and ‘women with DSDs’ (IAAF Regulations, 2018) are constructed as abnormal and threatening subjects who have to be identified and subsequently controlled through procedures of medical normalisation.

The division between the two groups is further exacerbated by the language employed in the policies which refer to intersex\* female athletes variously as ‘cases of gender ambiguity’ and ‘complex cases’ implying that they are medical or legal problems to be resolved. These policies, then normalise the surveillance of female athletes whose appearance is atypical and subtly co-opt ‘normal’ female athletes into this process of surveillance: while the 2006 policy allows athletes to raise a ‘challenge’ with the IAAF/WA if they suspect a fellow athlete, the 2011 and 2018 DSD policies do not explicitly include this provision; instead, the onus is on the IAAF/WA medical manager and medical delegates to initiate confidential investigations, on the basis of information they receive, which – though the policies don’t mention it – could come from other athletes. Given that ‘suspicions’ about an athlete’s gender are rooted in their appearance, athletes of colour are disproportionately targeted by these regulations as they do

not fit the euro-centric norms of appropriate femininity. Further, by suggesting that athletes who either suspect or know that they have hyperandrogenism should report themselves, the policies encourage athletes who do not fit the conventional norms of femininity to police themselves.

Intersex\* female athletes are constituted not only as threats to fair competition in women's sports but also as threatened by their own pathology if it goes undiagnosed. This pathologisation of female athletes with hyperandrogenism in the context of sport derives from the long history of medicalisation of sexual ambiguities and the clinical drive to normalise intersex\* bodies to conserve the sex binary (Fausto-Sterling, 2000a). These policies expose intersex\* female athletes to continual surveillance, potential breach of privacy, invasive medical examinations and medical procedures that could be physically and psychologically damaging. However, the framing of these athletes as abnormal and threatening justifies the medicalised surveillance and enforced normalisation of these athletes, obscuring the exercise of disciplinary power inherent in these normalising measures which are framed as necessary, therapeutic interventions.



## Chapter 6. Intersex\* Female Athletes in the Media

Media reports constitute an important node in the discursive construction of intersex\* female athletes as threats to women's sport. While the 2006 policy does not explicitly consider the need to protect athletes' privacy, the 2011 and 2018 iterations of the policy include specific provisions meant to ensure the confidentiality of sensitive medical data. As observed in the analysis of the policy documents and in the critique of the execution of the policy in *Semenya and ASA v. IAAF* (2018), there are no enforceable measures to ensure the privacy of athletes who are subjected to medical examination. So, irrespective of the stipulations, details of athletes being suspected and subjected to gender verification tests get leaked, leading to highly publicised media speculations about their gender. Such a breach of confidentiality and the ensuing spectacle of highly charged media commentary on intersex\* female athletes and threat they pose to women's sport is not merely incidental or an unintended consequence of poor execution of the policy. Instead, such media scrutiny is central to the socio-cultural construction of hyperandrogenic female athletes as problematic and in need of medical normalisation.

In the media discourse concerning Eligibility Regulations for women's sport, popular anxieties about appropriate embodiment of gender not only gain urgency and relevance, but also acquire institutional sanction and scientificity by being closely aligned with the seemingly neutral medical procedures of 'sex/gender' verification. Media coverage inform public opinions about the threats to fairness in women's sport and how to resolve these threats by functioning as an interface between the general public, policy deliberations conducted by sports administrators and medical discussions about gender and athletic advantages. These reports not only provide information about medical tests conducted on the athletes in accordance with the Eligibility Regulations, but they also draw attention to the

athletes' appearance, give voice to concerns about unfair advantages that these athletes might have on account of their genetics and hormones and speculate about their gender. Such highly publicised discussions about athletes' gender results in their stigmatisation and added pressure to acquiesce to medical interventions intended to make them conform to the gender norms which, oftentimes, impacts their mental health.

The following chapter analyses the media coverage of Indian athletes Santhi Soundarajan and Dutee Chand, and South African athlete Caster Semenya in relation to the IAAF/WA's Eligibility Regulations. The sample consists of news articles that were published in a selection of national and international publications a week following revelations that they had been subjected to 'gender verification' tests. Additionally, articles published in the week following other career milestones, significant personal events in the athletes' lives are included for analysis along with articles published in the week following announcements regarding changes or updates to the Eligibility Regulations. News reports and feature articles from the national newspapers from the athlete's home country (India and South Africa) are analysed along with a selection of international articles to develop a more comprehensive account of the mediated construction of these athletes. This selection also helps to examine continuities and compare differences in the ways the three athletes are represented across these different contexts.<sup>6</sup>

ProQuest newspaper database was used to access archived news articles from the selected publications. The corpus of texts to be analysed was isolated by running keyword searches in the database – with the athletes' names – along with appropriate date and publication filters.

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<sup>6</sup> More detailed information on the dates and publications have been provided in Tables 1-6 in Chapter 3.

The results were scanned to exclude letters to editors and articles that did not directly focus on the athletes to arrive at a robust sample which would be indicative of the general trends in the news media discourse about intersex\* female athletes in relation to the Eligibility Regulations.

### **6.1. “Not Entirely Female”: Santhi Soundarajan, Caster Semenya, and Dutee Chand in the media**

News articles reporting on the gender testing of a ‘suspected’ athlete, present these athletes as different and separate from ‘normal’ female athletes. Santhi Soundarajan, was repeatedly referred to as a gender test failure while continued mentions of Semenya’s ‘masculine’ appearance were used to legitimise suspicions about her gender. As athletes who do not materialise their sex/gender in conformity with the expectations set by the Eligibility Regulations, Santhi Soundarajan, Caster Semenya and Dutee Chand were presented as failed women, even accused of being unscrupulous men, as exemplified by headlines like these:

“Santhi ‘not a woman’; set to lose Doha Asiad silver” (Das & Tampon, 2006).

“Fears teen [Caster Semenya] has hidden a gender” (sic) (Gullan, 2009a).

The three athletes were also placed within a long history of ‘gender benders’ or men suspected of masquerading as women to gain athletic advantages to construct women’s athletics as a threatened category in need of eligibility regulations to ensure fair competition. The following excerpt from an article on Caster Semenya in *The Sydney Herald* illustrates this pattern:

... Similar allegations have dogged a series of athletes throughout the years, including Maria Mutola, the Mozambican 800m great who won Olympic gold in Sydney and three world titles. ...

Another case of gender confusion was Stella Walsh, the Polish sprinter who won gold and silver medals in the 1930s. When doctors examined her after her death in 1980, it was revealed she had "ambiguous genitalia" and was more male than female (Silkstone, 2009a)

Crucially, the athletes' own voices are largely suppressed in these articles as athletics federations, coaches, medical experts, family members and even politicians wage a pitched battle over the regulation of their bodies and their gender status.

Over time, there was a shift in the way these athletes were problematised: from being called 'not entirely female' or those with the 'genetic characteristics of a man', these athletes come to be identified as 'intersexed', which complicates the hitherto accepted binary gender categories. Most news reports prior to the 2016 London Olympics that discussed the temporary suspension of the IAAF/WA's eligibility criteria acknowledged that determining gender was intractably complicated and presented the athletes targeted by these regulations as "athletes with differences of sexual development", "hyperandrogenic female athletes" or as 'intersex' female athletes:

In fact, biologists now recognise a host of conditions, both genetic and otherwise, which are labelled under the umbrella term 'intersex' (Hanlon, 2009).

Ace sprinter Dutee Chand ... tested positive for female hyperandrogenism (Cyriac, 2014a).

Despite a shift in the way these athletes were identified, they were still constructed as separate from 'normal' sportswomen and their interests were presented as incompatible with the rights of normal women to fair athletic competition. Establishing an athlete's 'true' sex – as distinct from their avowed and legally recognised gender identity – is seen as necessary for

the purposes of ensuring fairness in women's events by neutralising any competitive benefits that an athlete might accrue from atypical sexual characteristics. Even as the complexity in determining sex is acknowledged, sport is set up as an exceptional field such determination is seen as necessary. As the sex binary is threatened, the possibility of recouping this binary in an altered form is offered: female athletes with hyperandrogenism can be incorporated into the category of female athletes through medical intervention, in the form of hormone therapy.

Articles that presented a more complex account of sex/gender by highlighting the multiplicity of biological markers used to assign sex and the difficulty in establishing causal relationship between a biological factor and athletic performance included quotes and explanations from medical professionals, who are tacitly acknowledged as the legitimate experts on the biological truth of sex. Even as the difference between sex and gender was not rigorously maintained in these articles, with the medical examinations variously labelled as sex tests or gender verification tests, the biological facticity of sex is still presented not only as real and determinable but also as holding material relevance to configuring competition categories in sport, which are said to be based on physical differences between the 'sexes' that result in different sporting outcomes. These physical differences, resulting from irreconcilable sexual differences, are presented as identifiable through appropriate medical examinations; thus, medical doctors are positioned as appropriate experts on the matter whereas critical examinations of gendered assumptions that underpin medical understanding of sex are deemed irrelevant at best. When arguments about the insufficiency of medical examinations of supposed biological markers are presented, they are voiced by sociologists, which sets up a hierarchical division of intellectual labour: scientific expertise is presumed to produce value-neutral and therefore incontestable truths whereas critical assessments of scientific knowledge are seen to be value-laden.

With time, media coverage also expanded to encompass questions of administration, revealing the challenges facing National Sporting Federations as they attempt to balance the interests of their athletes while carrying out their administrative duties in adherence to the regulations instituted by international sports governing bodies. However, these discussions are limited to questioning administrative lapses that led to the breach of the privacy of the athletes, with the unstated assumption being that surveillance and medical normalisation of athletes is acceptable, if carried out confidentially. This curtails the possibility of examining the battle over Eligibility Regulations and the consequent medical normalisation of the athlete as an instantiation of the ongoing struggle for athletes' bodily autonomy as they become subjected to more pervasive and potent mechanisms of control.

Following an exploratory analysis, articles pertaining to the following events were selected for more detailed analysis. Given that the main focus of the current research is on the scientific and popular justification for the surveillance and medical normalisation of intersex\* female athletes, the articles that speak more directly to these concerns were chosen for a more thorough analysis.

1. News of Santhi Soundarajan being stripped of her Asiad medal following gender verification tests;
2. News of Caster Semenya being subjected to further medical examinations following her victory at the 2009 World Athletics Championships in Berlin;
3. News of Dutee Chand being dropped from the Indian contingent for the Commonwealth Games as she was found to have elevated endogenous testosterone;

4. News of athletes being allowed to compete without any interventions at the London 2016 Olympics following the CAS' suspension of the Hyperandrogenism Regulations; and
5. Announcement of updated Hyperandrogenism Regulations in 2018.

Information from the study of other articles is included in some places to further illustrate certain trends and supplement the key arguments. Following an elaboration of the initial media coverage surrounding the three athletes, the patterns observed in this coverage are explored further thematically in the following sections of this chapter.

## **6.2. Santhi Soundarajan: Indian athlete who failed the 'gender test'**

At the 2006 Asian Games in Doha, Qatar, Indian runner Santhi Soundarajan won a silver medal in the women's 800m race with a time of 2 minutes, 3.16 seconds. Initial news updates on the event in the Indian media highlighted Santhi Soundarajan's victory as she opened the country's medal tally in athletics at the Games. Details of her performances were accompanied by quotes from the athlete that aimed to provide her perspective of competing in and succeeding at the Asian Games. As the Games ended, news articles reported on the preparations being undertaken by the state government of Tamil Nadu and some civic organisations to organise a grand welcome for Soundarajan. Reports also mentioned that in recognition of her achievements, the Tamil Nadu state government had announced a cash prize of 15 lakhs as "Santhi had made India and Tami Nadu proud by winning the silver at the Asian sports meet" (Prasad, 2006).

In addition to updates on her performance, news coverage also included feature stories that provided insights into Soundarajan's personal life and circumstances. In these features,

Soundarajan's victory is presented as a moment of collective national pride and her journey as an athlete is narrativised to fit the archetypal rags-to-riches story where sporting success becomes the means of upward social mobility. An article in *The Hindu* also referenced her humble background: "a local girl who had little access to sophisticated training or diet had competed with the best in Asia and won a medal" (Prasad, 2006). Another article about preparations that were underway to welcome her back to India noted that the organisations that had supported her financially while she was still a promising young athlete were now proud of her. The president of the Rotary Club in her hometown was quoted as saying, "On knowing about her ebullience in sports as a young girl, our club sponsored sports kit to her a few years ago" (Saqaf, 2006). As daily wage labourers, Soundarajan's parents "could not offer her even the barest minimum nutrition", so "gruel used to be her staple food" (Prasad, 2006). Soundarajan is commended for successfully overcoming financial hardships in pursuit of her athletic ambitions, and her achievements stand testimony to the importance and efficacy of hard work. Soundarajan is presented as an embodiment of the ideals of sheer grit, staunch discipline and unwavering commitment to a goal – a role model for others to emulate.

A few days after her victory, it emerged that Soundarajan had been subjected to gender tests in Doha and declared ineligible to compete with women; she would also be stripped of her Asiad silver medal. Following these revelations, the focus in the news stories shifted almost entirely from her achievements to her gender, as indicated in headlines, such as "Santhi 'not a woman'..." (Das & Thampan, 2006) and "Santhi fails gender test" (Mohan, 2006a).

Some articles noted that this was an embarrassment for Indian athletics in general and in subsequent media articles, Santhi became marked as the 'controversial' athlete who had



failed a gender test. There was little international press for Santhi's medal win at the Asian Games, given that it was a regional, rather than a global meet. However, once information was leaked to the media that she had been asked to undergo gender verification tests, there were several news stories focusing on this information. International news articles led with headlines referencing the sex or gender test while decentring her accomplishments as an athlete. *The Australian* indicated in its headline that an athlete had failed "sex test" and the *Daily Mirror* called the incident a "muddle" ("Silver Muddle", 2006).

### 'F' ON RUNNER'S TEST DOESN'T STAND FOR 'FEMALE' ; '

*The Sun*; Baltimore, Md. [Baltimore, Md]. 19 Dec 2006: 2C.

### Race girl 'is a man': [Final 4 Edition]

*The Sun*; London (UK) [London (UK)]. 19 Dec 2006: 13.

### No silver lining after sex test: [1 All-round Country Edition]

*The Australian*; Canberra, A.C.T. [Canberra, A.C.T.]. 19 Dec 2006: 15.

### Women's 800m run medallist 'is a man': [Final 1 Edition]

Orvick, Vikki. *The Sun*; London (UK) [London (UK)]. 19 Dec 2006: 13.

### All of India wonders: Is she, or isn't he? - Sports - International Herald Tribune

*New York Times (Online)*, New York: New York Times Company. Dec 19, 2006.

The following headlines and opening lines from the *BBC* and *The Sun* exemplify this pattern of highlighting the gender tests, while underplaying her achievements; these articles do not even refer to her by name in the opening sentence, and highlight the gender test instead:

#### **Indian athlete fails gender test**

A top Indian woman athlete who won a silver medal at a recent regional championship has failed a gender test, officials say.

Santhi Soundarajan, who took the silver in the women's 800m race at the Asian Games in Doha, has been stripped of her medal, reports say (BBC News, 2006).

### **Women's 800m run medallist 'is a man'**

AN Indian athlete who won a silver medal in the women's 800m at the Asian Games was sent home – for being a MAN.

Santhi Soundarajan, 25, failed a gender test after her victory in Doha, Qatar, on December 9 (Orvice, 2006, emphasis original).

These articles efface Santhi as a person and as an athlete while focusing instead on her gender and presenting her as a threat to women's sport. Most articles labelled her a sex/gender test failure. Underpinned by a binary understanding of gender, Santhi being disqualified from competing with women is automatically taken to mean that she is, therefore, a man. This 'logical' leap is reflected in headlines like, "Race girl is a man" (Race Girl 'Is a Man, 2006) and "And the silver medallist in the women's 800m final is A MAN" (Ellis, 2006, emphasis in original). The *Sun* noted that "AN Indian athlete who won a silver medal in the women's 800m at the Asian Games was sent home – for being a MAN" (Orvice, 2006). While Santhi's performance at the Games is side-lined and the 'gender test' is presented as the main story in these articles, the relationship between her performance and the suspicions surrounding her gender is more vexed: if she had not medalled at her event, the gender tests would not have garnered such widespread attention. While not overtly expressed in these articles, the underlying fears that those were not 'normal' women would unfairly inch out normal women from the podium motivate the enforcement of the Eligibility Regulations. This presumed relationship between 'masculine' traits in women and athletic excellence is presented more explicitly in the coverage of Caster Semenya.

International media articles also referred to her as the “Indian athlete”; repeated references to her nationality not only serve as an identifier but also function as a coded reference to her race. By distinguishing and marking her as separate and different from the presumably white athletes who are deemed appropriately feminine, gender-related suspicions are displaced and contained. Listing this incident with the case of another Indian athlete being withdrawn from competition due to doping violation ‘*The Australian*’ called it the “second controversy to hit the Indian track and field team within a month” (“No Silver Lining”, 2006). By making associations between doping and gender testing, the article subtly imputes culpability to the athlete.

While details of the medical tests were not officially revealed to the media, the articles noted that Santhi was examined by a panel of experts including “a gynaecologist, a psychologist and a genetic expert”. Some articles reported that the official communication sent to the Indian Olympic Association said that she “does not possess the sexual characteristics of a woman” according to tests conducted by the Olympic Council of Asia (Ellis, 2006). The *BBC*, however, noted that “[i]t is not clear how she failed the test at the Asian Games in Doha” (BBC News, 2006). News reports immediately following Santhi Soundarajan’s victory at the Asian Games focused on her achievements and highlighted her success despite her humble beginnings and hardships she had to endure. This draws on and contributes to furthering the myth of sport as a great leveller – an arena where anyone can achieve success on the strength of their own personal efforts despite any adversities. However, when information leaked that she was being subjected to gender tests, she is dislodged from this familiar frame and placed instead within another familiar and recognisable trope – that of the man masquerading as a woman for athletic success. Thus framed as a threat to women’s

sport, there is little regard for her rights or her future as an athlete; her suspension from competition becomes justified and seems to require no further discussion or considerations.

Given Soundarajan's success, her situation is also politicised, and she is treated as having been wronged by the sports' governing bodies not so much on account of her gender but on account of her nationality. Some of the patterns observed in the coverage of Santhi Soundarajan – suspicions that she might be a man, the attribution of athletic success to unfair biological advantages, speculation regarding the results of the medical tests, nationalism-inflected political mobilisation around the athlete and the assumptions about athletic success resulting from unfair biological advantages – are more pronounced in the national and international media coverage of South African athlete Caster Semenya.

### **6.3. Caster Semenya: Girl with “Boyish Looks” Wins Her Race in a “Commanding Fashion”**

At the 2009 World Athletics Championships in Berlin, 18-year-old Caster Semenya won the gold medal in women's 800m race, clocking a time of 1:55.45 seconds. However, following the semi-finals in which she finished first in her heat, information was leaked to the media that she had been asked to undergo gender verification tests by the IAAF/WA. Semenya's own voice remains largely silenced in these articles as she did not or could not speak to the media following the revelations. Having ushered her away from the stadium in the midst of her victory lap, the IAAF/WA had its Secretary, Pierre Weiss, replace her at the post-event press conference, ostensibly to shield the young athlete from the anticipated probing questions by the media. In doing so, however, also shifted the attention of the press away from her performance and focused instead on questions about her gender. Addressing the media, Weiss said that he was “just replacing the winner” before proceeding to state that

“[t]here is no doubt about the fact that this person is a lady, is a woman” before going on to explicitly confirm that “a double investigation has been conducted – is being conducted: one in SA where she is living as well as here in Berlin” (Letsrundotcom, 2009).

Such a confirmation of tests being undertaken is in contravention of the IAAF/WA’s own 2006 policy which states that athletes should be “referred to the investigating authority in confidence for further investigation and advice” (IAAF, 2006, p. 3). When speaking to the media, Weiss at the very least condoned if not actively encouraged prurient interest in Semenya’s gender, by stating that: “I hope you will understand she is not prepared to reply to the questions – *which you are totally entitled to ask*” (Letsrundotcom, 2009, emphasis mine). Further, the statement that, “[i]f at the end of this investigation it is proven that the athlete is not a female, we will withdraw her name from the results of the competition today,” implies that the investigation is not only meant to determine her eligibility to compete in women’s events but meant to establish Semenya’s ‘sex’ as there are still some doubts over this (Letsrundotcom, 2009). Overall, Peter Weiss’ address to the media was not only a breach of confidentiality assured under the 2006 policy, but it also directed attention to, rather than away from, Semenya’s gender, leading to more speculations which were now effectively sanctioned by the IAAF/WA.

In media reports that followed, conjectures about Semenya’s gender became the central focus, overshadowing her victory in the women’s 800m race. Headlines such as, “Fears Teen has hidden a gender” (sic) (Gullam, 2009) and “Gold Medal Winner faces Gender Controversy” (2009) did not even mention Caster Semenya by name, with the *Sydney Morning Herald* even labelling her a “Gender Bender” who had been outed (Silkstone, 2009a).

## Gender bender on the outer: ATHLETICS

Dan Silkstone in Berlin. **Sydney Morning Herald**; Sydney, N.S.W. [Sydney, N.S.W]. 19 Aug 2009: 33.

Gold medal winner faces gender controversy; Caster Semenya must undergo gender tests to prove she is a woman  
 Anonymous. **The Times - Transcript**; Moncton, N.B. [Moncton, N.B]. 21 Aug 2009: C.1.

Semenya faces sex test before being able to claim her gold: Owen Slot examines the controversial issue of the little-known South African who must prove she is female after her victory in the 800 metres [Eire Region]

Slot, Owen. **The Times**; London (UK) [London (UK)]. 20 Aug 2009: 54.

## Fears teen has hidden a gender

Gullan, Scott. **The Australian**; Canberra, A.C.T. [Canberra, A.C.T]. 19 Aug 2009: 16.

In foregrounding doubts about her gender, as with Soundarajan, these articles drew attention away from Semenya's achievement; when her performance in the final was mentioned, the margin of her victory was highlighted to implicitly suggest that the nearly two-and-a-half second time gap between Caster Semenya and the silver medallist, Russian Mariya Savinova, might be the result of insurmountable athletic advantages she enjoys over other female competitors. The following excerpts illustrate this:

The 18-year-old won her semi-final in commanding fashion at Berlin's Olympic Stadium on Monday, eliminating Olympic champion Pamela Jelimo of Kenya along the way.

But the South African's physique and powerful style have sparked speculation in recent months that she might not be entirely female (Silkstone, 2009a)

Semenya, 18, burst on to the world scene in recent months with her appearance, including obvious facial hair, and muscular build igniting speculation about her gender.

The IAAF is aware of the issue and has conducted physical tests and genetic screening to try to determine the legitimacy of the African's sex.

Semenya announced her arrival in the big time at last month's African Junior Championships, running 1min 56.72sec, which was more than seven seconds' improvement on her performance at the world junior championships the previous year (Gullan, 2009a)

Caster Semanya won by a huge margin Wednesday in the face of revelations that the world track body asked her to undergo gender testing ("Gold Medal Winner", 2009).

Other plausible explanations for the seemingly dramatic improvement in her performance – notably that she had only recently moved to Johannesburg for professional training – are largely omitted from discussion. Again, similar to the pattern observed in the news coverage surrounding Santhi Soundarajan's testing, some articles speculated that Semanya could be veiling the truth about her gender or that she might be a man.

IS she a he?

That is the question being asked behind closed doors at the world championships about the gold medal favourite in the 800m, South Africa's Caster Semanya (Gullan, 2009a).

Semenya is at the centre of a storm over whether she is a man, a woman, or something in between. Semanya has burst onto the scene from obscurity in recent months. The teenager has raised eyebrows since her emergence because of her stocky, muscular physique and apparently masculine characteristics, including facial hair (Silkstone, 2009b).

The binary model still functions as the dominant framework for understanding gender, according to which Semenya is ‘not entirely female’. Almost all of the articles surveyed drew attention to Semenya’s appearance, which was coded as masculine. *The Australian* alluded to her “physique and powerful style” with even more explicit references in a later article which noted that she had “obvious facial hair, and muscular build” (Gullan, 2009b). *The Times* made a more subtle, veiled reference, stating that “her appearance and strength” have raised concerns. These articles contrast conventional expectations of feminine embodiment with Semenya’s muscular physique, deep voice and facial hair to cast her as suspicious. Co-opting the crowd response into this narrative of suspicion, *Sydney Morning Herald* noted that the spectators at the stadium watched in stunned silence as “it looked like they'd just watched a boy run around as a girl and win the world title” (Gullan, 2009b). This obsession with her appearance illustrates the centrality of physical scrutiny – both at the level of informal observations by the media, fans and fellow competitors and the formal ‘physical tests’ included in the medical examinations – in apprehending an athlete’s gender. This evident obsession with the South African athlete’s atypical appearance is in contrast with the explicit mentions in the policy documents that it is not prejudicial and not premised on appearances.

Fellow competitors articulating their displeasure with having to compete against Semenya was also covered widely in the international media. Italy’s Elisa Cusma was quoted as saying that for her, Semenya was not a woman and that “these kinds of people should not run with us,” (Seale & McCallum, 2009; cf. Hart, 2009) while Russian Mariya Savinova’s retort of “just look at her” was repeated across publications (Clarey & Kolata, 2009; Lawson, 2009; Webster, 2009). British athlete Jenny Meadows was more reticent, stating that it was up to the IAAF/WA to decide on the eligibility rules (Slot, 2009a).



Media reports provided limited space for Semenya to speak about her gender or respond to the suspicions while the voices of her fellow competitors were amplified. As the comments made by Savinova and Piccione indicate, the objections to Semenya's participation in women's category are structured by assumptions about femininity and culturally shared expectations of appropriate feminine embodiment. At this point, as no information was available – either officially ratified or otherwise – on the medical tests conducted on Semenya or any biological advantages that she might possess, the concerns about her participation hinge on assumptions about unfair athletic advantages made on the basis of her supposedly 'masculine' appearance.

While there are no overt or obvious references to Semenya's race in these comments, her race cannot be meaningfully decoupled from her embodiment of gender. The repeated invocation of her appearance, combined with the fact that the athletes quoted by the media for expressing their problems with Semenya's participation happen to be White suggests that the suspicions about her gender are also underpinned by racialised assumptions about appropriate femininity. In quoting the concerns voiced by other female athletes, media reports imply that it would be unfair for them to have to compete against Semenya. However, this assessment of lack of fairness does not derive from a nuanced discussion about athletic advantages based on medical evidence or careful ethical considerations. That Semenya possesses competitive advantages that may be unfair is inferred from her atypical appearance.

The regulations explicitly state their intention to direct attention away from an athlete's looks and instead base evaluations of eligibility to participate on clinical or medical data. However, suspicions and consequent investigations into an athlete's gender are primarily based on assumptions made on the basis of their appearance, and the concerns voiced by the athletes

stand testimony to this continuing obsession with how female athletes present themselves. Repeated references in media reports to Semenya's musculature and 'boyish looks', combined with reports of protestations made by fellow competitors, present the sporting atmosphere as vitiated by Semenya's presence, necessitating protective intervention by sports' administrative bodies. Within this context, the 'gender verification tests' ordered by the IAAF/WA becomes a warranted and understandable response to protect women's sport.

#### **6.4. Dutee Chand "Tests Positive for Female Hyperandrogenism" (Cyriac, 2014a)**

News reports about Dutee Chand being subjected to medical tests were largely confined to the Indian media as she was tested in accordance with the Indian sports ministry's Standard Operating Procedure – a procedure adopted to test athletes at the national level, in accordance with the IAAF/WA's 2011 hyperandrogenism policy. When it was revealed that a high-profile athlete was dropped from the Indian contingent for the 2014 Glasgow Games as she had failed a medical test, media reports speculated that this athlete was Dutee Chand. The Athletics Federation of India then issued a public statement that an athlete was being subjected to medical tests, and the director general of Sports Authority of India (SAI) even stated that "[a]s per the reports, she has been deemed unfit to contest under the female category" ("SAI confirms", 2014). Rather than clarify matters, these statements only served to fuel further speculation that Dutee Chand had indeed been subjected to medical examinations. Even though the athlete was not named in these statements, these revelations were still in contravention of the Standard Operating Procedure which required medical tests to be conducted confidentially.

The 2011 hyperandrogenism policy document attempts to distance itself from the problematic history of gender verification tests in sports and explicitly states that the Regulations do not

attempt to determine the athlete's gender. However, media coverage about Dutee Chand demonstrates that such a distinction between gender tests and tests for hyperandrogenism mandated are not always rigorously maintained or explained in news reports which cast the athlete's gender as suspect. Early media stories still focused on Chand's gender and called the medical investigations gender tests with headlines, such as, "Athlete Dutee Chand's gender status under lens" ("Athlete Dutee", 2014) and "Dutee Chand Faces Gender Hurdle" (Singha, 2014). The latter article went on to state that "The Sports Authority of India (SAI) recently conducted a gender verification test on the promising junior sprinter" (Singha, 2014). Even when reporting about Dutee Chand, most of the articles, recounted the history of Indian athletes who had been embroiled in gender controversies as a way of contextualising Chand's experience while also reiterating the need to ensure that only eligible athletes compete in women's events. Focusing on SAI's policies rather than the athlete's experience, the article in the *Times of India* noted that:

Sources said SAI has adopted a zero tolerance policy over gender suspicions as India had to face embarrassment at an international event in the past when 800-metre runner Santhi Soundarajan failed the gender test at Doha Asiad in 2006 and had to return her silver medal.

South African 800 metre world champion Caster Semenya had also courted controversy over gender issue but was later allowed to return to competition in 2010 (Singha, 2014).

By referring to the medical tests as gender verification tests and by recalling instances of other athletes who were tested in the past, Chand's identity as a woman is effectively rendered suspect in the popular imagination.

Attempting to underscore the distinction between erstwhile gender verification tests and Hyperandrogenism Regulations, the Sports Authority of India released another statement noting that, “We reiterate that these test results do not determine her gender. The test simply tells us that she has excess androgen in her body and is therefore not eligible to compete in the female category” (Cyriac, 2014b). However, by then “[s]everal media reports had claimed that SAI had conducted gender-verification tests” (“SAI Confirms”, 2014). Following the second media release by SAI, there were more articles with detailed information on the nature of the tests, clarifying that they were intended to discern whether Chand had excess androgens in her body, which would make her ineligible to compete with women unless she brought her testosterone levels to the permissible limits through medical interventions.

These articles also criticised the Athletics Federation of India and SAI for flouting the directive to maintain confidentiality in the Standard Operating Procedure. Quoting directly from the Procedure document, they noted that “It will be the responsibility of these officers to carry out the investigation process in most confidential manner” (Cyriac, 2014a). Even as some of the intricacies of the medical investigation are mentioned, the ethics of subjecting athletes to usually medically unnecessary and potential harmful interventions remain unquestioned. There were also speculations in the media that even prior to the tests, Chand’s coaches and trainers might have known of her “medical condition”. *The Times of India* reported that their sources told them “that some of the AFI officials and coaches were clearly in the know of her *medical condition* but had kept quiet. “It is difficult to believe that Dutee's coach and chief coach at the national camp were not aware of this during all these months” (Cyriac, 2014b).

This indicates that informal, ongoing surveillance of athletes is not only normalised but expected of their coaches and also frames hyperandrogenism as a medical condition in need of treatment. Similar to the pattern of criticism observed in Caster Semenya's case, most of the articles present breach of privacy as the key issue implying a tacit agreement that relentless surveillance enabled and formalised by the regulations are necessary to ensure fairness in women's sport. When Dutee Chand and her management team responded to this situation, they were quoted as saying that Chand was willing to undergo any medical interventions that would enable her to compete again. This serves to strengthen the understanding of hyperandrogenism as a medical problem in need of appropriate treatment.

The pattern of problematisation of Dutee Chand in these articles showed some significant departures from the ways in which Santhi Soundarajan and Caster Semenya had been problematised: there were no references to Chand's physical appearance or accusations that she was a man. While some articles still mentioned that she was subjected to gender tests, it was later clarified that she had excess endogenous testosterone that rendered her ineligible to compete with women. Some articles attempted to provide a nuanced view of sex/gender and intersex variations and made the case for considering cultural, ethical and personal aspects of gender identity. Quoting researcher activist Dr Payoshni Mitra on this, the report in *Live Mint* noted that "There are several ethical problems with such regulations ... . The test results have a confidentiality clause which is important, as it protects the athlete's privacy, but it also masks all forms of potential malpractice" (Ratnam & Sengupta, 2014).

Caster Semenya's testing in 2009 initiated broader discussions about gender and spurred critiques of the IAAF/WA's eligibility criteria that was in effect in 2009. These discussions eventually resulted in the IAAF/WA formulating new regulations that came into effect

beginning in 2011. As mentioned earlier, this iteration of the Regulations was worded carefully to focus attention away from gender verification tests. Vague assertions made about ‘gender ambiguity’ in the earlier version of the Eligibility Regulations were eschewed and the issue was defined in clearer terms: the regulations stated that they were targeted at XY women with elevated endogenous testosterone that gave them an athletic advantage over their fellow competitors. This complication of the gender binary in the regulations, I argue, have had an impact on how intersex\* female athletes are problematised in the media. In Dutee Chand’s case, these changes are reflected in more nuanced discussions around gender and athletic advantages and coverage that also focused on the lapses of the Sports Authority of India in conducting the tests. However, these articles still fixated on Chand’s gender, cast the Hyperandrogenism Regulations as gender verification tests, normalised pervasive scrutiny of athletes and, more importantly, presented female hyperandrogenism as a medical condition in need of treatment.

### **6.5. The Canon of ‘Gender Frauds’: From Dora Ratjen to Caster Semenya**

In the media discourse on gender testing regulations, Santhi Soundarajan, Caster Semenya and Dutee Chand are placed within a (supposedly) long history of ‘gender frauds’, a history which according to *The Times* stretches as far back as 1934 when Canadian athletes supposedly complained about having to compete against girls “who shaved and spoke in mannish tones” (Stewart, 2009). When reporting that Santhi Soundarajan was subjected to gender tests, *The Hindu* included a brief timeline listing other ‘gender benders’ in sport. This “canon of gender frauds” includes Polish athlete Stella Walsh who was nicknamed “Stella the Fella”, German athlete Dora/Herman Ratjen, a German athlete who was reportedly forced by Adolf Hitler to compete in women’s events as Dora Ratjen and the Press sisters – Irina and Tamara – from the Soviet Union (Heggie, 2010). *Sydney Morning Herald* also mentioned

Mozambican Maria Mutola in the list of athletes whose gender was considered suspect (Silkstone, 2009a). *The Star*, reporting on Caster Semenya, stated that “[i]f she was proved to be male, she would be the latest in a string of gender fraud cases in international athletics.” By recounting instances of other athletes who were “gender frauds” or “gender benders”, media articles discursively construct a history of ‘gender bending’ in women’s sport. These historical accounts, coupled with the misgivings expressed by other athletes, serve to cement the construction of women’s events as constantly threatened by unscrupulous athletes and therefore in need of surveillance and intervention by the IAAF/WA to maintain fairness. Even articles that were more ambivalent in their assessment of the gender verification tests invoked these previous instances of ‘gender bending’ to concede that some regulations and entry restrictions were necessary to ensure the sanctity of women’s sport.

These media reports form a part of the “standard account” of the history of gender frauds according to which as sporting success became more closely entwined with national glory beginning in the 1950s, countries coerced male athletes to masquerade as women to win medals (Heggie, 2010). The following excerpts are illustrative of this standard account:

In 1955 it was revealed that a German athlete who had competed at the 1936 Berlin Olympics as "Dora" was actually a man named Hermann Rajten. Rajten finished fourth in the women's high jump.

Russian sisters Tamara and Irina Press combined to win five Olympic gold medals and break 26 world records in hurdles and shot put respectively during the 1950s and '60s.

Their dominance raised suspicions and when gender testing was introduced in 1964 the pair disappeared from international competition.

At the 1932 Olympics in Los Angeles Polish sprinter Stella Walsh won gold. It wasn't until she was shot dead by a robber in 1981 that an autopsy revealed the 69-year-old had male sex organs (“No Silver Lining”, 2006).

Another article in *The Times* noted that:

The unhappy predicament of Caster Semenya, the 800-metre winner in the World Athletics Championships who is to be tested to establish whether she is too masculine to compete as a woman, is reminiscent of the nudges and winks that dogged successful women athletes in the 1930s.

Germany's high-jump specialist, Dora Ratjen ... was really Hermann Ratjen, cajoled by the Hitler Youth into becoming a sporting transvestite for the good of German medals table supremacy (Stewart, 2009).

Framed within a binary understanding of sex/gender, media discourse constructs these athletes as men masquerading as women for potential athletic glory. However, the description of Dora Ratjen in these articles is at variance with the biographical information provided on the athlete by the International Olympic Committee which states that “more recent evidence suggests that Ratjen's gender was mixed from birth, and his parents raised him as a girl, although he had hermaphroditic sexual characteristics” (IOC, 2022b). Discounting as mere rumours that Dora Ratjen was knowingly masquerading as a woman to gain athletic advantages, the IOC's entry also notes that it was only in 1939 – three years after the Berlin Olympics – that Dora's name was changed to Heinrich and sex was changed to male in official documents. In the case of Stanisława Walasiewicz, popularly known as Stella Walsh, the autopsy conducted after she was killed in a shooting identified “gynandromorphism, meaning mixed internal sexual organs” (IOC, 2022c). For Irina and Tamara Press, media



reports treat their withdrawal from competition in 1966, around the time that gender verification tests were instituted, as sufficient proof that they were men who did not want to risk being exposed. Again, IOC characterises this as “widespread – yet never proven – rumors regarding Press’s gender” (IOC, 2022d).

Contrasting the media discourse about “gender frauds” with further information on these athletes complicates an oversimplified view that these athletes were men masquerading as women to gain athletic glory. However, these varying constructions are presented here not to dispel pernicious rumours and uncover a more complete or ‘truthful’ account about the sex of these athletes. This contrast aims to indicate that eliding details and nuance in the news articles draws on and strengthens a binary understanding of gender and feeds into fears regarding the threat to women’s athletics events.

### **6.6. Always Already Suspicious Bodies**

In contextualising current suspicions about the athlete’s gender raised by the IAAF/WA, several articles made references to previous instances when the athlete’s gender was questioned. In the case of Santhi Soundarajan, reports noted that she had previously cleared similar gender tests in South Korea. While a passing reference is made to this inconsistency, it does not initiate any exploration into the nature of the medical tests and the complexities and indeterminacy inherent in using medical tests to measure a sociological category. In the absence of any further discussion, these references only serve to point to the complexity and the need for more refined and ongoing testing mechanisms to ensure only eligible athletes compete in women’s events.

In contrast to this, some articles noted that Soundarajan had earlier been denied a job with the Indian Railways under women's quota:

It is learnt Santhi could not make it to the Southern Railway team last year following doubts over her gender.

How Santhi was cleared for participation when she had reportedly failed to satisfy medical authorities in the Southern Railway about her gender when she sought employment there sometime ago is a point that will come up for debate in the coming days (Mohan, 2006a).

Referencing this incident to imply that Soundarajan's gender was already suspect, these articles subtly hint that the athlete herself, or the Indian athletics authorities were unscrupulous in still fielding her for an international competition. In noting that Santhi should not have been allowed to compete at the international level if there were concerns, there is an implicit demand for higher surveillance of athletes at the national level to avert potential embarrassment for Indian athletics at the international stage. A longer article that was published in *The Hindu* a week after these revelations were first reported in the media hypothesised that – “5-alpha-reductase type-2 deficiency (5-ARD)” could be the reason for Santhi failing the gender test (Mohan, 2006b). This condition is explained as a ‘deficiency’ that results in a genetically male child being raised as female; this explication still operates within the terms of a binary notion of gender according to which Santhi Soundarajan, irrespective of her gender identity and her assigned gender at birth is actually (imperfectly) male – as ascertained through appropriate biomedical markers.

In Caster Semanya's case, news reports noted that misgivings about her gender predated the IAAF/WA's revelations that she would be subjected to medical examinations. *The Times*

reported that fans and some fellow competitors had suspicions, observing that “the closer Berlin got, the louder became the whispering campaign. Her arrival here was preceded by speculation in athletics chat rooms about her sexuality” (Slot, 2009b). Some articles provided accounts of other incidents from her personal life to show that her femininity had been questioned, even outside the sporting arena. To substantiate this claim, the details of Semenya being stopped from using a women’s restroom in a petrol station in Cape Town was repeated by many publications, including *The Star* and *Sydney Morning Herald*:

At a petrol station in Cape Town recently, a teenager went to enter the ladies' bathroom, but she was stopped by an attendant. She was told she wasn't allowed in there because she was a man.

That woman was 18-year-old Caster Semenya, who laughed and asked the attendant if they would like her to take off her pants and prove she was female. (Halloran, 2009)

Her coach Michel Seme narrated Semenya’s response to being stopped from using the restroom: “Caster just laughed and asked if they would like her to take off her pants to show them she was a woman” (Seale & McCallum, 2009).

While this incident highlights Semenya being subjected to scrutiny because of her atypical appearance, it also normalises such scrutiny and presents physical examination as the means through which any doubts about gender can be resolved. Longer feature stories, mostly in the South African press, delved into Semenya’s personal history and her athletic career to highlight other instances where her gender had been questioned. These articles, in subtle and implicit ways, measured her against stereotypical expectations of feminine behaviours and interests by noting that she did not wear frocks and preferred to play football with the boys. They also recount instances from her childhood where she was asked to prove her gender by suspicious parents of fellow competitors at school athletics events. *The Star* stolidly notes

that “Semenya has dealt with accusations of being a man most of her teenage life.” In an article titled, “Semenya’s life-long battle” in *The Star* her former teacher is quoted saying:

Some schools, suspecting that she was not a girl, even demanded that her status be checked. But each time they returned from the toilet, she would be cleared and the competition would resume.

We would ask her why they had taken her to the toilet, and she would just say ‘They are doubting me’, without explaining further. (Seale & McCallum, 2009)

Details of such invasive and harrowing examinations and near-constant surveillance indicate the extent to which discriminatory practices and physical scrutiny of those who do not fit the gender norms are normalised, especially in the context of sports competitions. Formal Eligibility regulations operate within this environment of discrimination and suspicion of non-normative bodies, and conversely the existence of these official regulations at the apex level provide sanction for these practices of surveillance at local athletics events.

With Semenya’s gender identity framed as already problematic, the medical tests ordered by the IAAF/WA are presented as an almost necessary logical culmination of this suspicion rather than as having initiated this discussion about the gender of an athlete who was assigned female at birth and has identified as a woman throughout her life. Further, in recounting Semenya’s nonchalant response to the scrutiny, these articles set up expectations that since she has navigated such scrutiny in the past, she would quietly acquiesce to the tests being conducted by the IAAF/WA as well. In providing extensive details of the ways in which Semenya was subjected to scrutiny over the years, media reports normalise such surveillance and further impinge on her privacy through their own investigation into her gender. For instance, in addition to interviewing her family regarding her gender, the *BBC* even obtained

copies of her birth certificate which showed that the gender assigned to her at birth was female. Copies of this certificate were printed in several subsequent articles in the *BBC* thereby bringing more aspects of her life into the ambit of media scrutiny and discussion (BBC News, 2009a).

In the South African media, there were several articles which included quotes from her parents, friends, coaches and former teachers supporting Semenya and attesting to her femininity. However, their vehement assertions of her femininity are still tempered by acknowledgement of her atypical appearance and a resigned acceptance of the concomitant scrutiny. This vexation and ambivalence is best exemplified in her coach Michael Seme's statement that:

We understand that people will ask questions because she looks like a man. (Seale & McCallum, 2009).

In these reports, gender emerges as relational and socially assigned category as it is others around Semenya – her family, her coaches and the IAAF/WA – who get a chance to pronounce on her gender while she herself is largely silenced. Without explicitly dwelling on the athlete's own gender identification, these articles counterpose two kinds of knowledge about (Semenya's) gender: the knowledge that her friends and family have about her gender, gathered through their experience of living with and interacting with her, is pitted against the expert or scientific knowledge to be generated through medical testing. Cooky, Dycus and Dworkin (2013) note that articles in the South African media challenged the IAAF's scientific gender verification procedures by positioning her immediate family and friends as those who can attest to her being a girl (p. 46). However, for both of these types of knowledges, physical examination or evaluations about her appearance in relation to the 'norm' form the starting point for gathering information, as indicated by the explicit

references to her appearance and more subtly coded statements alluding to her 'looks'. However, for knowledge about her sex/gender that will be accepted as legitimate by the sports' governing bodies, rudimentary physical examination has to be supplemented with invasive medical tests including genetic screening and hormonal profiling – done by medical experts – which are said to provide access to the underlying truth of her sex/gender.

### **6.7. Grand Homecoming: Support in Home Countries**

For Santhi Soundarajan and Caster Semenya, the demand for gender verification tests closely followed significant athletic achievements. Despite this 'controversy', they were welcomed back in their home countries with significant fanfare, and this was widely reported in the national media. News reports in India noted that Santhi was felicitated by the state government and given a cash prize in recognition of her achievements. There were several articles on the felicitation ceremony organised for her by the government of Tamil Nadu which included quotes from her parents and other officials of the Tamil Nadu State Athletics Association expressing their support for Santhi. Sports and Youth Welfare Minister TPM Mohideen Khan noted that "It is our duty to encourage someone who has brought honours to Tamil Nadu ("TN Honours Santhi", 2006).

However, these statements of support were tempered by editorial commentary on the controversy around her gender and the possible eventuality that she might lose her medal. The Mumbai Mirror noted that Soundarajan was being feted, "[i]gnoring the controversy that Doha Asian Games 800-metre silver medallist Shanthi Soundarajan has sparked by her failure to clear a gender test" ("Gender Bender", 2006). Santhi being subjected to gender tests was also explicitly politicised as the Chief Minister of Tamil Nadu, M K Karunanidhi, was quoted as saying that in doubting her gender, international sports governing bodies were

insulting Tamil women everywhere. Here Santhi is not just an individual athlete but comes to symbolise a particular kind of regionally and nationally inflected femininity – in contrast to Eurocentric femininity – which was being disrespected by the international sporting establishment. These quotes also indicated a lapse or breakdown in communication between the athlete, the Athletics Federation of India, and Asian Olympic Committee: Santhi and the Indian officials alleged that they had received no official communication regarding either the medical tests that were conducted or about her medal being rescinded.

These statements in support of Santhi Soundarajan still implicitly rely on a binary understanding of gender to note that she is unquestionably a woman. While the politicisation of the issue was relatively attenuated in the case of Soundarajan and her race does not explicitly figure in the discussion, Caster Semenya became the flashpoint for impassioned political mobilisation in South Africa with members of Athletics South Africa and politicians alike calling the scrutiny racist and abhorrent. Politicians cutting across party lines made statements and issued press releases in support of their ‘African Girl’.

In South Africa, reports in *The Star* and *Cape Argus* closely followed the preparations that were underway to welcome Semenya and other winners from Berlin. *The Star* reported that she received a “rapturous welcome” from the “Joyous fans [who] turned up in their thousands” with supportive posters (Seale, 2009). *Cape Argus* also reported on her meeting with the President Jacob Zuma who criticised the IAAF/WA for violating Semenya’s “rights to human dignity and privacy” (Breytenbach, 2009). While some of these articles still mentioned the controversy surrounding her gender, many others steered clear of this incident to highlight the celebrations. While reports of these gatherings showed wide public support for these athletes, Caster Semenya’s treatment by the IAAF/WA was explicitly politicised in

South Africa as racially motivated. Athletics South Africa president pointedly noted that the IAAF/WA would not treat a (white) European athlete in a such a demeaning fashion, stating that, “We are not going to allow Europeans to describe and define our child ... we will define our child.” Reports showed broad-based support for Caster Semenya from across the political spectrum with ANC announcing a cash reward and its President, Julius Malema questioning “this racist attack on this beautiful woman” (Williams, 2009).

There were articles that were critical of such political mobilisation behind Semenya calling it opportunistic while pointing out the double standards: politicians were willing to support Semenya while lesbian women were being subjected to corrective rapes and murdered in the country (“SA politicians”, 2009). The broad-based political support for Semenya, though, hinged on strident claims that she was a woman and any scrutiny to confirm this was unwarranted and inherently racist. Such a defence, while condemning the racism, elides the interplay between racism and heterosexism in the treatment of Caster Semenya. Some of the support was patronising, as evidenced in Leonard Chuene’s assertion that “we will define our child” (Smillie, Seale & McCallum, 2009), while some conflated gender and sexuality while attempting to defend her femininity by asserting her heterosexual attractiveness, as seen in Julius Malema’s reference to her beauty (Murray, 2009; Williams, 2009). Such support, while posing a challenge to the IAAF/WA’s sole authority in defining Caster Semenya’s gender, risks erasing important differences and the potent challenge that Semenya poses to conventional notions of femininity while also reifying binary gender categories. It is also undergirded by an implicit devaluation of intersexed identity which is defined not on its own



terms but as a failure to fit one of the two available gender categories, so being categorised as intersex is itself seen as stigmatising.<sup>7</sup>

### **6.8. Initiating Conversations about Gender**

As reports of welcome ceremonies and felicitation events indicate, the cultural significance of Caster Semenya and Santhi Soundarajan extended beyond the confines of the sporting arena. Caster Semenya's testing provided the impetus for a broader discussion on gender and women's rights within South Africa which extended beyond the more immediate concern of gender testing in sport. A few days after the news of Semenya being subjected to gender tests first broke, there were feature stories in national broadsheet dailies that delved into the problems of heterosexism in South African society in general. One article looked at the potential role of the newly instituted women's commissions in ensuring women's rights and bringing about political and legal changes, using the letter they had sent to the IAAF/WA seeking an explanation for the dismal treatment of Semenya as an instance of what they could achieve.

There were several articles that attempted to resist the narrative of suspicion around Semenya by pointing out that she was being publicly humiliated and punished as her embodiment of her gender poses a challenge to archaic norms that have persisted even in technologically advanced times (Lategan, 2009). *The Times* noted that Semenya's real fault was that she unsettled our certainties about gender – “one of the most cherished things in each individual ... [and] one of the cornerstones of society” (S. Barnes, 2009). *The Star* noted that if she had “worn a wig or hair extensions, put “glossy red” on her lips, worn false eyelashes ... she

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<sup>7</sup> For a more detailed elucidation of the intractable complexities involved in feminist mobilisation around Caster Semenya, see Swarr, Gross & Theron (2009) and Magubane (2014).

would have been regarded internationally as a brilliant female athlete” (“Athlete’s primary sin”, 2009). Some other articles critiqued the invasion of her privacy, noting that she had been subjected to a sensitive procedure like a genetic test without obtaining her informed consent (“To subject”, 2009). Additional articles broadened the scope of discussion to include a critique of cultural assumptions about gender and collective discomfort with those who unsettle the boundaries of gender and sex.

A report in the *Cape Argus* criticised Semenya’s scrutiny as stemming from a morbid fascination with those who are “othered” and deemed abnormal on the basis of physical markers of difference, noting that the “Semenya saga bears a striking similarity to that of the Saartjie Baartman tragedy” (“Dealing with”, n.d). In another feature article, the controversy around Semenya is placed within the context of homophobia in South Africa and violent retribution – like “corrective rapes’ of butch women – meted out to those who do not conform to the dominant norms of gender and sexuality (“Spotlight of Curiosity”, 2009). A long letter in *The Star* commended Semenya for her athletic prowess and her grace and dignity in handling the scrutiny, noting that speculations about her gender were not only an issue of racism but also an instance of sexism as “often, women from Russia and other European countries have been probed on so-called gender grounds” (Gasa, 2009). Other articles focused their critique on sport and the tenuous distinction made between excess endogenous testosterone and other kinds of natural advantages.

### **6.9. Complex narrative about sex/gender**

In reports about the athletes being subjected to gender verification tests, specific details about the policies under which they were tested were seldom included. In Santhi Soundarajan’s case, only one of the articles surveyed provided some information on the testing procedure,

noting that a “panel including a gynaecologist, an endocrinologist, a psychologist and a genetic expert” was involved (Mohan, 2006a; Orvice, 2006). Even in Caster Semenya’s case, few articles provided further details on the actual policy under which the IAAF/WA was authorised to test her. The only article that mentioned the IAAF/WA’s policies made a reference to Rule 113 of the IAAF/WA rule book which outlines the roles and responsibilities of the medical delegation (Slot, 2009b). However, Semenya was subjected to tests in accordance with the 2006 Policy on Gender Verification which was in effect at the time. With regard to details pertaining to the nature of the medical tests themselves, some articles indicated that Semenya would undergo “physical and genetic tests”; even fewer noted that she would be examined by a panel comprising “a gynaecologist, an endocrinologist, a psychologist and a genetic expert”.

An article in *The Star*, specifically looked at the IAAF/WA’s policy documents, focusing on the sections of the policy pertaining to ensuring athletes’ confidentiality. This article also noted a discrepancy in the policy, stating that though the policy acknowledges that genetic differences could result in gender variations, “the IAAF list of specialists does not include a medical geneticist” (“What the IAAF”, 2009). However, there was little information provided on what the medical investigations were actually trying to ascertain. In the absence of these specific details the logic underpinning the Eligibility Regulations is never made explicit or subjected to any scrutiny or discussion. Pervasive, though unstated, cultural assumptions give meaning to the overall arguments, such that these athletes being deemed suspicious is itself sufficient to condemn them, and their athletic achievements are explained away with reference to their supposed insurmountable advantages.

Some feature stories that were published a little later included expert commentary on the complications involved in the process of gender testing, though without references to any specific details of IAAF/WA's policies. Noting that sex and gender had been used interchangeably in the discussions surrounding Caster Semenya, an article in *The Star* attempted to disambiguate the terms by drawing attention to the ways 'gender' has been used to refer to cultural aspects of one's identity, as "opposed to the biological distinctions between the sexes". Another article in *The Times* outlined the differences and variations that can occur in sex/gender development. Explaining the (deemed to be) normal path of gender development, the author notes that:

The default gender for all developing babies is female and the Y chromosome alters this by increasing production of male hormones (androgens), which masculinise the child — the ovaries migrate through the abdominal wall to become the testes, the labia fuse to form the scrotum, the clitoris grows to become the penis and the child becomes a boy. (Porter, 2009)

These explanations still rely on a rigid biological model for explaining sex in binary terms. Within this framework, the feminine developmental pathway is presented as passive while the masculine pathway is presented as active, as evidenced from the above excerpt. It is also implied that any deviation from these two available developmental pathways is abnormal and in need of medical correction.

#### **6.10. "It's Caster Against the World": 2016 Rio Olympics (2016)**

Caster Semenya was the subject of extensive international media coverage prior to the 2016 Rio Olympics; referring back to the medical investigation carried out by the IAAF/WA in 2009, these articles called Semenya the "controversial" "intersex athlete" who would continue to be a divisive figure in athletics even if – or especially if – she went on to win the

gold medal in her event. Pre-event media coverage focused on Caster Semenya's gender, noting that "She is certain to become the most controversial athlete of the Olympic Games, just by running to her ability in tonight's women's 800m heats" (Jeffery, 2016a).

In discussing Semenya's prospects at the event, these articles included detailed information on Semenya's physiology and anatomy. Such coverage not only violated her privacy but also normalised the scrutiny of Semenya's body as part of regular media coverage on the athlete. *USA Today* reported that "her testosterone levels are far higher than normal. She has no womb or ovaries but, because of a chromosomal abnormality, she has internal testes", and *The Times* noted that "A chromosome abnormality means that she has no womb or ovaries" (Ouzia, 2016). The results of medical tests conducted on Semenya, and any suggested medical interventions were never made public, and she was also allowed to keep her gold medal won at the 2009 Berlin World Athletics championships.

Even in the absence of any official confirmation, media articles still referred to her as the "intersexed" athlete or mentioned that she had hyperandrogenism and asserted that she had undergone hormone suppression which adversely impacted her performance. Some articles, like the one in *The Australian*, included the caveat that the information was not officially ratified by the IAAF/WA, but nevertheless went on to state that, "there were media reports that Semenya had been found to have an intersex condition (both male and female sexual characteristics) and had been put on medication to limit her testosterone production to "normal" female range" (Jeffery, 2016a). Another article in the same publication also noted:

The suspension of the testosterone limit has coincided with the re-emergence of Semenya as an irresistible force in the sport. It is widely believed that she has stopped

taking whatever medication was previously inhibiting her testosterone production as a result of the CAS ruling, but no one has been able to confirm this. (Jeffery, 2016b)

Implying that Semenya possessed insurmountable advantages over her competitors, these articles stated that the result of women's 800m was effectively decided before the athletes even took to the tracks:

Sixty-three women entered the first round of the 800m knowing Semenya will win gold in Saturday's final if she runs anywhere near her potential. (Hayward, 2016)

Her dominance is so great, and improvement so rapid, she will threaten the world record of 1 min 53.28sec held by Czech Jarmila Kratochvílová that has stood intact for 33 years. (Magnay, 2016)

Caster Semenya won't get out of second gear in winning Olympic gold in Rio. That's the scary prediction of leading Australian coach Nic Bideau. (Gullan, 2016)

Semenya could run the fastest time for decades on the way to gold. (Broadbent, 2016)

The race will feature Caster Semenya, and many believe the sport's oldest world record might finally fall, which would prompt only more speculation about whether the playing field in the race was fair in the first place. (Maese, 2016)

Gold for Caster Semenya would be controversial, with the South African unbeatable since coming off testosterone-lowering medication last year. ("The 10 must-watch athletics events", 2016)

She is certain to become the most controversial athlete of the Olympic Games, just by running to her ability in tonight's women's 800m heats, which, based on her previous

performances this year, is well above the capacity of any other female athlete.

(Jeffery, 2016a)

The articles also made repeated references to Caster Semenya's victories in the past year and presented her wins as easily achieved to further strengthen the claim that her performance cannot be matched by 'normal' women.

When reporting Semenya's eventual victory in her event, statements such as, "it is not just her times but the ease with which she achieves them that inspire disbelief" and references to Semenya "winning her race in a jog" highlighted the manner of her victory to show that the gulf between Semenya's performance and what is considered to be within the realm of the achievable for 'normal female' athletes as unbridgeable (Hayward, 2016). Implicit in the repeated claims that Semenya could perhaps easily break Jarmila Kratochvílová's long-standing world record if only she wished to do so was the accusation that she was intentionally performing well below her real capacity. These recurrent comparisons are accompanied by the caveat that doping – though never proven – might explain Kratochvílová's outstanding performances and the longevity of her 800m world record. While such allegations against the former Czech runner are framed within the context of widespread doping in athletics, it still presents another instance of a female athlete whose exceptional performance continues to be apprehended with suspicion, based on implicit assumptions about the incompatibility of such athletic excellence with femininity. Such misgivings are also echoed in the persistent unproven allegations of doping that dog Dutch track and field athlete Dafne Schippers (McRae, 2016; PA Sport, 2015). However, in the case of these White European athletes, their performances are rendered problematic on account of (supposed) doping rather than their gender, indicating that race is central to the conceptions of femininity that are operationalised within the sporting context.

Connections were drawn between (alleged) hormone therapy and Caster Semenya's performance, with the articles attributing her victories almost exclusively to the positive effects of high testosterone levels. Not only did media speculate that she was asked to undergo hormone therapy, but also the observed dip in her performance between 2010 and 2013 was also attributed to these treatments. *The Telegraph* hinted at this, stating that "Semenya was in a shadowland between running at her full powers and trying to conform to the rules" (Hayward, 2016). *The Australian* noted that when the testosterone limit was being enforced, she "never approached her blistering 2009 pace (1:55.45)" (Jeffery, 2016a). The *Telegraph* noted that the testosterone limit adopted by the IAAF/WA "compelled Semenya, in effect, to take drugs to slow herself down" (Hayward, 2016).

The association between testosterone and enhanced athletic performance is so strong that it allows for logical leaps and easy slides of meaning evidenced in these articles. The link between elevated endogenous testosterone and enhanced athletic performance in intersex\* female athletes is presented as the incontrovertible truth, even as it is contested in CAS. This is exemplified in the following quote from Joanna Harper who states that "In my opinion, the least unfair solution is that if you want to be a female athlete, the key is testosterone. If your testosterone is below certain levels, we're going to let you compete as a female. But the IAAF still has to win that argument in the court by providing evidence that high testosterone levels do give an unfair advantage" (Jeffery, 2016a). Testosterone is framed as *the* male hormone and the implied connection between maleness, testosterone and athletic excellence is made explicit in some articles with statements such as this: "The IAAF experts decided that the best way was to set a threshold for testosterone, the male hormone" (Broadbent, 2016b). The discomfort with the presence of this 'male hormone' in female bodies is also evidenced in the



framing of testosterone beyond a certain level as being in the ‘male range’. *The Times* noted that that British athlete Paula Radcliffe had testified in the CAS that she “would have ‘genuine concerns’ about competing against females with testosterone levels in the *male range*” (Broadbent, 2016b). *The New York Times* also observed that the earlier testosterone limit imposed by the IAAF of “10 nanomoles per liter [was] considered [to be] at the lower end of the *male range*” (Longman, 2016a).

The conception of Testosterone as a male hormone, even though it is found in all bodies, works within the epistemic rules of a “two-sex” model and the concomitant “idea that each sex [has] its own specific sex hormone” (Oudshoorn, 1994, p. 22-23). But, even as early as the 1930s, this dualistic framework and consequent labelling of hormones as male and female sex hormones was contested by researchers on the basis of the hormones’ biochemical similarities, their interconversion in the body and their functional homologies (Oudshoorn, 1994). These challenges and attempts to reframe ‘sex’ hormones notwithstanding, Testosterone has been mythologised as *the* male sex hormone. It is posited as an efficacious biological causal agent for a host of ‘masculine’ behaviours and traits ranging from competitiveness to risk-taking and physical strength (Jordan-Young, Karkazis, & Durante, 2019). In the context of sport, such an understanding of Testosterone lends a seemingly scientific basis for the “advantage thesis” or the “hegemonic belief that male qualities are inherently superior to female attributes” (Henne, 2014, p. 788).

The belief that ‘normal’ female athletes could not match the performance levels of hyperandrogenic female athletes who derive competitive benefits from higher than normal endogenous testosterone also underlies suspicions that other top athletes in 800m – Francine Niyonsaba and Margaret Wambui – might also be intersexed. The Daily Telegraph noted that

“At last month's Monaco Diamond League meet, the first three runners past the line all had question marks over their gender”<sup>8</sup> (Gullan, 2016). The article in *The New York Times* reiterated these suspicions stating that: “Although not confirmed, questions have been raised about whether they also benefit from the raised levels of testosterone found in Semenya and which the International Association of Athletics Federations attempted – and is still trying – to outlaw in female athletes” (Longman, 2016a). The article further highlighted the supposed performance gulf between ‘normal’ female athletes and those who are intersexed stating that “If they do, then at least they will provide a degree of competition in the final which would otherwise be a total procession for a woman unbeaten over 800m this year and producing times almost a second faster than anyone else” (Longman, 2016a). These suspicions bolstered fears that there were effectively “two different races” within the women’s category (Lewis, 2016), and that hyperandrogenic female athletes would consistently outperform ‘normal’ female athletes in the absence of any regulations around testosterone levels in women’s events.

The following excerpt from the article in *The Sydney Morning Herald* illustrates the fears concerning intersexed athletes most clearly:

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<sup>8</sup> In 2019, Francine Niyonsaba revealed that she was also asked to undergo hormone therapy in accordance with the 2018 DSD policy, which implies that she also has 46XY DSD and higher endogenous testosterone than is permitted under the policy. This was the first clear confirmation that Niyonsaba had also been deemed to have intersex variations. In the same year, Margaret Wambui was also barred from competing in the Diamond League. This functioned as official confirmation that she also had been deemed to have intersex variations and hence was required to reduce her Testosterone level to be eligible to compete in restricted women’s events. Given that these confirmations only came in 2019, the 2016 reports which insinuated that Niyonsaba and Wambui were also ‘intersexed’ were purely speculative.

Joanna Harper is a member of a panel that advises the International Olympic Committee on gender issues and she believes intersex athletes could dominate certain events in Rio.

“I believe that it is not unreasonable to suggest that half of the eight-woman 800m final in Rio might well be intersex,” she has said. “And it is not unlikely that three presumably intersex women will sweep the podium”. (Webster, 2016).

To further substantiate the link between high endogenous testosterone and improved athletic performance, reports draw attention to Semenya’s results while largely ignoring the performance of Dutee Chand who was decisively outperformed by other athletes in her event at the very same Olympic Games. Pointing to this inconsistency, the Stanford bioethicist Katrina Karkazis noted in her statement to *The New York Times* that “If elevated testosterone provided an overriding competitive advantage, said, why did Chand, the Indian sprinter, not advance beyond the first round of the Olympic 100 meters?” (Longman, 2016b).

Within the circuitous logic used by media articles to posit a link between testosterone levels and athletic performance, Semenya is caught in a quagmire where her successes are attributed to testosterone and poor performance is taken to mean that she is indeed under hormone therapy. And, if her performances are sub-par even when no hormonal interventions are made, then it is claimed that she might be deliberately underperforming to allay any concerns. Studying Fallon Fox’s experiences in Mixed Martial Arts, Fischer and McClearen (2020) identify the key conundrum facing trans\* women in sport: the only way these women can prove their femininity is if they lose competitions to cis women. Their victories will only confirm assumptions of their natural athletic superiority and be read as proof of the unfairness of allowing them to compete with cis women. Reframing Fox’s defeats as “queer art of

athletic failure”, they see productive possibilities these losses hold to unsettle deep-seated cissexist and racist assumptions about the natural athletic superiority of (especially black) trans\* women (Fischer & McClearen, 2020). However, in Semenya’s case, the charges that she is deliberately underperforming functions insidiously to further the claim that she has unfair advantages over her opponents.

In this context, it is important to note that it was only in the court filings in relation to her 2019 appeal in CAS against the Hyperandrogenism Regulations that it was confirmed that she briefly underwent Hormonal intervention. However, even then the conclusion that her performance dipped due to a reduction in testosterone is contested by Semenya’s lawyers and medical experts who pointed to the side effects of the medical intervention and mental anguish as causes for her relatively poor performances. Despite this, Semenya’s athletic performances are explained on the basis of her testosterone levels which is presented as the accepted ‘truth’ in the media reports.

Statements from athletes are used to suggest that the sports’ governing bodies have a responsibility to institute some eligibility criteria to defend ‘normal’ female athletes. French runner Justine Fedronic was quoted as saying, “When you line up against someone like that, it's going to be a completely different ball game” (Mease, 2016). *The Telegraph* quoted British athlete Lyndsey Sharp seeking intervention from the IAAF/WA: “It is out of our control and [it shows] how much we rely on people at the top sorting it out” (Morgan, 2016). Even as it is the intersexed athletes who are constantly surveilled, publicly questioned about their gender and subjected to invasive medical tests and normalisation procedures which have resulted in psychological anguish and ended athletic careers, these articles suggest that it is the ‘normal’ female athletes who are actually under distress and unable to openly voice their

concerns. The following observation in *The Times* illustrates such a framing of the issue: “It is not hard to find rivals of Semenya to say that she does have an unfair advantage, but they usually want to remain anonymous for fear of looking insensitive” (Broadbent, 2016). In case of athletes who do not explicitly voice any objections to Semenya’s participation, their silence is itself read as their tacit support for having some form of eligibility regulations to ensure fairness in women’s athletics events, as evidenced in this excerpt from the Washington Post: “The silence couldn’t have been louder. On the track, runners stay in their own lanes. Off it, they’re even more careful” (Mease, 2016).

The persistent problematisation of Caster Semenya is also rooted in the “racist stereotypes of Blackness as “naturally” superior to Whiteness in sports generally and [in] women’s sports, in particular” (Fischer & McClearen, 2020). Such racialised understanding of athletic abilities underpins suspicions about other Black athletes such as Francine Niyonsaba and Margaret Wambui also being intersexed. A racial divide between athletes emerges in the media coverage as those who were quoted expressing their displeasure about having to compete against Semenya (and other possibly intersexed athletes) were White European or American athletes while those who were problematised were women of colour from the Global South.

The separation and distancing of Semenya from her White competitors in and by the media is illustrated with stunning clarity in the following photograph which accompanied *The Guardian*’s article on women’s 800m race at the Games. After Semenya’s win in the 800m run, British athlete Lyndsey Sharp (6<sup>th</sup> place) embraced Canadian runner Melissa Bishop (4<sup>th</sup> place). The photograph shows these athletes locked in a tight embrace – an expression of solidarity and recognition – from which Semenya is excluded. She is shown reaching out to them, but her gesture is not reciprocated while Sharp looks away from her avoiding eye

contact, thereby denying even minimal recognition or acknowledgement of Semenya's presence. This image, where Semenya is distanced from the other White competitors, exemplifies the ways in which media coverage constructs a racial divide between athletes even as the concern that is overtly expressed is with Semenya's gender and the supposedly unfair athletic advantages that she possesses.



(Lacerda, 2016)

The decision by CAS to suspend the Regulations is effectively presented as a non-decision with repeated references to the IAAF/WA's intention to challenge the suspension. Statements from athletes such as Oskan-Clarke who noted that “[i]t’s obviously a really hard decision – which is why there hasn’t been one” further reinforces this (Hayward, 2016). Even though Semenya was legally allowed to compete without any medical interventions, the legality of this decision is still presented as contingent and problematic. This attitude is summed up in the following quote by the IAAF/WA president Lord Sebastian Coe: “Collectively as a sport

we were surprised by that decision. I think the IOC was too and many other federations are alongside us” (Broadbent, 2016).

News reports also explicitly presented this discussion on inclusion in sport as a tension between the human rights of intersex\* female athletes and the rights of “normal” female athletes to a fair competition. Focusing on this tension, the USA Today proclaimed in its headline that “...Human rights, athletic fairness [are] at issue” before going on to note that “‘This is a huge human rights victory,’ intersex studies expert Joanna Harper tells *USA Today Sports*, ‘but sports, not so much’” (Gleeson & Brady, 2016). This separation between intersexed female athletes and ‘normal’ female athletes is reiterated in the following excerpts from *The Australian* (2016):

On one side stand the social justice advocates who believe the CAS ruling was a victory for a minority who have been subject to enormous societal discrimination throughout history. On the other stand sports experts and female athletes who see the playing field suddenly slanting away from the majority of women, towards a minority who have some of the physical advantages of men. (Jeffrey, 2016a).

“‘Who are you trying to be fair to?’ she [Joanna Harper] told *Sports Illustrated* last week. Are you trying to be fair to billions of potential female athletes? Or are you trying to be fair to a very small minority of people who live a truly marginalised existence?’” (Jeffrey, 2016a).

This seeming opposition is highlighted again in British athlete Paula Radcliffe’s quote to *The Australian* that “Finding a solution where nobody gets hurt is pretty much impossible” (Magnay, 2016).

These discussions in the media set up sport as a field where any politically informed intervention with respect to human rights and inclusion can adversely impact ‘fairness.’

Attempting to absolve Semenya of personal culpability even while problematising her participation, it is noted that she is “caught in the vice between gender politics and the traditional definition of female sport” (Jeffery, 2016a). This statement implies that the “traditional definition of female sport” is outside of gender politics, and hence, any intervention to redefine this category is seen as political, while the ‘traditional definition of female’ is naturalised by masking its contingent and constructed nature. Expert commentary on the complexities of assigning sex and conclusively determining the impact of a single factor, like testosterone, on athletic performance is used to highlight the challenges of balancing competing interests. Within this calculus, it becomes not only unavoidable but also necessary to discriminate against some to preserve the rights of many.

### **6.11. Considerations of Fairness**

Media articles following the IAAF/WA’s announcement of new regulations in 2018 engaged more directly with the notion of fairness in sport and the challenges of ensuring a level playing field for all competitors. Following the IAAF/WA’s own statements, news reports framed the new Hyperandrogenism Regulations as “an effort to address questions about fair play” and ensure “fair and meaningful competition within the female classification” (Longman, 2018). The acknowledgement that “biological sex is not nearly so neat and binary” (Longman, 2018) is followed by a reiteration of the need to have separate male and female competition categories in sport and the concomitant need to regulate entry into these categories in the interest of fairness. *The Times* also quoted researcher Joanna Harper who expressed similar concerns: “In a world where there is not a clear division who is a man and who is a woman, we have to have a criterion for separating male and female athletes” (Broadbent, 2018a).



South African media noted that the regulations were implicitly targeted at Caster Semenya since the list of restricted events included those that Semenya specialises in. Mobilising around Semenya, the ASA said they would fight legal battles; and also highlighted the support shown for Caster Semenya on various social media platforms. The IAAF/WA president Sebastian Coe, however, was quoted as reiterating that the “regulations are "in no way intended as any kind of judgment on, or questioning of, the sex or the gender identity of any athlete.”” Pointing to the untenability of such a distinction between the IAAF/WA’s intent and the effects of its judgements, Alice Dreger noted in her article for *The New York Times*, “How does telling a woman she can’t play as a woman, but “assuring” her that she might be able to qualify to run in the men’s race, not judging her gender identity or sex?” (Dreger, 2018).

There were some variations in what the articles presented as evidence for the link between hyperandrogenism and enhanced athletic performance: some referred to the study by Stéphane Bermon and Pierre-Yves Garnier while others presented the supposed overrepresentation of intersexed athletes at top levels as sufficient evidence. While it is acknowledged that actual evidence linking high endogenous testosterone to athletic performance is tenuous and “contrite” at best, it is still implied that further research will provide more substantial evidence to this effect. Recapitulating fears that intersexed female athletes might dominate women’s athletics events, some articles noted that while Semenya is the most well-known case, the actual number of intersexed athletes might be much higher. Focusing on testosterone and its effects, the discussion expands to include transgendered athletes to emphasise the need for testosterone limits in women’s category.

Some articles presented a more critical evaluation of the regulations, pointing out that they raised significant human rights concerns. *The Times* quoted Dr Ross Tucker who pointed to the inadequacies in the evidence stating that: “There could be a legal challenge. The IAAF is saying there is a 9 per cent performance advantage, but that is theoretical” (Broadbent, 2018b). Some articles explicitly pointed to the gendered double standards inherent in regulating some natural variations while others were widely celebrated. Reframing the discussion on fairness by highlighting other athletes with natural advantages, Antonia Senior in her piece for *The Times* asked: “Is Michael Phelps actually a fish? ... If Semenya does have male chromosomes, so what? What exactly is the ethical difference between Phelps’s marlin-like qualities and her masculine ones?” (Senior, 2009). However, even such supportive statements function within a framework where elevated testosterone levels are understood as masculine.

*The New York Times* also noted that “the truth is that no elite athlete’s body can be called fully “typical” in a statistical sense, and every other type of inborn advantage is allowed in sports. You can be born with natural advantages in terms of muscle development, oxygen processing, vision — all of those are allowed, without question” (Dreger, 2018). *Washington Post* quoted Chris Mosier, a transgender triathlete and duathlete, calling out the gendered double standard: “We cannot overlook that Caster Semenya is the specific target here. I’ll file this under racism, as well as sexist ideas of how a woman can look. The message? Female athletes: you can be strong but not too strong” (Chiu, 2018). Further, articles speculating on cultural and medical reasons for higher rates of intersex conditions in certain areas have racial overtones. As noted earlier, such references to race in relation to intersex variations echo arguments from 18th-century racial biology about clear sexual differentiation being a trait of the more evolved races (Bederman, 1995). This is evidenced in the following excerpt:

Harper also ventured into the sensitive areas of geography and race and said intersex conditions, or differences of sexual development (DSDs), are more prevalent in remote areas of developing countries because of small gene pools. “The scientific term is ‘consanguinity’; the non-scientific name is ‘inbreeding’. There used to be a host of European and American intersex athletes because it was common to marry your cousin — Charles Darwin married his first cousin. That has changed over time but there are parts of the world where it is still common and preferred” (Broadbent, 2018a).

As these discussions indicate, the notion of fairness that is generally taken for granted by sports’ governing bodies are being questioned by athletes, bioethicists and sports administrators. However, with respect to eligibility regulations for the female category, the issue is still presented as one of irreconcilable differences between the rights of intersex\* female athletes and ‘normal’ female athletes.

## **6.12. Conclusion**

By highlighting instances of athletes being subjected to medical investigations to establish their gender, media reports construct women’s athletics as a threatened category in need of regulations to ensure fairness. In speculating about the athlete’s gender, these reports not only violate athletes’ privacy by recounting details of medical investigations, but such media coverage is a form of surveillance as athletes are subjected to public scrutiny and judgement. The analysis of media coverage of Santhi Soundarajan, Caster Semenya and Dutee Chand indicate some consistent patterns in how these athletes are constructed in the media as threats to women’s sport. Their athletic achievements are either side-lined relative to questions about their gender or presented as evidence of the insurmountable advantages they hold over ‘normal’ female athletes.

The division between these athletes and ‘normal’, usually White, athletes’ is further exacerbated in articles that highlight ‘normal’ athletes’ concerns about having to compete with ‘masculine’ female athletes who might have advantages over them. Repeated references to the athlete’s nationality and attempts to explain the higher prevalence of ‘intersex conditions’ or gender ambiguity in certain parts of the world function as coded references to race. Such media coverage that consistently separates these athletes from those deemed ‘normal’ contributes to their construction as threats to women’s sport and therefore in need of normalisation. While the scientificity of the gender testing procedure is highlighted, most articles do not provide any details of the process, or even the specifics of the Eligibility Regulations which limits discussion on the logic underpinning them while positioning medical experts as those with a legitimate say in the matter. When the Regulations are scrutinised more critically, the criticism is limited to how they have been enforced in particular instances with disregard to athletes’ privacy. This implies a tacit agreement with the need for some form of regulation to police entry into women’s events.

Over time, media coverage about gender testing in athletics expanded to include more general questions about society’s treatment of those who do not fit gender norms, sparking discussions about the need for respecting their human rights. Additionally, with time, there were discernible changes in the way that these athletes were identified in the media and consequent differences in the way they were problematised. From suspicions that these athletes were actually ‘men’, as was seen in Soundarajan’s case, they come to be identified as ‘intersexed’, which complicates a simplistic binary understanding of sex/gender. However, sport is still constructed as an exceptional realm where determining ‘sex’ is important as intersex\* women present threats to fairness in women’s sport. While early reports do not overtly engage with the question of fairness, the accepted understanding of fairness in sport is

interrogated in articles that followed IAAF/WA's announcement of new regulations in 2018. This discussion, however, is framed within the understanding of hyperandrogenism as an abnormal medical condition in need of treatment. When the rights of hyperandrogenic athletes are discussed, it is still set in opposition to the rights of normal women. Framed within these considerations, it becomes necessary – even if unfair – to discriminate against hyperandrogenic women to ensure fairness in women's sport.

Media speculations about an athlete's gender also operate within a broader social context where non-binary bodies are stigmatised; hence such publicity is not just an invasion of privacy, but its implications extend beyond athletes' ability to participate in their sporting events. Soundarajan, Chand and Semenya have all attested to the ways in which publicising suspicions about their gender impacted their personal and professional lives. Recounting her experiences, Soundarajan said that "I am treated as a social outcast, even in my own local place," ("Semenya 'Must Not Be Humiliated,'" 2009). The lack of a clear pathway to return to athletic competition not only impacted Soundarajan's athletic career, but it also affected her employment which was contingent on her sporting career. Sustained scrutiny and discrimination engendered by media speculations about her real gender and consequent discrimination and stigmatisation also caused her acute mental distress, eventually resulting in her attempting to take her own life in 2007 ("Athlete Santhi", 2007). IAAF/WA's acknowledgement that they had put Caster Semenya on suicide watch after the Berlin World Championships in 2009 attests to the severe psychological distress and harm caused to the young athlete by the media maelstrom caused by revelations that she would be subjected to gender tests (Sreeraman, 2009).

In an eerie replay of what Semenya and Soundarajan were subjected to, Dutee Chand also recounted experiences of being “examined by male doctors; of being asked about her menstrual cycle, body hair and hobbies; of feeling “abandoned, insecure and helpless”; of the letter from the Indian Athletics Federation saying that hyperandrogenism cases brought “shame” to Indian sport; of other discarded athletes who had become suicidal (Broadbent, 2016). Following revelations that SAI and AFI had asked for medical investigation, the environment at the national training camp was too hostile for Chand to continue training there. Under these circumstances, she had to move cities and shift her training base to a Badminton Academy in Hyderabad which offered her a more supportive environment. These broader repercussions are not adequately accounted for in legal calculations of the harm caused to athletes by the enforcement of Hyperandrogenism Regulations which attempt to divorce the broader social context from the instances of application of these regulations.

## Chapter 7. Resisting the Eligibility Regulations: Legal Challenges

Eligibility Regulations that govern entry into women's sporting events are justified as necessary measures for ensuring fairness or fair competition. While the 2011 hyperandrogenism policy and the 2018 Differences in Sexual Development policy define 'relevant' athletes in slightly different ways, they share two key factors: both claim to protect women's sport and both presuppose the relative athletic superiority of men. Implicit cultural assumptions that underwrite these Eligibility Regulations were made explicit and subjected to legal scrutiny when athletes challenged them in the Court of Arbitration for Sport (CAS). The following chapter presents an analysis of the court proceedings in *Dutee Chand v. Athletics Federation of India (AFI) and IAAF*, and *Caster Semenya and Athletics South Africa (ASA) v. IAAF*. The analysis begins by situating CAS within the sprawling bureaucratic apparatus of modern sport and examining the implications of CAS' relationship with sports' governing bodies for its functioning as a (quasi-)legal entity. The judgements from these two cases are then analysed to develop an understanding of how the tensions between competing legal imperatives and ethical values when regulating entry into women's sports category is framed and eventually resolved.

Through the course of the court proceedings, the available scientific evidence linking testosterone to athletic performance is subjected to expert scrutiny, with the understanding that accurate medical knowledge on the matter can establish the appropriateness and therefore the legality of regulating entry into women's sports category. However, these medico-legal debates are still structured by the dominant sex/gender discourse in that testosterone is predominantly understood as a 'male' hormone that can effectively enhance athletic performance. More nuanced understandings of sex/gender differences and the complexities of the functioning of hormones in the body are presented by expert witnesses for Chand and

Semenya. As competing scientific explanations are presented as the case unfolds, the legal authority of CAS is called upon to resolve this indeterminacy which attests to the mutually constituting nature of disciplinary and juridical forms of exercise of power. Further, the CAS panel's evaluation of the Eligibility Regulations in relation to the human rights recognised by the United Nations and the court's understanding of whether these Rights are applicable to the relationship between athletes and sports' governing bodies will be analysed. This analysis will focus not only on the practical and procedural aspects of enforcing human rights regulations in women's sport, but also examine the challenges and limitations of opposing the exercise of disciplinary and governmental power by claiming rights (Foucault, 2003).

### **7.1. CAS and the Emergence of 'Lex Sportiva'**

The legal challenges against the Eligibility Regulations were filed in the Court of Arbitration for Sport (CAS), the global apex body for sports-related arbitration. The Lausanne-headquartered CAS was established in 1983 and funded by the International Olympic Committee (IOC), which also retained significant administrative control over the court through the appointment of members to the pool of arbitrators. This Court was initially perceived to be the legal arm of the IOC: at the time, some of the other International Sporting Federations had their own panels for arbitration. In its initial years, CAS presided over only a handful of cases, indicating that the need for a specialised sports court was likely overstated (Casini, 2011; Lindholm, 2019, chapters 1–2). The perceptions surrounding CAS and its role changed beginning in the mid 1990's with the wide-ranging bureaucratic reforms and funding changes that were initiated in response to the Swiss Federal Court's ruling that CAS was not sufficiently separated from the IOC to qualify as an independent arbitral body (Casini, 2011; Lenskyj, 2018).



Distancing itself from the tribunal and giving it a degree of fiscal and organisational freedom, the IOC instituted the International Council for the Arbitration of Sport to oversee the administrative aspects of CAS. As these measures inserted some protective distance between the IOC and CAS, the court came to be considered a sufficiently independent body capable of functioning effectively as an arbitrator. In the decades following these reforms, CAS has gained wider recognition and acceptance from other International Sporting Federations and matured into a pre-eminent global tribunal for resolving sports-related disputes (Casini, 2011; Lindholm, 2019, pp. 31–41). CAS addresses the practical need for a central (quasi-)legal entity with a unified set of norms and standardised procedures to preside over a globally dispersed and diverse set of sports governing bodies. Deriving its legal standing and legitimacy from a (presumed) broad-based consensus within the sporting world, CAS is said to provide a degree of certainty and predictability in arbitration proceedings. However, such a claim to consensus is dubious, as athletes are effectively forced into arbitration in CAS by relevant clauses included in sports policy documents and codes, such as Article 74 of the IOC Charter (2019) and Article 20.1 of the IAAF constitution (2017). Further, claims of standardisation and predictability are tenuous at best since CAS is not precedential, so its arbitration panels are not bound by the precedents set by previous judgements (Lenskyj, 2018).

Operating in the liminal space between public and private law, CAS has played an instrumental role in developing a global ‘lex sportiva’ – a corpus of legal norms and procedural frameworks specialised to deal with sporting issues. The need for such specialised sports law expertise is premised on the notion of “sports exceptionalism” – the claim that sport is unique and separated from surrounding socio-political concerns and should hence not be subjected to the same social norms and regulations (Casini 2011; Lenskyj 2018; Lindholm

2019, chapters 1–2). CAS represents the culmination of this argument for exceptionalism of sport in the legal realm. The legal authority vested in CAS accords protection for sports' governing bodies from national laws and even international legal conventions (Baddeley, 2020). Though sports' governing bodies operate like profit-making businesses and wield significant authority over the community of athletes, within the legal sphere, they neither qualify as states nor are they always formally recognised as employers. If presenting a legal claim entails expressing experience in a legally recognisable language (Smart, 1990, pp. 197–198), then athletes' grievances are lost in translation.

Any battle in CAS between individual athletes and sports' governing bodies is inherently unequal: not only are the institutions better financed and resourced, but they can also rely on knowledge gained from previous dealings with CAS to better navigate the system. Even though the IOC has set up the notionally independent body, ICAS, to oversee the funding and administration of CAS, the Committee still exercises some influence over the functioning of the Court by appointing members to the pool of arbitrators. Given these imbalances, the CAS, like any arbitral court, disadvantages the individual relative to national and global institutions (Lenskyj, 2018; Casini, 2011). Athletes' participation in sport is made conditional upon their acquiescing to the arbitration of disputes by CAS (Lenskyj, 2018), and the European Court of Human Rights (ECtHR), in its ruling in *Mutu & Pechstein v. Switzerland* in 2015, acknowledged that this raised questions about the 'voluntary' consent of athletes. While expressing concerns regarding the presumption of consent and CAS' claim to fiscal and operational independence, courts like the Swiss Federal Tribunal and the ECtHR have nevertheless upheld the validity and necessity of a centralised arbitration tribunal like the CAS. Bowing down to the contingencies of administration, the ECtHR noted that "a unitary arbitral tribunal for sports-related matters can contribute to the further development of

international sports law” and result in expedited resolution of disputes “which is crucial for the athletes given the tight calendar of scheduled sporting events” (Ehle & Guiaia, 2016).

Even though athletes are effectively forced into arbitration of disputes, there are some limited legal remedies available in that athletes who are dissatisfied with CAS rulings can appeal against these decisions in the Swiss Federal Court which exercises jurisdiction over CAS; some decisions by CAS, mostly those relating to the application of doping regulations, have also been challenged in State courts. While this offers an opening for athletes to challenge CAS’ sole authority in legislating on sporting disputes, Swiss courts have been reluctant to challenge CAS rulings, citing technical jurisdictional concerns (Baddeley, 2020). The advantage held by International Sporting Federations and Olympic Committees relative to athletes extends beyond access to better financial and institutional resources. CAS functions with documents such as the World Anti-Doping Agency (WADA) code, IOC and IAAF/WA constitutions as its de-facto constitutions, effectively judging particular policies and decisions under question on the basis of their compliance with higher-level regulations and principles expressed in these documents. So, the governing bodies effectively set the terms within which legal debates on policy matters can be articulated, thereby limiting the kinds of legal challenges that can be posed to their authority. Without the mandate to make substantive judgements about the content and legality of the policies adopted by sports governing bodies, CAS is reduced to legislating more narrowly on matters of appropriate application of these regulations.

The proceedings from Dutee Chand and Caster Semenya’s cases highlight fundamental problems with the existing legal apparatus for defending athletes’ interests. Deferring to the IAAF/WA’s authority to develop policy measures to administer the sports under its purview,

the CAS panels did not question the criteria used to create a dichotomy between permissible and impermissible kinds of natural advantages. CAS panels did not engage substantially with defining the notion of ‘fairness in sport’, thereby judging the regulations on the basis of the standards set by the regulations themselves. While acknowledging the potential for harm to athletes in the implementation of these regulations, CAS still upheld them, stating that the problems that were almost certain to arise from the application of the regulations could later be contested individually by affected athletes. By individualising the ‘relevant’ athletes and privatising their concerns, the CAS forecloses the possibility of these athletes articulating their claims as a unified, legally recognised class. Rather disquietingly, CAS does not engage with the IAAF/WA’s claim of being immune to UN’s Universal Declaration of Human Rights as it was not legally a state. Overall, CAS’ final ruling in Caster Semenya’s case demonstrates its refusal to consider the implications of sports policies and acknowledge that these policies are entangled in a reciprocal relationship with broader social and cultural politics.

## **7.2. Legal Arguments: Unfair Discrimination**

Eligibility Regulations were challenged in the CAS for unfairly discriminating against female athletes with certain natural characteristics (*Chand v. AFI & IAAF*, 2014, p. 2; *Semenya & ASA v. IAAF*, 2018, p. 2). In the absence of a similar set of tests or eligibility criteria for male athletes, they exposed only female athletes to an additional layer of medical scrutiny and compliance measures. The genetic variations targeted by the Eligibility Regulations are mostly medically benign and not radically different from myriad other genetic variations, some of which have been shown to provide athletes with significant competitive advantages (*Semenya & ASA v. IAAF*, 2018, p. 33–34). These regulations also subtly discriminate on the basis of race. Professor Bruce Kidd, the then Vice President of the University of Toronto and

an expert witness for Dutee Chand, noted in his letter to CAS that “to date, it [the Regulation] has only been used against women from developing countries” (*Chand v. AFI & IAAF*, 2014, p. 6). Semenya’s submission also highlighted the racial dimension of the regulations as they “indirectly differentiate on the basis of race, ethnicity and/or social origin, since they disproportionately affect women of colour and athletes from the Global South” (*Semenya & ASA v. IAAF*, 2018, pp. 47–48). Given these considerations, Chand and Semenya argued in their appeal that the Regulations were arbitrary, discriminatory on the basis of sex and disproportionate in relation to their stated end of ensuring fairness in women’s sport.

When responding to Caster Semenya and Athletics South Africa’s challenge against the 2018 DSD Regulations, the IAAF/WA changed the definition of ‘relevant athlete’ in its filing. While the policy document designates ‘relevant athletes’ as females with 46XY DSD, the court filings referred to them as “biologically male” athletes with female gender identity. This enabled the IAAF/WA to bolster its defence of the Eligibility Regulations against charges of unfair discrimination: if the ‘relevant’ athletes were not women, then treating them differently in relation to other women would not be unfair discrimination but a necessary differentiation. Caster Semenya resisted this label of a ‘biological male’ as obviously discriminatory, disrespectful of her gender identity and a violation of her right to gender self-identification guaranteed under the Universal Declaration of Human Rights by the United Nations. The IAAF/WA in turn highlighted the suggestion included in the 2018 DSD policy that these athletes could compete as men if they did not desire to undergo intervention to reduce testosterone: The 2018 DSD policy holds that a ‘Relevant Athlete’ who does not meet the eligibility criteria or refuses to submit to medical testing and treatment “will be eligible to compete ... in the male classification at all competitions ... including the Restricted Events” (IAAF, 2018, p. 5). However, such a change in gender classification would not only be at

variance with the athlete's gender identity but would also render the confidentiality measures included in the 2018 policy moot by exposing concerns about the 'true' sex/gender of the athlete leading to public speculations and potential stigmatisation.

In Dutee Chand's case, the IAAF/WA admitted that the 2011 hyperandrogenism policy was prima facie discriminatory on the basis of sex, but it did not violate higher order principles of the IAAF/WA constitution and the IOC Charter since the principle of non-discrimination or equal treatment "permits differentiation between objectively different situations where such differential treatment is necessary to protect fair competition" (*Chand v. AFI & IAAF*, 2014, p. 33). Such an argument draws on and furthers the separation between athletes such that Dutee Chand and Caster Semenya can be treated differently from 'normal' female athletes in the pursuit of fair competition. In its judgement, the CAS observed that while the IAAF/WA's regulations may have been enacted in good faith, given the paucity of scientific evidence it could not be proven that they were necessary and proportionate. In its final ruling in Caster Semenya's case, CAS noted that the "[r]egulations are discriminatory but that on the evidence currently before the Panel such discrimination is a necessary, reasonable and proportionate means of achieving the aim of what is described as the integrity of female athletics" (*Semenya & ASA v. IAAF*, 2018, p.160).

The racist implications of the 2011 policy that were highlighted by Chand's experts were neither addressed by the IAAF/WA in its submissions nor considered by the CAS in its judgement. In *Semenya & ASA v. IAAF* (2018), the IAAF/WA's medical experts asserted the discrimination inherent in the 2018 DSD policy pertain to gender and not race as "DSD occur among all races and ethnicities", but the regulations *appear* to impact athletes of colour since they are overrepresented at the elite level (p. 160). In countering allegations of racism, the

IAAF/WA draws on and reinforces racial stereotypes about black athleticism to defend its policy. The CAS, again, does not address these arguments or take into consideration the potentially racist effects of 2018 DSD policy in its judgement. CAS' refusal to engage with issues of racism ignores the inseparability of 'race' and 'sex' and the assumptions about race that are implicit in the IAAF/WA's construction of the category of the 'female' athlete.

The CAS panel's judgements regarding discrimination also highlight the problems with the underlying conception of equality as equivalence which results in the legal mandate to treat "likes alike and unlikes unlike" (MacKinnon, 1987, p. 32). The athletes' claims that they are discriminated against is rendered legally untenable since the IAAF/WA is successful in instituting a divide between female athletes with hyperandrogenism and normal female athletes: since female athletes with hyperandrogenism are shown to not belong in the category of normal female athletes, treating them differently does not amount to discrimination. Sexual differences (and in this case differences between 'normal' female athletes and female athletes with hyperandrogenism) are understood as anterior to and forming the basis for social construction of differences. Therefore, regulations that treat these groups differently are not seen as unfair discrimination but as a recognition of these pre-existing differences – an attempt to make legal norms fit empirical reality (MacKinnon, 1987). Further, this approach to ensuring equality also cannot account for situated inequalities that impact particular groups of people, which is evidenced in the CAS's inability to factor in the discrimination faced by intersex\* women in society – beyond the narrow field of sporting competition under consideration in the cases – in their assessment of the necessity of hyperandrogenism regulations and the proportionality of its effects to its stated aims.

### 7.3. Questioning Fairness in Sport

The Eligibility Requirements are justified as a means of ensuring fairness so that no athlete has an (in principle) insurmountable advantage over others within the same competition category. Regulating athletic advantages requires the articulation of a coherent ethical stance that distinguishes between permissible advantages and unfair advantages. It also necessitates a clear definition of the purpose of sporting contests and the characteristics and abilities they are intended to test for. Artificial means of gaining an edge are generally regulated as they are seen to go against the spirit of sport by short-circuiting the requirement for hard work. Anti-doping regulations that outlaw the consumption of performance-enhancing drugs are premised on this underlying rationale, as are the regulations pertaining to the use of technological innovations in sport. Natural advantages, even rare and unusual genetic variations that enable athletes to perform exceptionally well, are generally considered compatible with fairness. Intimately connected as they are to the athlete's capabilities and their being, these characteristics provide raw potential which still has to be harnessed through appropriate training to be actualised into athletic success.

This articulation of natural with fair and artificial with unfair breaks down in the case of Eligibility Regulations targeted at intersex\* female athletes who derive their purported competitive advantages from natural factors. Other natural advantages are not regulated against, while 46XY female athletes with naturally high endogenous testosterone levels are required to reduce their testosterone levels to be eligible to compete with other women. Sustaining a rigorous and qualitative distinction between DSD and other genetic variations is not scientifically tenable, but it is maintained on the basis of “rigid binary ideas about sex and gender” (*Semenya & ASA v. IAAF*, 2018, p. 20). Highlighting the inconsistencies and dissonances in the way natural advantages are regulated, Dutee Chand noted that “I should be



allowed to compete with other women, many of whom are ... taller than me ... that most certainly give them an edge over me” (*Chand v. AFI & IAAF*, 2014, p. 8). Caster Semenya also advocated for a qualitative shift in the framing of DSDs noting that “[t]he world celebrates the genetic differences that make athletes such as Usain Bolt, Michael Phelps and Serena Williams great. DSD are a form of genetic difference that should be celebrated in the same way” (*Semenya & ASA v. IAAF*, 2018, p. 10).

DSDs are not qualitatively different from other genetic variations and polymorphisms that have shown a measurable impact on athletic performance. Other genetic variations that also impact athletic performances were highlighted by Dr Alun Williams, the Director of the Sports Genomics Laboratory at Manchester Metropolitan University, in his witness statement for Caster Semenya. It was noted that variant of ACTN3 gene had shown measurable improvements of “2-3% and probably much less” in sprint/power performance. “Mutation in MSTN gene dramatically increase muscle mass, while mutations in the EPOR gene can dramatically increase the production of red blood cells” resulting in improved athletic performance (*Semenya & ASA v. IAAF*, 2018, p. 33).

This incoherence and gendered double-standard in the regulation of natural advantages points to the tensions inherent in the conception of ‘fairness’ in sport and the understanding of the distinction between permissible and impermissible advantages. For sports’ governing bodies, guaranteeing a level playing field functions as an important aspirational ideal, but it is not achievable in practice as myriad different advantages that athletes have cannot be nullified: “The influence of genetics means that sport is not fair in the sense that the greatest commitment and effort will not necessarily entail the greatest sporting success. On one view, therefore, elite competitive sport is effectively a search for genetic outliers” (*Semenya & ASA*

v. *IAAF*, 2018, p. 33). Athletes are already competing against other elite athletes “with a similar magnitude of aggregate genetic advantage that distinguishes them, as a group, from the vast majority of the general population” (*Semenya & ASA v. IAAF*, 2018, p. 33).

Nevertheless, fairness or “fair play” holds potent symbolic value within and outside sporting culture; it is not just a precondition for sporting contests but also acknowledged as the moral value embedded in sport. The Olympic Charter (2019) lists “fair play” as a fundamental Olympic principle and states its mission to ensure that “in sport, the spirit of fair play prevails” (p. 16). In addition to placing expectations on the organisers to ensure appropriate conditions for ‘fair play’, the Olympic Code of Ethics (2016) also obliges participating athletes to not “infringe [on] the principle of fair play or show unsporting conduct” (p. 16, art 10). The IAAF/WA (2017) constitution also expresses its commitment to organising events “in the spirit of friendship, solidarity and fair play” (p. 6, sec. 4). While presenting ‘fair play’ as the underlying essence of sport and the guiding principle of the administrative endeavours of the IOC and IAAF/WA, these documents do not explicitly define what constitutes fair play.

Grappling with the complexities of defining an intangible ideal, the International Fair Play Committee presents an exhaustive list of qualities to delineate ‘fair play’ (Fair Play, 2015). It encompasses a host of foundational values including integrity, respect, solidarity, equality; it is used to describe an even-tempered, distanced orientation towards sporting activity. Derived from the values of amateur sporting tradition, it corrects for the overvaluing of competition and attempts to mitigate the tendency towards intensified commercialisation and consequent instrumentalisation of athletes in contemporary sport. For professional athletes, fair play provides a normative moral framework – albeit a nebulous one – to guide their comport

within the sporting arena which is poised between the opposing poles of intense competitiveness and reciprocal compassion.

The enigmatic ideals of fair play exert powerful normative influence that cuts across sporting disciplines. Sports governing bodies are expected to honour the tenets of fair play by engaging more critically and reflectively with their process of formulating and enforcing regulations while also considering the impact of these tenets on athletes. For practical purposes of regulation, fair play is oversimplified to mean ensuring competition under conditions of equality. In reducing the ideals of 'fair play' into the more actionable tenets of 'fairness or fair competition,' sports governing bodies also narrowly focus on the field of competition while obscuring inequalities in other adjacent areas that can significantly influence sporting outcomes. Achieving excellence in sport requires consistent monetary support and access to expertise. Such assistance provided to athletes from countries with well-funded long-term athlete development programmes is obscured in dominant narratives of sporting success which focus on individual effort. Dutee Chand's observation that she has to compete with athletes who "come from more privileged backgrounds, things that most certainly give them an edge over me" astutely identifies the inconsistencies and erasures that underpin the accepted notion of fairness in sport (*Chand v. AFI & IAAF*, 2014, p. 9). Caster Semenya also demands an expansion of the notion of fairness to account for the challenges faced by DSD athletes outside of the arena of competition. This shift in emphasis from competition to other factors highlights systemic disparities in access to resources that are not conventionally registered as the lack of fairness.

A more comprehensive conceptualisation of fairness, which goes beyond the narrow focus on the field of competition and the assessment of individual physiological characteristics can

account for these sociological factors that impact athletic performance. Limiting attention to just the realm of competition contributes to the erasure of training conditions, structural support and other factors that impact sporting success, which strengthens dominant narratives about the sporting success which focus on individual talent and effort. Fairness in sport is taken to symbolise a free and fair society – a society in which individuals can succeed and move up socio-economic ranks through concerted efforts, irrespective of their circumstances (Brohm, 1978/1989). Within this symbolic economy, there is little recognition of inequalities or factors beyond an individual athlete's control that could impact their progress; openly acknowledging the effects of systemic factors would fracture the causal link that is posited between individual effort and success.

The hitherto accepted notions of fairness and permissible athletic advantages are brought up for reconsideration when the 2011 Hyperandrogenism policy and 2018 DSD policy are challenged in CAS. The CAS, however, is unresponsive to athletes' demands to examine the underlying conception of fairness used to justify these regulations. Rather than (re)define 'fairness' substantively to evaluate the validity of the Regulations being contested, the Court relied on the notion of fairness implicit in the IAAF/WA code of competition and IOC constitution. Functioning with a minimalist, reductively simplistic notion of fairness as 'fair competition' or 'competition on a level playing field', the CAS strategically shields from close scrutiny the tensions and contradictions inherent in the ultimately unattainable ideal of 'fairness'. So, the Court of Arbitration for Sport's calculated disengagement with this intractable dispute serves to preserve the prevailing minimalist understanding of 'fairness' which equates it with competition under conditions of equality. This also allows for continuing surveillance and control of intersex\* female athletes which comes to be seen as necessary for ensuring fairness.

Bodies that do not neatly fit into the pre-ordained categories of male and female call into question the underlying assumptions about gender and the gendered distribution of athletic capabilities. Re-examining the notion of fairness in relation to this challenge would entail questioning the cultural meanings associated with masculinity and femininity and the categorical logic that governs the compulsory sex-segregation of sports events. However, the contestation over the meaning of 'fairness' in competitive sport cannot be pursued to this radical end within the confines of the courtroom. Bound as the CAS is by the IOC's and IAAF/WA's codes and constitutions, its role is limited to clarifying if the Entry Requirements are necessary to ensure fairness, as already understood by the sports' governing bodies. The silence on 'fairness' enables the tension occasioned by athletes who resist neat categorisation within the gender binary to be posed as a medical problem to be resolved by subjecting problematic athletes to normalising treatments. Such problematisation of non-normatively gendered bodies, rather than examining the existing sporting structures that problematise them, preserves assumptions about the essence of sporting activity and its related institutional structures. Questioning this tacit definition of fairness can enable a more thorough critique of the current consensus on the meaning and purpose of institutionalised sporting activity and its institutional structures. However, the scope for effecting this redefinition through legal challenge is limited.

The complicated history and specificities of CAS as a (quasi-)legal body notwithstanding, CAS's judgements in the case of Chand and Semenya are indicative of the mutually constitutive relationship that the legal mechanisms share with the broader power relations at play. While notionally regarded as an entity that exercises legal supervision over the functioning of sports governing bodies, in practice, CAS's overseeing function is limited to adjudicating on the correct application of the policies adopted by the IAAF/WA. This

delimitation of CAS' authority is explicitly articulated in the 2018 DSD policy which only allows athletes to contest the application of the policy but not the legality or the necessity of the regulations themselves. This is also borne out in the judgements delivered by CAS in these cases where the CAS panel defers to the authority of the IAAF/WA to enact regulations and govern athletes in accordance with these regulations. Sports governing bodies' power to organise the field in accordance with the "true order of things" is thus left intact (Golder & Fitzpatrick, 2009, pp. 66).

#### **7.4. Legal Problems, Medical Solutions**

When attempts at disciplinary normalisation come up against challenges, medical knowledge is used as a "sort of arbitrating discourse" as it "has been rendered neutral because its scientificity has become sacred" (Foucault, 2003, p. 39). Normative medical knowledge is used to resolve vexatious legal and ethical issues relating to social control, and medical experts are privileged within the legal system. This recourse to normative medical knowledge and the privileging of medical experts is evident in CAS giving precedence to the testimonies of medical doctors and clinicians over other expert evidence. As the cases unfolded, the legal and ethical dimensions of regulating entry into women's sport were reduced to a debate about scientific evidence, underpinned by the belief that unearthing the scientific 'truth' would determine what is right. However, significant disagreements emerged among medical experts regarding the sufficiency of available data to support positing a causal relationship between naturally elevated endogenous testosterone and improved athletic performance in women with DSDs. Additionally, experts also disagreed on their understanding of the functioning of endogenous testosterone and its effects on the body. As these disagreements not only threaten the justifications provided by the IAAF/WA in support of the regulations, but also threaten to expose the indeterminacy and incompleteness inherent to the pursuit of knowledge in the

human sciences (Golder & Fitzpatrick, 2009), the CAS panel is called on to resolve this uncertainty and determine the scientific ‘truths’. In the process, CAS accords truth value to those statements that fit within the framework of the dominant sex/gender discourse and confirms a binary understanding of sex.

Even before engaging with the substantive content of the scientific evidence presented by the IAAF/WA in defence of its Eligibility Regulations, the appeals pointed to several problems with the methods employed to collect this evidence. Chand and Semenya’s filings noted that the Eligibility Regulations were formulated by panels comprising mostly of white male medical experts, thereby exacerbating the racial divide in knowledge production and policy making which adversely impacts non-white athletes from the global south. The IOC Medical Commission’s (2003) “Stockholm Consensus on sex reassignment in sport” which forms the basis for the 2006 Hyperandrogenism Regulations was drafted by a committee consisting mostly of male medical doctors drawn from three countries: Sweden, USA, and France. Out of the seven medical experts listed in the 2018 DSD policy document, only two are from Asia – Professor Tsutomu Ogata of Japan and Professor Zi-Jiang Chen from China – while all the other experts are either from the USA or Europe. Of the seven World-Athletics-approved specialist reference centres listed in the same document, only one is located in Japan and one in Brazil, while the rest are in Europe and America. Notably, none are from Africa or South Asia. The composition of the expert panels and the location of the specialist centres not only betrays the US/Eurocentrism of the IOC and IAAF/WA’s medical commissions, but also creates economic and practical hurdles for athletes from the Global South trying to get medical testing and care as suggested in the Eligibility Regulations.

Witness statements pointed out that the policies that impose restrictions on intersex\* female athletes had been drafted with little participation or input from DSD individuals or activists. Dr Eric Vilain noted in his witness statement that “[n]o current elite or Olympic-level athletes with DSD attended the meetings. In contrast, three white European cisgender athletes without DSD were invited to attend at least one meeting. Only a small number of trans\* or intersex\* advocates were invited to attend certain meetings” (*Semenya & ASA v. IAAF*, 2018, p. 35). Further, he noted that the reports from the expert committee meetings obscures the uncertainties and disagreements among medical experts to present a picture of consensus among experts. Additionally, statements made by Dr Bermon – a key member of the World Athletics’ Health and Science Department – about the ideal feminine body were also presented as evidence of the Eurocentric bias inherent in these ideals.

Appearing as a witness of Semenya, international athletics coach Pierre-Jean Vazel recounted that Dr Bermon stated that “genetic mutations are often related to inbreeding in developing countries” (*Semenya & ASA v. IAAF*, 2018, p. 22). Dr Bermon is also said to have stated that “these people” should not compete with women in athletics events and that “Ms. Semenya ‘would run male times if her coach was better, if she was training harder and if she ran at full speed’ and that Ms. Semenya’s coach was ‘appalling’” (*Semenya & ASA v. IAAF*, 2018, p. 23). Given these concerns about the composition of the panel and the prejudicial views expressed by some of the researchers involved in the studies, the athletes’ lawyers asked CAS to consider that personal biases could have coloured the conclusions arrived at in their studies.



#### **7.4.1. Using Scientific Evidence: Conflict of interest**

The IAAF/WA's use of evidence in support of the Eligibility Regulations has been critiqued for its non-compliance with the accepted standards for using science to guide policy matters (Pielke Jr., Tucker & Boye, 2019). To defend the 2018 DSD Regulations, the IAAF/WA draws on a range of evidence: population data regarding normal testosterone levels among elite athletes, published scientific studies exploring the link between testosterone and athletic performance, and inferences drawn from the observation of elite athletes. The overrepresentation of hyperandrogenic women among elite athletes is presented as indirect proof of the performance-enhancing effects of testosterone (*Semenya & ASA v. IAAF*, 2018, p. 81; *Chand v. AFI & IAAF*, 2014, p. 54). Apart from this, two other papers are used by the IAAF/WA as evidence: Handelsman, Hirschberg and Bermon's 2018 paper investigating circulating testosterone as the basis for sex differences in athletic performance and Bermon and Garnier's 2017 study (BG 17) on the impact of circulating testosterone on athletic performances in track and field events. However, both these studies were conducted by researchers affiliated to the IAAF/WA (*Semenya & ASA v. IAAF*, 2018, p. 5). Dr Angelica Linden Hirschberg serves as a medical advisor to the IAAF/WA and IOC, while Dr Stephane Bermon is the Director of the Health and Science Department at IAAF/WA, Dr Pierre-Yves Garnier works for its Athletics Integrity Unit.

An early, pre-publication version of the Handelsman paper even acknowledged that the "authors of the report had received "helpful insights and comments from Jonathan Taylor QC and Elizabeth Riley (Bird & Bird)" (*Semenya & ASA v. IAAF*, 2018, p. 30). This admission that the paper was drafted with support from lawyers specialising in helping sports' governing bodies with drafting policies indicates that not only scientific evidence, but also potential legal implications were considered carefully in drafting this paper. Rather than

using robust scientific evidence to guide policies, Semenya's lawyers argued that this resembled "cigarette companies providing the scientific basis for the regulation of smoking or oil companies providing the scientific basis for regulation of fossil fuels" (*Semenya & ASA v. IAAF*, 2018, p. 30). With respect to BG 17, subsequent analyses of the paper revealed several problems with the study design and statistical methods employed; and the study was only suited to identify correlation and not establish causal relationship. As an expert witness for Caster Semenya, Professor Holt reviewed all four studies published since Chand's case in the CAS, filed in 2014. Two of these studies conducted by researchers affiliated to the IAAF/WA – BG17 and the Handelsman paper found a correlation between endogenous testosterone and athletic performance. The other two papers which were authored by independent researchers with no links to the IAAF did not draw the same conclusions. Pointing to these issues, Semenya's experts argued that the IAAF's policy making procedure did not meet the criteria that "the scientific advice is and is seen to be free from conflict of interest".

In their appeal against the DSD regulations, ASA also challenged the legal admissibility of BG 17 data as blood samples originally collected from participating athletes for anti-doping tests were repurposed to measure free testosterone levels without obtaining explicit consent from the athletes involved. Problematising the IAAF/WA's presumption that in consenting to provide their samples for doping tests, the athletes had in principle also consented to further medical testing of their samples, ASA submitted to CAS that this evidence should be deemed inadmissible in court as it "was in violation of the laws of Monaco, Republic of Korea and the Russian Federation" (*Semenya & ASA v. IAAF*, 2018, p. 53). Further, Semenya's witnesses also noted that the athletes involved might not have allowed the IAAF/WA to use their samples to gather data in defence of a regulation that specifically targets one of their fellow athletes.

However, in considering this argument, CAS observed that while ASA relied on Monegasque Regulations pertaining to biomedical research to claim that athletes' privacy had been breached, it was unable to show that "under Monegasque law, this legal term [biomedical research] includes analysis of pre-existing data arising from collection with the consent of the athletes concerned" (*Semenya & ASA v. IAAF*, 2018, p. 134). On the basis of this technicality, the data used by the BG 17 study was held to be exempt from relevant clauses on data protection and privacy included in the Monegasque constitution (*Semenya & ASA v. IAAF*, 2018).

#### ***7.4.2. Using Scientific Evidence: A Question of Validity***

Apart from concerns expressed about the legality of the data collection methods and potential conflict of interest, these two papers – BG 17 and Handelsman et. al. (2018) – were also critiqued for their design and methodology. The 'normal' testosterone level for male and female athletes is based on the Daegu (2011) and Moscow (2013) data. Even though the IAAF/WA's expert witnesses presented the data as reliable, concerns persist about the methods adopted in these studies. A wide range of factors that are known to influence testosterone levels, ranging from circadian rhythm and menstruation to levels of physical and sexual activity, were not controlled for (*Semenya & ASA v. IAAF*, 2018, p. 59). Further, the method used to measure testosterone deviated from the IAAF/WA's own standard procedures for measuring testosterone levels in athletes: the time-consuming "equilibrium dialysis" method was substituted for methods that enabled the calculation of approximate fT levels. This deviation from recognised best practice in the field led to concerns that the data regarding the testosterone levels of individual athletes obtained in these two studies might be inaccurate and unrepresentative of the athletes' true testosterone levels. This would render

suspect any conclusions drawn from this data regarding the ‘normal’ testosterone ranges in athletes and the effect of testosterone on athletic performance (*Semenya & ASA v. IAAF*, 2018, p. 59).

The Handelsman paper is presented as a systematic review of studies conducted on the relationship between testosterone and athletic performance, but it is more accurately characterised as a “narrative review” which selectively uses available data to express the author’s views (*Semenya & ASA v. IAAF*, 2018, pp. 37–38). The diversity in the methodologies used in the studies considered for review and the differences in their sample populations make these studies incomparable and hence unsuitable for the kind of meta-analysis conducted by the authors of the Handelsman paper. In the case of BG 17, serious flaws in the study design, methodology and statistical calculations render the conclusions suspect. While all the raw data used by the BG 17 has not been made available to other researchers, examination of the portion of the data released by the IAAF/WA revealed that in BG 17 some data points had been duplicated and there were errors in the statistical calculation. Professor Roger Pielke, a former director of the Sports Governance Centre at the University of Colorado Boulder, noted in his witness statement that his team was unable to replicate the results obtained in BG 17 using the methodology stated in the paper and the available raw data; this raises serious concerns about the validity of its conclusions<sup>9</sup>. Dr Dankmar Bohning, Professor of Medical Statistics at the University of Southampton, testified during the proceedings that the regression analysis he conducted on the data underlying

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<sup>9</sup> More detailed criticisms of this paper have been published since the court proceedings.

Acknowledging the shortcomings of the paper, BMSJ which originally published the paper printed corrections in 2018, and in the same year the authors themselves made amendments to the paper.

BG17 which was released by IAAF/WA showed “significant degree of testosterone-related athletic performance advantage to demonstrate the necessity of the DSD Regulations” (*Semenya & ASA v. IAAF*, 2018, pp. 10–11). In addition to these methodological issues, there are also contradictions between the conclusions arrived at in BG17 and Handelsman paper regarding the effects of testosterone: while the “Handelsman paper suggests a sigmoid curve for testosterone ... BG 17 found no correlation between testosterone and athletic performance in male athletes” (*Semenya & ASA v. IAAF*, 2018, p. 26). The relationship between fT levels and athletic performance is not as linear and simple as posited by the conclusions drawn in BG17: women with fT in the lowest tertile had better results than their counterparts with fT in the highest tertile in 9 of the 21 events. A significant performance difference in relation to endogenous testosterone was observed in only three running events, but these differences are underplayed by the BG 17 study which posits a positive relationship between the hormone and athletic performance (*Semenya & ASA v. IAAF*, 2018).

Professor Roger Pielke outlined key criteria for the appropriate use of scientific data for making policy decisions: “the judgments be scientific and not of policy; that the scientific advice is and is seen to be free from conflict of interest; that the studies relied upon are transparent; and that the research used be peer-reviewed” (*Semenya & ASA v. IAAF*, 2018, p. 144). He also noted that there were “systemic, pervasive and consequential errors in the underlying science put forward as the basis for the DSD Regulations”, leading him to conclude that the IAAF/WA had not followed these criteria in developing DSD regulations (*Semenya & ASA v. IAAF*, 2018, p. 30). In its judgement, the CAS panel called the criteria outlined by Professor Pielke “laudable objectives” for policy making; but, the panel also noted that it was not required to “evaluate the adequacy of the IAAF’s general policy making process or to re-write its rules” (*Semenya & ASA v. IAAF*, 2018, pp. 144–145). Following the

precedent set in Russian Olympic Committee (ROC), *Lyukman Adams et al. v. IAAF*, the panel added that it could not infringe on the rule-making power of the IAAF/WA or question the discretion it exercises in balancing competing interests while developing policies. This judgement puts the IAAF/WA's policy-making process outside the ambit of the court's legal consideration; the CAS strategically withdraws from the domain allowing the IAAF/WA to govern, practically without any legal interference. This illustrates Golder & Fitzpatrick's (2019) argument about the importance of mechanisms of law to the exercise of disciplinary and governmental mechanisms of power. By exercising its oversight, law legitimates the domain in which disciplinary and governmental mechanisms operate; but this legal oversight is also strategically withdrawn to allow disciplinary and governmental mechanisms to organise the field of subjects, in accordance with the norms produced by the human sciences. In relation to sports governance, I argue that CAS functions in this role of legitimating the governing activities of sports governing bodies and International Federations, as illustrated by its judgements in these cases pertaining to the legality of the Eligibility Regulations.

### **7.5. Testosterone as the Determiner of Athletic Success**

In analysing the arguments presented in Dutee Chand's case, the CAS explicitly articulated the underlying logic of the 2011 Hyperandrogenism Regulations policy thus:

an endogenous testosterone level within the male range + virilisation (indicating sensitivity to the high level of testosterone) = a degree of competitive advantage over non-hyperandrogenic females of commensurate significance to the competitive advantage that male athletes enjoy over female athletes (*Chand v. AFI & IAAF*, 2014, p. 154).

In the case of the DSD regulation, there is only a slight modification to this logic in that even if DSD athletes enjoy a mere 2–3% performance advantage over their fellow female competitors on account of their higher testosterone levels, it would be considered sufficient to justify the regulations since most elite athletics contests are decided by such slender margins. These excerpts highlight the reduction of legal, ethical and moral considerations pertaining to the participation of intersex\* female athletes to medical issues, resolvable through recourse to appropriate scientific evidence. Ethical considerations are understood to be only subsidiary: if the link between endogenous testosterone and enhanced athletic performance can be proved, then the discrimination implicit in the regulations would be legal or legitimate. Given the primacy accorded to scientific evidence, much of the court proceedings focused on expert testimonies regarding the acceptability, validity and sufficiency of the studies used by the IAAF/WA to justify Hyperandrogenism Regulations.

In these cases, it is acknowledged by the athletes, the IAAF/WA and the CAS that while athletic contests are divided into male and female categories, “biological sex is not binary” (*Semenya & ASA v. IAAF*, p. 124) and “nature is not neat” (*Chand v. AFI & IAAF*, p. 11).

While single factor tests to determine sex are considered inadequate and inappropriate, it is still deemed necessary to find a set of determining criteria to sort athletes into relevant competition categories. The discussions then become focused on a “trait that is known to influence one's athletic performance and which happens to be sexually dimorphic:

Androgens” (*Chand v. AFI & IAAF*, 2014, p. 37). While it is acknowledged that other physiological characteristics, such as Lean Body Mass (LBM) and genetic variations and polymorphisms, and factors such as access to “funding, nutrition, training methods and coaching” can impact performance, testosterone is still considered the key determiner of athletic success (*Chand v. AFI & IAAF*, 2014, p. 89). Consequently, much of the expert

testimony presented in the two cases are interpretations of the currently available research data on the efficacy of *the male hormone* testosterone in enhancing athletic performance. When this *male* hormone is found in inappropriate levels in female body it is deemed to be a problem. While there are divergences in expert opinions, the discussions are still structured by underlying assumptions about the role of sex hormones in determining the development and expression of sex/gender differences.

### **7.5.1. Testosterone: Setting the Norms**

Early in his testimony for Chand, endocrinologist Professor Richard Holt observed that “testosterone levels are not generally measured in normal healthy individuals” (*Chand v. AFI & IAAF*, 2014, p. 45). Yet, such measurements are taken in the case of athletes when enforcing anti-doping regulations as testosterone is a banned performance-enhancing substance. Much of the data regarding the normal testosterone range for male and female athletes comes from the analysis of samples collected for doping tests<sup>10</sup> following competitions. When the court hearing for *Dutee Chand v. AFI and IAAF* was underway, “population studies from international athletics competitions at Moscow in 2013 (the “Moscow data”) and Daegu in 2011 (the “Daegu data”)” were the only available studies about testosterone levels in elite female athletes. Using this data, the IAAF/WA posited that among elite female athletes and general female population alike, the normal testosterone levels ranged between 0.1 and 3.08 nmol/l (*Chand v. AFI & IAAF*, 2014, p. 38). However, it was also observed that women with Polycystic Ovary Syndrome (PCOS) had an average testosterone level of 4.5 nmol/litre (*Chand v. AFI & IAAF*, 2014, p. 58). To ensure that these athletes

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<sup>10</sup> The ethics of using blood samples provided by athletes for purposes other than those they were explicitly intended for is discussed later in the chapter.



would not be covered under the Regulations targeted specifically at women with XY chromosomes, the upper limit for testosterone for athletes in the female category was set at 10nmol/litre, 5 standard deviations from the average level in women with PCOS (*Chand v. AFI & IAAF*, 2014, pp. 44–45). This level was subsequently halved in the 2018 iteration of the regulation, with the justification that above 5 nmol/litre the hormone produced discernible performance-enhancing effects that gave DSD female athletes an insurmountable – and therefore unfair – athletic advantages over their fellow female competitors (IAAF, 2018). This reduction, however, was criticised as “arbitrary” and as having “nothing to do with unfair performance advantage” but with specifically targeting 46XY women (*Semenya & ASA v. IAAF*, 2018, pp. 35–36). As great care is taken to ensure that women with PCOS and consequently higher levels of endogenous testosterone are not targeted by these regulations, the regulations imply that 46XY women are not really women, with the IAAF/WA even referring to them as ‘biological males’.

In using a single measurement of serum testosterone levels collected after a competition to arrive at a “male” and “female” range, the IAAF/WA envisions testosterone levels in an individual as relatively stable over time. However, the IAAF/WA’s own observation that there is a post-competition slump in testosterone levels in male athletes contradicts this conception of testosterone levels as unvarying. These statistical measurements also do not account for the complex endocrinological loop through which the hormone functions. In developing statistical norms for testosterone levels in women, the IAAF/WA posits a clear distinction between ‘male’ levels and ‘female’ levels of the hormone, even though “there are no scientific norms for testosterone levels in healthy individuals across cultures” (*Chand v. AFI & IAAF*, 2014, pp. 35–36).

Looking at the data used by the IAAF/WA to set the norms, expert witnesses for Dutee Chand argued that delineating a distinct ‘male’ and ‘female’ range was scientifically untenable by pointing to instances of overlap. One hundred and ninety-eight male athletes from the Daegu sample and 131 from the Moscow sample had testosterone level below 10 nmol/litre. Additionally, six male athletes from these samples had testosterone below 3.08 nmol/litre – i.e., in the supposedly ‘female range’ (*Chand v. AFI & IAAF*, p. 44). However, the IAAF/WA tries to explain away such overlap by suggesting that the athletes whose testosterone levels were at variance with the identified norms either had a medical condition, were doping, or had their samples taken at an inopportune time.

Women who had testosterone levels higher than 3.08 nmol/l were either suspected of having DSD or of doping (*Semenya & ASA v. IAAF*, 2018, pp. 87–88; *Chand v. AFI & IAAF*, 2014, p. 57). Men whose testosterone was below the ‘male range’ identified by the IAAF/WA were “believed to be hypogonadic, either as a result of anabolic steroid use, overtraining or an underlying medical condition” (*Chand v. AFI & IAAF*, 2014, p. 212, emphasis added). While admitting that “there can be very low testosterone in men who have over-trained or if testosterone is measured directly after competition”, the IAAF/WA argues that it cannot be taken as indicative of “an overlap [in testosterone level] in “normal situations” of healthy men and women” (*Chand v. AFI & IAAF*, 2014, p. 129). Thus, the IAAF/WA implicitly presents strenuous training and post-competition settings as “abnormal” situations, even though these settings are the norm for professional athletes covered by the 2011 hyperandrogenism policy.

In developing statistical norms for ‘male’ and ‘female’ testosterone range, the IAAF/WA manoeuvres to exclude athletes whose testosterone levels do conform to its standards. These athletes are already regarded as suspicious or medically abnormal to construct a clear separation between male and female range in testosterone by providing reasons to discount

any overlap. In contesting these norms, a demand is made for more comprehensive and better empirical data. Such a demand exposes athletic bodies to more scrutiny and surveillance that they might not have willingly consented to. The information obtained from such scrutiny is then used to police athletes; the burden of such scrutiny and consequent policing falls disproportionately heavily on female athletes and non-binary athletes.

### ***7.5.2. Testosterone: Incomplete Story***

In *Chand v. AFI and IAAF* (2014), the athlete's experts pointed to the lack of published studies examining the impact of endogenous testosterone on athletic performance in women. Given this limitation, they drew on the study by Healy et al., (2014) which studied the impact of 24 different factors, including genetic factors such as height and weight on athletic performance and concluded that Lean Body Mass (LBM), rather than testosterone, could account for the observed performance differences between men and women (*Chand v. AFI & IAAF*, 2014, p. 40). Bringing the focus back to testosterone, the IAAF's medical experts, noted that the hormone was "a major determinant of LBM" and faulted the study for not examining the link between LBM and endogenous testosterone levels (*Chand v. AFI & IAAF*, 2014, p. 53).

IAAF/WA's arguments in favour of retaining the 2011 hyperandrogenism policy rely on studies that establish a strong correlation between testosterone and athletic performance and the belief that is supposedly "widely held in the scientific community" that female athletes with testosterone above 10nmol/litre would have "significant advantages" (*Chand v. AFI & IAAF*, 2014, p. 54). In the absence of much direct evidence and the ineluctable difficulties of establishing a causal link between endogenous testosterone and athletic performance, IAAF/WA's experts made inferences about the effects of endogenous testosterone based on

studies about the impact of the administration of exogenous testosterone on athletes. These inferences rest on the contested claims that there is “no biochemical difference between endogenous and exogenous [testosterone]” and that they are metabolised by the body in the same way and consequently have similar performance enhancing effects (*Chand v. AFI & IAAF*, 2014, p. 54).

CAS noted in its ruling in *Chand v. AFI and IAAF* that on the basis of published evidence presented by both the parties, the data was still inconclusive: while the “experts agreed that exogenous testosterone and endogenous testosterone can be metabolised differently in different individuals ... there is also some published evidence that once in the bloodstream, it has the same mechanism of action” (2014, p. 133). The panel also noted that the evidence presented by the IAAF/WA was insufficient to prove that the separation between female athletes with hyperandrogenism and normal female athletes could not be justified on the basis of current evidence since the degree of competitive advantage conferred by a testosterone level above 10 nmol/L is not commensurate with the degree of competitive advantage that men enjoy relative to women (*Chand v. AFI & IAAF*, 2014, p. 155). Based on these considerations, CAS passed an interim judgement suspending the Regulations for two years to give the IAAF/WA time to produce incontrovertible scientific evidence to support its policy; failing this, the regulations would remain suspended. Even as arguments about unfair discrimination and the distinctions made between different kinds of natural advantages are considered, the judgement is finally based on scientific evidence or lack thereof. In asking for further evidence linking testosterone to athletic performance – more specifically, the impact of endogenous testosterone on the athletic performance of hyperandrogenic women – the judgement also sets the course for and warrants further research in this area.

In response to the judgement in the Dutee Chand case, the IAAF/WA enacted the new Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development) which were meant to take effect from 1 November 2018. Relying on evidence from Stéphane Bermon and Pierre-Yves Garnier's study (BG 17), the new regulations reduced the threshold for endogenous testosterone to 5 nmol/litre; the scope of the regulations were narrowed to apply to only five women's events: 400 m, 400 m hurdles, 800 m, 1500 m, and 1 mile. However, when Caster Semenya and Athletics South Africa (ASA) challenged the DSD Regulations in CAS, critical concerns were raised about the conditions under which the data for this study was obtained and the reliability of the study design.

### ***7.5.3. Competing Constructions of Testosterone***

The Eligibility Regulations are premised on the belief that men and women have distinctly different ranges of endogenous testosterone levels; it follows, then, that women with testosterone levels higher than the 'normal' range are in need of medical normalisation. Belief in the impact of testosterone on athletic performance is strong; and this belief is extended to the performance-enhancing effects of naturally high endogenous testosterone in women with 46XY DSD. These beliefs function within the limits of the currently dominant sex/gender discourse which accords primacy to the role of sex hormones in determining sexual development, and by extension to athletic performance. The popular and scientific understanding of certain hormones as sex hormones persists, even as they have been shown to be present in all bodies to varying degrees, and their functions have been shown to extend beyond sexual development, narrowly conceived (Oudshoorn, 1994; Fausto-Sterling, 2000a; Roberts, 2007). These hormones are still identified as androgens – those responsible for male characteristics and oestrogens – those responsible for female characteristics. Testosterone,

thus, becomes the focus of attention as a factor impacting athletic performance, to the exclusion of other factors, precisely because of its cultural significance as a male hormone. The IAAF/WA's contention that testosterone level is "the best discriminating factor between male and female performance in sports" as it is clearly sexually dimorphic reflects and strengthens this understanding of testosterone (*Chand v. AFI & IAAF*, 2014, p. 9). In examining the studies presented by the IAAF/WA, researchers noted that testosterone was singled out for focus from among 34 other biological factors that could also potentially influence sporting outcomes. This narrow fixation on testosterone not only precludes from consideration a wide variety of other biological factors – such as lean body mass, bone density and genetics – but also contributes to a reductive understanding of sporting success as biologically determined.

Studies that seek to establish a link between testosterone and athletic excellence present it as a discrete biochemical object – an independent, potent causal agent whose positive influence on athletic abilities transcends specific contexts. Endogenous testosterone levels are presented as being relatively stable and constant over time, with predictable effects on musculature and strength. Increase in muscle mass and reduction in body fat brought about by elevated testosterone are said to translate into athletic advantages giving hyperandrogenic women an unfair edge over their fellow competitors, similar to the advantage obtained by the external administration of testosterone. Reducing testosterone to its biochemical composition, it is argued that endogenous and exogenous testosterone produce the same clinical effects since they are chemically indistinguishable. By equating the effects of administration of exogenous testosterone to the effects produced by high endogenous testosterone, the IAAF/WA's experts argue that 46XY DSD athletes benefit from high levels of this hormone, and consequently have insurmountable athletic advantages over their fellow female athletes.

In contrast to the IAAF/WA, Chand's and Semenya's experts construct testosterone as a hormone that functions through the complex endocrinal feedback loop from which it cannot be easily detached – it is “just one element in a complex neuroendocrine feedback system” (*Chand v. AFI & IAAF*, 2014, p. 50). As such, it is responsive to a range of “environmental, physiological and social factors” and its levels in the blood stream are “naturally dynamic” (*Chand v. AFI & IAAF*, 2014, p. 36). These complexities and nuances in the functioning of testosterone are elided in the IAAF/WA's argument that endogenous and exogenous testosterone are not only chemically identical but also functionally indistinguishable. Professor Holt and Dr van Anders argued on behalf of Semenya that since exogenous testosterone disturbs the body's homeostasis and triggers different responses, and “result in wider effects on the endocrine system than are caused by natural fluctuations in endogenous testosterone” (Dr Holt cited in *Semenya & ASA v. IAAF*, 2018, p. 26). Further, “[E]ndogenous testosterone increases the binding sensitivity of androgen receptors, whereas exogenous testosterone decreases it” (Dr van Anders cited in *Chand v. AFI & IAAF*, 2014, p. 137). Given these functional differences, it is argued that results from research done on the effects of administering exogenous testosterone to male athletes cannot be extrapolated to mean that high endogenous testosterone produces the same effects in 46 XY DSD women. Far from being just a biochemical object that functions as a potent, unidirectional causal agent, testosterone is constructed as a participant in a complex biocultural network which impacts and is impacted by other elements.

Studies that examine the relationship between testosterone and athletic performances can only establish strong correlations, but not causation, as confounding factors cannot be controlled or even exhaustively accounted for. It is also argued that an uncomplicated causal

link between testosterone level and athletic performance cannot be posited given the wide variation in testosterone levels among elite male and female athletes which indicated that high testosterone does not always correlate positively with better performances in all events. The athletes with the highest levels of testosterone in the blood stream are not always the ones with the best performances. Given these complications, Chand contends that testosterone is not sufficient by itself to explain performance differences. Even among XY female athletes with high levels of the hormone, some have partial or complete insensitivity to testosterone which grants them no competitive advantage.

Some of the complexities in the functioning of endogenous testosterone is recognised by the IAAF/WA in the acknowledgement that there are significant differences in individuals' responses to the hormone. However, such an acknowledgement does not lead to a re-examination of the fundamental precepts underpinning research into the link between testosterone and athletic performance; instead, it is used by the IAAF/WA to institute checks for the body's responsiveness to testosterone. The extent of the body's virilisation is used as a proxy to measure responsiveness to testosterone in the absence of reliable methods for measuring Dihydrotestosterone – a more potent metabolite of testosterone. Virilisation checks become particularly important, but also vexingly difficult, in cases of Partial Androgen Insensitivity Syndrome (PAIS); assessments are based on “clinical impression” as there is “no simple test that can be used to diagnose PAIS in all individuals” and response to testosterone can vary widely between individuals (*Semenya & ASA v. IAAF*, 2018, p. 43).

While the IAAF/WA defends virilisation assessment as a scientific examination of phenotypical characteristics, it is effectively a check for masculine characteristics in women. The markers of virilisation used in these checks include “deeper voice, increased body hair, breast atrophy” and “alopecia, muscular hypertrophy and clitoromegaly” (*Chand v. AFI &*



*IAAF*, 2014, p. 57; p. 21). Virilisation checks also allow for invasive and demeaning tests – including genital examinations – which can cause feelings of shame and undermine the affected athletes’ dignity and self-esteem. This comprehensive visual scrutiny of athletes is founded on the belief that sex is articulated both at the invisible level (hormones and genes) and at the visible level (physiology); the truth of the underlying ‘sex’ is coded on the body, to be deciphered by medical experts – those fluent in the language of hormones. While the IAAF/WA defends virilisation assessment as a scientific examination of phenotypical characteristics, the framework for appropriate gender presentation, appearance and expression are derived from underlying Euro-centric cultural norms which especially disadvantage non-white athletes.

While testosterone is relatively decentred, these explanations draw attention to the functioning of other androgens in the body. Professor Richard Holt noted that there were studies that had shown correlation between Dehydroepiandrosterone (DHEA) and dihydrotestosterone (DHT) and athletic performance (*Semenya & ASA v. IAAF*, 2018, p. 95–96). Earlier in the proceedings, Dr Alun Williams had also observed that through its effects on muscle twitch fibres, DHT could improve athletic performance (p. 151). They draw further support for their arguments by noting that this correlation is also acknowledged by WADA as DHT is a banned performance-enhancing substance. The inconsistencies and contradictions in the construction of testosterone as a biochemical agent, detached from the endocrinological feedback loop, are raised in the competing construction of the functioning of testosterone in the expert testimonies and discussions during the court proceedings. However, androgens are still accorded a central role in the explanatory framework.

## 7.6. Reckoning with the Broader Impacts of Hyperandrogenism Regulations

Dutee Chand and Caster Semenya both recounted their unpleasant experiences of being subjected to medicalised surveillance in pursuance of the Hyperandrogenism/DSD regulations. Dutee Chand's testimony states that she underwent medical tests while under the impression that the Athletics Federation of India (AFI) was developing her "high performance profile"; she became aware of the real purpose of the tests only when she received a letter from the AFI which stated that she "was provisionally suspended from participating in any athletics events with immediate effect" (2014, p. 8). This "Decision Letter" wrongly enclosed the "IAAF Sex Reassignment Regulations rather than the Hyperandrogenism Regulations" (2014, p. 8). In the meantime, the Director-General of the SAI, Mr Jiji Thomson, had already issued a public statement that "a gender test was conducted on a woman athlete in Bangalore" and her name would be deleted from the list of Commonwealth Games participants (2014, p. 5). This led to conjectures in the media regarding the identity of the athlete.

The sequence of events that followed Caster Semenya's win at the IAAF/WA World Championships in Berlin in 2009 were similar: she was subjected to a battery of medical tests in Germany under orders from the IAAF/WA that she "had no choice but to comply with" (*Semenya & ASA v. IAAF*, 2018, p. 17). She learnt of the real purpose of these tests only much later, after the officials shared this information with the media, speculating that "it is clear that [Ms. Semenya] is a woman but maybe not 100 per cent" (2018, p. 17). Suspicions about her 'real' gender proliferated in the media, with even her coach defensively stating that "[w]e understand that people will ask questions because she looks like a man" (North, 2009).

The 2011 and 2018 iterations of the policy explicitly note that medical tests in pursuance of these policies should be conducted with the informed consent of athletes. However, as Chand's and Semenya's court filings indicate, these expectations are routinely flouted in practice. The requirement to conduct these tests confidentially, while ensuring privacy of the medical data is also not met in practice. In response to Dutee Chand's allegations that she was subjected to medical examinations without her informed consent, the CAS observed that since she was tested under the Indian Sports Ministry's "Standard Operative Procedure (SOP)" rather than under the Hyperandrogenism Regulations, the CAS was unsure of its status as an arbitrator on the matter (*Chand v. AFI & IAAF*, p. 121).

CAS noted that since the SOP was adopted in compliance with the Hyperandrogenism Regulations, legislating on the validity of the latter would suffice on this matter as well. While this provides some protection, it also puts national-level and federation-level regulations enacted to ensure compliance with the Hyperandrogenism Regulations outside the ambit of CAS. This makes it more difficult for athletes to seek legal recourse against the problems arising out of the enforcement of these regulations. With respect to athletes' privacy, while the 2011 and 2018 policy documents provide some guidelines for ensuring that the tests are conducted confidentially, there is no clarity regarding how these guidelines would be enforced. This results in a lack of accountability on the part of the IAAF/WA, which is evidenced in the CAS judgement which while acknowledging the breach of confidentiality did not/could not hold the IAAF/WA or its officials accountable for this.

The enforced medical normalisation of these athletes exposes them to experimental, potentially harmful, and medically unnecessary treatments which risks their health and their athletic careers. Even as the IAAF/WA advocates for Hormone Replacement Therapy (HRT),

Semenya and Chand contended that the conclusions about its impact on athletic performance rested on scant proof: the reported 5.7% performance drop as a result of undergoing HRT is based on evidence from only three athletes. As there is little information on the overall impact of using oral contraceptives to reduce testosterone, the treatment is effectively experimental and uses DSD athletes as ‘lab rats’. Additionally, Dr Kidd also expressed “significant concern that the IAAF had been counselling athletes with high testosterone levels to undergo corrective surgery or drugs treatment” (cited in *Chand v. AFI & IAAF*, p. 6).

Medical experts who testified in favour of Caster Semanya also noted that the interventions suggested for her could be unsafe and at variance with the current best practices in the field. Professor Marc Blockman, a clinical pharmacologist and expert witness for Semanya, noted that the use of oral contraceptives to reduce testosterone amounted to the off-label use of medication. Prescribing such medication “for healthy individuals requires a strong evidentiary basis in order to be ethically justified. Unless and until there are long-term data for the safety and efficacy of off-label use of medication to reduce testosterone levels of female athletes with hyperandrogenism, the practice is ‘ethically unjustified’” (Blockman cited in *Semenya & ASA v. IAAF*, 2018, pp. 57–58). Dr Veronica Gomez-Lobo, another expert witness for Caster Semanya, noted that using oral contraceptives to reduce testosterone can “significantly increase the risk of VTE, which increases the risk of deep venous clots, pulmonary embolism and stroke. They can also result in other medical side effects such as hypertension, liver dysfunction and tumours, as well as interfering with certain other medications” (cited in *Semenya & ASA v. IAAF*, 2018, p. 42). She also identified various adverse side effects that may arise from other testosterone-reducing treatments such as finasteride and dutasteride, spironolactone, GnRH agonist and gonadectomy (*Semenya & ASA v. IAAF*, 2018, p. 44).

As Caster Semenya's account of undergoing the suggested medical treatment illustrates, the slip in performance could be due to unintended side effects of the medication. While under treatment, Semenya described feeling nauseated and unwell; her doctors also testified that she was more susceptible to injuries during this period. Dr Greta Dreyer who provided medical advice to Semenya in 2009/10 noted that Semenya had complained of side effects of the medication including "sweating, weight gain and '*feeling horrible*'" – side effects that were consistent with "evidence of long-term flushing and weight gain, changes in fat distribution, bone loss and muscle loss in post-menopausal women and following gonadectomy in men" (*Semenya & ASA v. IAAF*, 2018, p. 21–22, emphasis in original). Semenya contested accusations of her not following the treatment regimen were inaccurate as the tests did not account for periodic fluctuations by indexing her testosterone levels to her activity levels. Explaining these fluctuations, she noted that "her testosterone levels had increased significantly during periods of rest and decreased during periods of intense training" (*Semenya & ASA v. IAAF*, 2018, p. 19).

Semenya argued that her performance in this period was impeded by mental anguish and the side-effects of the medication rather than the enforced reduction of testosterone. Based on this expert evidence, and Semenya's personal account, Athletics South Africa (ASA) submitted to CAS that all known treatments to reduce testosterone levels could not only adversely affect athletic performance but also have serious and potentially life threatening side effects and "at present there is neither scientific data nor consensus guidelines to instruct a clinician how to use any of these treatments safely to reduce testosterone to under 5 nmol/L and to keep it consistently below that level" (*Semenya & ASA v. IAAF*, 2018, pp. 54–55).

Given these unintended effects of the treatment, Semenya and ASA argued that the Regulations be withdrawn.

In response to these claims, the IAAF/WA's experts presented the dip in Semenya's performance as proof of the performance enhancing effects of the hormone. IAAF/WA's medical expert, Dr Stephane Bermon speculated, in other forums, that Semenya was deliberately modulating her performance to assuage concerns about her gender. Such speculation exemplifies the pattern of distrust that surrounds non-binary athletes, especially trans-gendered athletes: if they perform well against normal/cis women, it is attributed to their 'masculine traits', and when they lose, they are suspected of intentionally underperforming. Such a paradoxical web of suspicion sustains and strengthens the association of masculinity and testosterone with athleticism while also implicitly accusing intersex\* female athletes of being unscrupulous.

While acknowledging Semenya's unpleasant experience, CAS still registered it as anecdotal – and hence not generalisable – evidence. Even though the suggested hormone therapy could render athletes vulnerable to significant short- and long-term side effects, it was still deemed necessary to ensure fairness in women's sports. Further, these side effects were considered to be no different from those faced by 46 XX women who take contraceptive pills. This allusion to the expected side effects of hormonal birth control functions within the context of a medical discourse that diminishes the seriousness of women's health complaints and rests on gendered assumptions that minimise women's pain and suffering. It also betrays the unspoken expectation that DSD athletes should endure pain and discomfort – and potentially harmful medical procedures – as part of the normalisation process that enables them to compete in women's sporting events.

Eligibility Regulations problematise intersex\* female athletes with far-reaching consequences that go beyond adverse impact of the medical normalisation procedures on athletes' performances in competitions. Elaborating on her experience to substantiate this point, Dutee Chand noted that she was bullied and stigmatised by her fellow trainees to the extent that she had to change her training base to a badminton academy which was more welcoming. The court summary of her statement on behalf of Semenya noted that

[a]lthough the decision of the CAS enabled her to resume competing, Ms. Chand has faced constant public speculation about her gender, bullying at national training camps and hostility from other competitors. ... She felt like she was not a human being and did not know how she could live with such humiliation. She described how her former partner had ended their relationship as a result of media speculation about her gender. (*Semenya & AFI v. IAAF*, 2018, pp. 19–20).

The suggestion that DSD athletes who are unwilling to submit to medical normalisation can compete in events at the national level – if their country allows for it – is not practicable since coaches might be unwilling to work with athletes who have no chances of winning in international events.

These consequences highlighted by the athletes are not adequately captured in the CAS panel's evaluation of the necessity of the Eligibility Regulations. In the Hyperandrogenism Regulations and its legal assessments, consent is conceptualised as a voluntary agreement between two parties who are equals. The conceptualisation of consent as a “singular act of the subject” (Butler, 2011, p. 406) is based on the proprietary notion of selfhood derived from social contract theory. ‘Informed consent’ also presumes that it is possible for athletes to have adequate knowledge of and pre-empt the effects of subsequent exercise of power over their bodies. This conception cannot account for exercise of power as an ongoing process where

response to subsequent acts of power have to be renegotiated. These limits of the conceptualisation of power get highlighted in the discussions, but cannot be addressed adequately under the current conception of consent.

### **7.7. Arguing for ‘Dignity, Privacy and Equality’: Mobilising the Human Rights**

#### **Framework**

Caster Semenya’s appeal held that the DSD Regulations contravened not just the “IAAF Constitution, the Olympic Charter, the laws of Monaco” but also “universally recognised fundamental human rights” (2018, p. 2). The Amicus Curiae filed by the Office of High Commissioner for Human Rights and expert testimonies from Kyle Knight, a researcher with Human Rights Watch (“HRW”) and Marie Demetriou QC, a senior barrister practising at the Bar of England and Wales also concurred that the DSD Regulations were likely in contravention of the UN Declaration of Human Rights. The IAAF/WA responded to these claims by stating that it was “a private body, not a state body [and] therefore not legally subject to human rights instruments such as the UNDHR or the ECHR. The IAAF has, however, committed itself to the principle of equal treatment and non-discrimination” (*Semenya & ASA v. IAAF*, 2018, p. 74). This claim regarding the non-applicability of human rights regulations to the IAAF/WA was seconded by Lambelet Coleman, Professor of Law at Duke Law School, who stated that “[a]s the law currently stands, the IAAF is not formally subject to international human rights law” (2018, p. 103).

In its final judgement, the CAS panel observed that the information provided by the Amicus Curiae and by the legal experts focused on considerations of discrimination, but this was not found to be adequately helpful for resolving the “conflicting rights concerning the rights of



female athletes who do, and do not, have DSD” (*Semenya & ASA v. IAAF*, 2018 p. 145). Thus, by accepting the IAAF/WA’s argument that the rights of intersex\* women and the rights of ‘normal’ women were fundamentally opposed such that there could be no reconciliation between the two, the CAS panel justifies the discrimination inherent in the regulations as necessary to protect the rights of normal women in the context of sports. The question of whether human rights regulations apply to the IAAF WA’s remains unresolved, with the CAS noting non-committally that “there are important rights to equality and freedom from discrimination, including in sport, and that those rights find reflection in an array of domestic and international human rights instruments” (*Semenya & ASA v. IAAF*, 2018 p. 145). This points to the practical difficulties in effectively enforcing human rights regulations. The familiar paradoxical situation confronting those claiming human rights from the State – where the State is both the guarantor of the rights and the one against whose actions these rights are claimed – is played out here with the athletes claiming rights from the IAAF/WA (Golder, 2015; Cartland, 1992).

Apart from problems of enforcement, deeper issues with the conception of human rights as a limit to the exercise of power are highlighted in this case. While human rights are conceived of as natural, inalienable rights, inhering in the individual (United Nations, 1948), these rights are the product of political activity and are conferred on individuals as recognised members of a political community (Cartland, 1992). So, claiming these rights require one to be recognisably human – to take up position as a rights-bearing subject by conforming to the norms of subjectification (Golder, 2015). As Butler (2009) notes, “to be a subject at all requires first complying with certain norms that govern recognition – that make a person recognizable” (p. iv). However, in the case of intersex\* female athletes, it is this very recognisability that is under question. On the basis of the norms for being recognisably

female within the domain of athletics, these athletes are rendered abnormal and therefore unrecognisable as subjects endowed with rights, in contrast to the rights-bearing ‘normal’ women. This lack of recognition leads to the practical difficulties – well documented in extant legal scholarship – in using gender non-discrimination laws to protect the interests of intersex women, who are not always seen as rightfully belonging to the category of women who are to be protected from gender discrimination (Zaccone, 2020; Larson, 2011).

As sporting institutions currently recognise only male and female categories, those deemed by the IAAF’s policies as ‘women with hyperandrogenism’ or ‘women with DSDs’ cannot be recognised as legitimate subjects on their own terms. In their appeals, Semenya and Chand attempt to navigate this challenge by arguing that they rightfully belong to the female category. To this end, experts for Caster Semenya and Dutee Chand attempt to bridge the gap instituted between DSD women and normal women by the IAAF/WA’s regulations. Reifying constancy and continuity as a key aspect of sex/gender, it is noted that “in cases where an individual has continuously lived and identified as a woman from birth, it is “unnecessary” for a sports regulator such as the IAAF/WA to second guess this, “since society has done most of the work” already (*Semenya & AFI v. IAAF*, 2018, p. 32). They argue that it is unnecessary to have additional medical examinations and eligibility requirements for athletes who have lived as women all their lives as the athlete’s ‘legal sex’ would suffice. In resisting the labelling of DSD women as ‘biologically male’ and arguing for their inclusion within the category of women, they do not challenge the underlying binary conception of sex/gender or the grids of intelligibility for recognising subjects premised on a binary conception of sex/gender. They seek to merely institute a new dividing line between the existing male and female categories, which has the consequence of problematising trans\* women. Rather than DSD women, it is trans-women who have undergone a male puberty and enjoyed the

strength-enhancing effects of high testosterone levels who are posed as threats to women's sport.

This highlights the limitations of claims to human rights that are generally premised on a juridical model of power, where individual rights and freedoms are seen as setting limits to the exercise of power and checking its abuses (Foucault, 1980; 2003). However, this model does not adequately account for disciplinary power which is heterogeneous, decentralised, and functions primarily through the production of knowledges and subjectivities rather than through prohibitory laws and repression (Foucault, 1980; 1975/1995). To resist the exercise of disciplinary power, more fundamental than the claim to rights is questioning how "forms of meaning and discourse render certain agents illegible as the kind of bodies that demand protection?" (Feola, 2014, p. 132; cf. Butler, 2004). It is important to analyse and challenge the discursive formation which produces legitimate female athletes at the same time that it produces 'female athletes with hyperandrogenism' and 'women with DSDs' who are "illegible as the kind of bodies that demand protection" (Feola, 2014, p. 132).

## **7.8. Conclusion**

Legal appeals against Eligibility Regulations sought to defend the rights of intersex\* female athletes to participate in the women's category in sport – a category that is in accordance with their legal sex and gender identification. These appeals are articulated within the inherently constrained framework provided by the prevailing judicial mechanisms where an independent definition of key terms – 'fairness' and 'discrimination' – cannot be developed.

Consequently, the substantive understanding of fairness as competition under conditions of equality within a category is not subjected to scrutiny, and the narrow focus on the field of competition serves to justify the regulation of (supposed) competitive advantages accruing

from high endogenous testosterone levels in some women. Further, while CAS accepted the argument that the Eligibility Regulations are prima facie discriminatory, such discrimination is deemed necessary and proportionate to the aim of ensuring fair competition in women's athletics events.

CAS privileged medical experts and the scientific evidence presented by these experts in determining the legality of the Eligibility Regulations, and consequently much of the testimony was focused on testosterone and its effects on the body. While the experts for IAAF/WA presented testosterone as a potent male hormone, which when found in female bodies in excess quantities renders those bodies suspect. In addition to positing distinct male and female norms for testosterone, they also focused on its properties as a biochemical agent to argue for the similarities between the effects of endogenous and exogenous testosterone on the body. In contrast, experts for the athletes pointed to the overlap in testosterone levels between men and women and also pointed to the fluctuation in hormone levels in response to a myriad of physiological factors. In this reckoning, testosterone is not a unilateral causal agent but a participant in a complex endocrinological loop. Evaluating these competing constructions of testosterone, CAS accepted the construction of testosterone as a key determiner of masculinity and of athletic performance and ruled in favour of retaining the policies that set an upper limit for testosterone for competitors in the female category. Relatedly, when questions were raised about the use of evidence from a research funded by IAAF/WA to support its own regulations and concerns expressed about the appropriateness of the methods used by the IAAF/WA to collect athlete data, the CAS merely noted that it could not question the discretionary decisions made by IAAF/WA in its capacity as a governing body which could adopt and enforce regulations to govern the athletes under its purview.

The ultimate failure of the legal appeals filed against eligibility criteria to have the Eligibility Regulations removed demonstrates that juridical mechanisms and disciplinary mechanisms of power reinforce each other. Such disciplinary power exercised over athletes cannot be adequately countered by staking a claim to human rights. This failure is not just a result of the peculiarities of sports legislation and minor gaps in the enforcement of International Human Rights that can be fixed through further litigation, but an indication of the limitations imposed on non-normative female athletes by the “terms of recognition ... [which] condition in advance who will count as a subject, and who will not” (Butler, 2009, p. iv). Given that these athletes are seen as abnormal, the exercise of normalising medical power over their bodies, with potentially harmful consequences comes to be accepted and seen as necessary to ensure the interest of normal female athletes.

## Chapter 8. Conclusion

“Think about us as real people” – Lindsay Hecox (in Block, 2021)

“Who can I become in such a world where the meanings and limits of the subject are set out in advance for me? By what norms am I constrained as I begin to ask what I may become? And what happens when I begin to become that for which there is no place within the given regime of truth?”

(Butler, 2004, p.58)

Sport remains one of the few domains in which compulsory sex-segregation endures, underpinned by the notion of sex as merely biological, even as decades of feminist scholarship has challenged this notion (Connell, 1987; Butler, 1990; Fausto-Sterling, 2000a; Barad, 2003). As embodied performance, sport continues to appear “to operate as a ‘social laboratory’ ... providing powerful “patriarchal evidence of differences” between the sexes (Ritchie, 2003, p. 81–82). Entry into this ‘laboratory’ of athletes whose bodies resist easy categorisation as either ‘male’ or ‘female’ questions the very ontology of sexual dimorphism and attendant beliefs about the sporting and social consequences of sexual differences. Sports governing bodies have responded to this challenge by casting these athletes as ‘abnormal’ and intensifying the boundary policing between categories; the proliferation of policies to regulate the participation of trans\*, intersex\* and non-binary athletes attest to this. These policing efforts have been focused almost exclusively on regulating entry into women’s category underpinned by axiomatic beliefs in female athletic inferiority and the consequent need to protect ‘normal’ female athletes from those who are understood to have male-typical advantages (IAAF, 2006; 2011; 2018; “Transgender Guidelines”, n.d). While these regulatory policies are justified as attempts to maintain ‘fair competition’ (IAAF, 2006; 2011; 2018),

they conceal deeper cultural anxieties about the embodiment of femininity and the cultural investment in maintaining the sex/gender binary (Cavanagh & Sykes, 2006; Ritchie, 2003).

This thesis closely examined the IAAF/WA's policies regulating the participation of intersex\* female athletes to better understand how the surveillance and medical control of non-binary athletes comes to be justified and widely accepted – and how it can be resisted. I noted that a Foucauldian conception of power as not merely repressive but as productive of knowledge and of subjectivities provides a better framework for this analysis. Further, the understanding of sex as discursively constituted enabled a closer examination of the development and materialisation of the biomedical norms of 'femaleness' in the context of athletics. A discourse analysis of the IAAF's 2006, 2011, and 2018 policies also identified the deeper problematics structuring these policies and their construction of 'females with hyperandrogenism' as abnormal and threatening. Examining the enforcement of these policies in the case of Santhi Soundarajan, Dutee Chand, and Caster Semenya provided insights into the material and lived effects of these policies for those athletes who are deemed 'abnormal'. These policies not only cause them professional difficulties but also render them vulnerable to invasive medical examinations and possibly harmful treatments, breach of privacy, potential stigmatisation that can harm their mental and physical health.

Discourse analysis of the media coverage surrounding these athletes analysed the popular constructions of these athletes as problematic and examined the shared assumptions and taken-for-granted truths about 'sex' and its relation to 'natural' athletic abilities which underpin both media coverage and the policies. When these policies were challenged in the Court of Arbitration for Sport (CAS), the CAS relied primarily on medical experts to resolve the cases and ultimately allowed the 2018 DSD regulations to stand, even while

acknowledging the potential harm that its enforcement could cause intersex\* female athletes. The analysis of CAS's judgement in these cases confirms the close imbrication of juridical and disciplinary mechanisms of power in organising the space of competitive athletics and producing 'normal' female athletes and intersex\* female athletes as particular kinds of subjects to be governed. This thesis is an intervention in the ongoing debate about the regulation of entry into women's sports events, a debate which is nowhere close to being settled. In the following sections, I aim to map out some of the implications of this study for further examination of the perpetuation of the hierarchical gender binary in and through the regulation of sexually ambiguous bodies in sport.

### **8.1 Demanding the Right to 'Problems'**

In the years following Dutee Chand and Caster Semenya's appeals in CAS, debates about the participation of trans\*, intersex, and non-binary athletes have acquired greater urgency, symbolic importance, and political valence. While the increased visibility and success of non-binary athletes has complicated a simplistic binary understanding of sex/gender and raised questions about the inevitability of gender segregation in sport, it has also triggered more formal regulations and restrictions on the participation of trans\* women and intersex\* women in sports women's events. Fears that these athletes – specifically trans\* women – threaten the “integrity and future of women's sport” have been voiced not only by the IAAF/WA president Sebastian Coe and his ilk, but also by trans-exclusionary radical feminists and conservative politicians (Aarons, 2022; Save Women's Sport, 2021a; K. Barnes, 2022; Baeth & Goorevich, 2022). Such fears of a trans\* takeover of women's sport have concrete effects, as evidenced in the slew of exclusionary policies adopted by several International Federations (IFs) and even governments – at last count, twenty states in USA had banned the participation of trans\* women in women's school sports. Lawmakers admitted that such bans were pre-



emptory, rather than responses to actual issues caused by the participation of trans\* athletes (Crary & Whitehurst, 2021). A preliminary examination of these policies shows that they share similar patterns of problematisation of non-binary athletes and there are commonalities in the way that medical knowledge and expertise are used to either normalise or exclude non-binary athletes.

### 8.1.1. New Policies

Women's Tennis Association (WTA) adopted a Gender Participation Policy in 2018 to enable a “safe, competitive and friendly environment that is inclusive, fair and free of discrimination” for the players (WTA, 2018, p. 1). The policy allows women with hyperandrogenism – those who “have been legally and psychosocially female since childhood (including pre-pubertal sex re-assignments)” – to compete without any restrictions (WTA, 2018, p.2). This avoids rendering muscular female athletes suspicious and problematic by default and therefore liable to medicalised surveillance. Trans\* women, though, are required to undergo “hormonal treatment for gender transition” and maintain their serum testosterone level at below 10 nmol/litre for at least a year before being eligible to compete (WTA, 2018, p. 2). By drawing on the norms for ‘female’ level of testosterone set in 2011 IAAF/WA policy, the WTA policy reflects and reinforces the construction of testosterone as *the male* hormone and reifies its importance and relevance in categorising athletes.

In 2021, two years after CAS's ruling upholding the IAAF/WA's 2018 DSD regulations, the International Olympic Committee (IOC) released its framework on “Fairness, Inclusion and Non-Discrimination on the Basis of Gender Identity and Sex Variations”. The framework encourages international federations (IF) to develop their own sport-specific eligibility

criteria, in keeping with “ethical, cultural, social and legal aspects that may be relevant in their context” (IOC, 2021e, p. 1). The framework promotes ten key values: inclusion, prevention of harm, non-discrimination, fairness, no presumption of advantage, evidence-based approach, primacy of health and bodily autonomy, stakeholder-centered approach, right to privacy and periodic reviews (IOC, 2021e). In focusing on “evidence” and “health”, the framework subtly highlights the importance of and grants legitimacy to the use of medical knowledge and expertise in developing and enforcing these regulations. This reflects and reproduces the privileged position of medical experts as the legitimate gatekeepers of people’s access to gender categories.

The IOC framework aims to “promote a safe and welcoming environment for everyone” while also “ensuring fairness ... in the women’s category”, which is premised on the construction of the interests of ‘normal’ female athletes as opposed to the unconditional inclusion of non-binary athletes (IOC, 2021e, p.1). Further, the framework provides guidelines on the values that it seeks to promote, but it cannot exhaustively determine how they will be interpreted and implemented. There are continuing contestations over the substantive meaning assigned to values such as ‘inclusion’, ‘non-discrimination’ and ‘fairness’ and the ways in which these values are interpreted and realised not only in the context of sports legislation but in gender equality-related legislations and regulations in general. In these contestations, as seen in Dutee Chand and Caster Semenya’s appeals in CAS, these values can be interpreted in ways that perpetuate the exercise of normalising power over non-binary athletes and conserve the heteropatriarchal status quo.

Following the release of IOC’s framework, several IFs including the Swimming Federation (Fédération Internationale de Natation [FINA]) and World Rugby enacted regulations to

regulate entry into women's category. In October 2021, World Rugby became the first IF to bar all trans\* women who have transitioned post puberty from participating in women's events citing concerns about the safety of cis women (Brassil & Longman, 2020; "Transgender Women Guidelines", n.d). FINA followed suit in June 2022, with a policy that was introduced to the press as a "policy on gender inclusion" (FINA, 2022a). Echoing similar concerns for "physical safety within its competition categories", FINA (2022b) also barred trans\* women and women with DSDs who have experienced "any part of male puberty beyond Tanner Stage 2" from participating in women's category (p. 7). In justifying its policy, World Rugby argued that in contact sports, given the risk of injuries, ensuring player safety should override considerations of fairness and inclusion ("Transgender Women Guidelines", n.d.; Pike, 2021). Given the enduring gains in height, bone structure and lean body mass that trans\* women who have undergone a male puberty are said to have acquired, it is considered risky and unsafe for cis-women to play with trans\* women, even if the latter reduce and maintain their testosterone at 'female' levels ("Transgender Women Guidelines", n.d.).

Excluded from competing in women's competitive events, Trans\* athletes are given the opportunity to play in the 'open' category and in women's teams in non-contact versions of the sport ("Transgender Women Guidelines", n.d). World Rugby currently does not have a standard policy to cover athletes with "Differences of Sex Development" (DSD) as work on developing separate guidelines that take into consideration the myriad possible variations and the differential impact they could have on athletic performance is still underway. While this acknowledges the complexity of sexual development, it also indicates the drive to map out these complexities and control the terrain by regulating even minor differences in sexual developments and any athletic advantages that might accrue from such differences.

World Rugby's exclusionary policy has had a cascading effect with FINA adopting a similar policy and other IFs such as FIFA and IAAF/WA also expressing their intent to revisit their existing policies (Evans, 2022). FINA's policy reiterates the continuing need for separate men's and women's competition categories to provide equal opportunities for "*both biological sexes*" (emphasis mine) and to ensure "competitive fairness", which would invariably have discriminatory and exclusionary effects against trans\* women and women with 46XY DSD (FINA, 2022b, p. 1). Such effects are justified as ineluctable, if undesirable, by-products of the attempt to protect women's sports (FINA, 2022b). In January 2022 International Federation of Sports Medicine and the European Federation of Sports Medicine Associations' Joint Position Statement which faulted the IOC's framework for insufficient attention to "the scientific, biological or medical aspects" of how "high testosterone concentrations, either endogenous or exogenous, confer a baseline advantage for athletes in certain sports" such that "it is clear to uphold the integrity and fairness of sport that these baseline advantages of testosterone must be recognized and mitigated" (FINA, 2022b, p. 2; Pigozzi et.al., 2022). Drawing on this, FINA's policy, like that of World Rugby, also focuses on enduring advantages in stature and musculature which persists even if testosterone is reduced through hormone therapy. Accordingly, the policy differentiates between trans\* women who transition before puberty and those who transition after having undergone a 'male' puberty. While the former are allowed to compete in women's events if they maintain their serum or plasma testosterone level below 2.5 nmol/litre, the latter are limited to participating in "open events that FINA may develop in the future" (FINA, 2022b, p. 9). In justifying these regulations, sporting federations note that their primary ethical responsibility is towards its "community of players" (cf. Pike, 2021, p.); however, this community is imagined in a way that it implicitly consists only of cis-gendered athletes – trans\*, intersex and non-binary athletes are seen as outsiders seeking entry into this community.

### ***8.1.2 Old Problematisations***

While these policies differ on the specifics – they draw lines of separation at different points for marginally different reasons – they all share the same underlying problematisations. Like the Eligibility Regulations analysed in this thesis, these policies also attempt to ensure ‘fair competition’ for ‘normal’ female athletes while allowing for the (conditional) inclusion of trans\*, intersex and non-binary athletes (Pike, 2021; World Athletics, 2018; Davis, 2022; International Olympic Committee, 2021; FINA, 2022b; “Transgender Women Guidelines”, n.d.). They are also predicated on the interrelated beliefs that ‘sex’ is merely biological and that unearthing incontrovertible scientific truths about sexual characteristics and their relation to athletic capacities of the body can ensure better policy making. This understanding of the ‘problem’ facing sport is dominant and cuts across otherwise entrenched ideological divides and political differences.

Conservative politicians who have arrogated to themselves the responsibility for defending ‘women’, those at the helm of sports’ governing bodies, trans-exclusionary radical feminists and organisations seeking more inclusive environment for non-binary athletes all seem to be in agreement on this (Baeth & Goorevich, 2022; Aarons, 2022; Save Women’s Sports, 2021a; Women’s Sports Policy Working Group, n.d.). There are important critiques of specific policies and policy-making procedures (Pielke, Tucker, & Boye, 2019; Kidd, 2018; Karkazis et al., 2012), challenges to particular lines of ethical reasoning (Camporesi & Maugeri, 2010; Wiesemann, 2011; Camporesi, & Hämäläinen, 2021a; 2021b), differing interpretations of scientific evidence (Healy et al., 2014; Jordan-Young & Karkazis, 2019; Karkazis, & Jordan-Young, 2020); but even within much of this critical academic literature, there is a tacit acceptance of the underlying problematics structuring these policies. This is confirmed by Jensen, Schorer & Faber’s (2022) systematic review of 87 articles published about intersex

athletes in the last two decades. This review noted that the main policy issue is generally presented as “creating social justice for intersex elite athletes while maintaining competition fairness” (p. 27).

Most of the articles surveyed also evinced respect for three core values: “social justice for intersex elite athletes, competition fairness, and *evidence-based practice*” (Jensen, Schorer & Faber, 2022, p.24). This demand for “evidence-based practice” is also echoed by organisations such as Women’s Sports Policy Working Group, whose stated aim is to challenge the blanket exclusion of trans\* women and instead develop research-informed policy suggestions to balance inclusion and fair competition. The organisation notes that “competitive sports – like pregnancy and medicine – require a science-based approach to transgender inclusion” (“Help us affirm”, n.d.). This call for “evidence” – underpinned by an implicit faith in the value-neutrality of scientific evidence – reflects and reproduces the legitimacy of medical knowledge as the arbiter of truths about ‘sex’ and the impact of ‘biological sex’ on athletic performance. Medical knowledge continues to have a preeminent role in developing policies even as sports governing bodies are drawing on legal and ethical expertise when developing policies and involving current and former athletes as important stakeholders in these policy decisions. FINA noted that its working group for the Policy on Eligibility consisted of “(a) an athlete group [including transgender athletes and coaches], (b) a science and medicine group ... and (c) a legal and human rights group” (FINA, 2022b, p. 1–2). World Rugby, for its Transgender Guidelines consulted “independent experts in the fields of performance, physiology, medicine, risk, law and socio-ethics” (“Transgender Guidelines”, n.d.). Even as policy inputs are being sought from a wider range of stakeholders and expertise in legal and ethical matters are being credence, medical knowledge and expertise still take precedence and ethical considerations are made subservient to the

available (and expected) scientific evidence on the effects of testosterone on sexual development and athletic performance (“Transgender Guidelines”, n.d; FINA, 2022b).

These policies are dynamic in that they explicitly state their openness to revisions in the future “to take account of any new evidence and/or relevant scientific or medical developments” (IAAF, 2018, p. 2; cf. FINA, 2022b, p. 10). World Rugby has further formalised this process with a regular three-year review of its guidelines and the commitment to fund research into “transgender participation” as one of the priority research areas (“Transgender guidelines”, n.d.; “Funding priorities”, 2022.). By remaining open to modifications, these policies appear to be progressive; however, I argue that such selective openness enables them to be responsive to potential challenges to their regulatory regime. The control of non-binary athletes continues even if specific forms of control – particular policies – change over time. This is evidenced in the revisions made to the IAAF/WA’s policies, where the 2018 policy – which draws on evidence from Bermon and Garnier’s (2017) study and was funded by the IAAF/WA – not only continues to regulate the entry of ‘women with DSDs’ into women’s athletics events but, arguably, intensifies such control by halving the testosterone limit to 5 nmol/litre from 10nmol/litre.

These policies provide the impetus for research into sexual differences in physical capacities and also a field where these insights become applicable and testable in a highly visible way, given the popularity of sport. The focus on generating evidence in this area exposes intersex\*, trans\*, and non-binary athletes to further medical examinations, evaluations and ongoing surveillance. By earmarking funding for research into the impact of testosterone on men’s and women’s athletic performance (“Transgender Guidelines”, n.d; IAAF, 2018, p.2) International Federations (IFs) and sports governing bodies set the research agenda and

influence what kinds of hypothesis will be formulated and tested. Such research which depends on the surveillance and observation of non-binary athletes enables the production of knowledge which is in turn used to intensify the regulation and control of these athletes, creating a loop between mechanisms of power and knowledge production. Identifying the influence of powerful institutions on the production, dissemination and strategic use of knowledge is important. Additionally, a Foucauldian conception of power/knowledge nexus enables us to go beyond identifying such external influence and interference in the production of knowledge and examine how particular ‘truths’ are produced within the discursive limits placed on what can be meaningfully thought and said, and is shaped by disciplinary boundaries, systems of constraints and incitements to speech, formal recognition of expertise and institutional support (Foucault, 1981).

The agreement across the board regarding how to approach the question of the participation of non-binary athletes in sport is grounded in accepted truths about the sexed body, the objectivity and value-neutrality of scientific knowledge, and the legitimate aims and purpose of sporting activity. My analysis of the discussions around IAAF/WA’s Eligibility Regulations has shown that they function within the framework of sport exceptionalism and attendant conceptions of sport as ‘comparative tests’ of particular physical abilities, conducted under conditions of equality. Separating competitors by ‘sex’ and ensuring “physiological equivalency” (Gleaves & Lehrbach, 2016) between competitors within the same category – through medical interventions – is then seen as necessary to secure these conditions of equality. These shared conceptions themselves are not subjected to critical analysis, which illustrates the ways in which dominant discourses exercise limits on what can be meaningfully thought and said about a topic (Foucault, 1981). When analysing the policies to regulate entry into women’s events, going beyond considering the efficacy of the policy in



resolving the problem it addresses and examining instead how the policy constitutes the problem to be resolved and produces subjectivities in relation to these problems enables a better understanding of the ways in which power is exercised over non-binary athletes. Examining the shared beliefs that underpin the problematisations and identifying the gaps and silences therein – noting what remains unproblematised – provides an opening for resisting the dominant problematisations (Bacchi, 2014) and posing different questions about the participation of non-binary athletes in sport.

## **8.2. All is Fair?**

Even as sports governing bodies justify these policies as necessary to ensure fair competition, there is little critical discussion on what constitutes fairness or fair competition. When organisations such as Fair Play International attempt to provide a positive definition of the closely related concept of ‘fair play’ the tensions and contradictions inherent in the notion of ‘fair competition’ and in the efforts to enforce it in contemporary professionalised high-performance sport become more apparent (Fair Play, 2015). There have been some sustained attempts to rethink the notion of ‘fairness’ in sport and suggestions to develop sport-specific criteria, instead of global criteria for fairness. Suggestions also include creating competition categories and regulating advantages on the basis of physiological characteristics that are advantageous to particular sports rather than focusing on sex-related biological characteristics (Camporesi, 2019; 2020; Camporesi & Hämäläinen, 2021a, 2021b). However, even in these discussions on achieving fairness by regulating athletic advantages, the focus remains on advantages linked to individual physiology, which both draws on and further strengthens the understanding of athletic excellence as deriving from natural physical characteristics which are honed through sustained training. This understanding of athleticism is also presented in

anti-doping regulations which distinguish between training and the consumption of drugs that enhances performance by altering the body's biochemistry (Loland & Hoppeler, 2011).

In the analysis of the Eligibility Regulations, I noted some of the effects of this relative lack of critical discussion on fairness and the focus on 'fair competition' alone. In addition to individualising performance, it also reifies the field of competition while obscuring the training conditions and any inequalities in access to training resources and coaching expertise that can impact athletic performance. This concern with only the field of competition in relation to fairness also obscures the effects of discrimination and stigmatisation that non-binary athletes face, much of which is experienced outside of competition settings. Effects of discrimination that the Eligibility Regulations themselves might engender, the effects of which are felt outside the field of competition, are not considered material to the assessment of the policies' desirability and legality, as evidenced in the CAS rulings in Caster Semenya's case.

Apart from critical engagement with the substantive content of fairness in the context of sport and sports competitions, the construction of fair competition as *the* essence of sport is also starting to be brought under scrutiny. As noted in Chapter 4, the currently dominant understanding of sport as 'comparative tests' where athletes are locked in an adversarial battle has a history, closely enmeshed with the rise of industrial capitalism and the cultural valorisation of individuality, competitiveness and fairness (Gleaves & Lehrbach, 2016; Guttmann, 1978; Brohm, 1978/1989). The institutionalisation at the global level of this vision of sport was marked by several contestations and challenges from feminists and those supporting workers' sport movements who sought to articulate an alternate vision for sport. While some feminists demanded inclusion for women within this sporting culture, others

sought to develop an alternative sporting culture and ethos built on co-operation between competitors and a focus on balanced physical activity rather than pushing the body to its limits (Hargreaves, 1994; Cahn, 2015; Lenskyj, 1986; Buzuvis, 2020). As these contestations indicate, there is no trans-historical, unvarying essence of sport underpinned by ‘fairness’ or ‘fair play’, but this understanding of sport has a particular history and is relatively recent (Gleaves & Lehrbach, 2016).

### **8.3. Medical Expertise and the Construction of ‘Sport Sex’**

Building on the conception of sex as not merely biological but discursively constituted as such (Butler, 1990; 1993; 2004) facilitates an examination of the norms through which ‘sex’ is materialised in the context of athletics. For the purposes of regulating entry into women’s category, sports governing bodies have, since at least the 1940s, relied on biomedical criteria to establish ‘femaleness’. These criteria did not merely identify the ontological truth about the sexed body but constructed the appropriately female athletic body through a combination of corporeal indicators of ‘sex’ and medical diagnostic measures meant to identify these indicators (Erikainen, 2020). The shift from physical examinations of athletes to laboratory-based tests to establish femaleness entailed a concomitant shift in the determining criteria from observable or phenotypical characteristics to those characteristics that are not visible to the naked eye – such as the genotype and hormones. On the one hand, this change was seen as progressive as athletes were no longer subjected to demeaning ‘nude parades’ (Heggie, 2010; Rupert, 2011), but on the other and this shift entrenched the importance and relevance of medical knowledge and expertise in determining ‘true’ biological sex rather than the apparent sex, or even the athlete’s own understanding of their ‘sex’. While medical knowledge and expertise are granted institutional legitimacy in determining the true sex of the athlete, other kinds of knowledge about sex, in contrast, are relatively devalued and

rendered irrelevant. This was observed in the CAS's characterisation of sociologist and bio ethicist Dr Katrina Karkazis' testimony as mere "sociological opinion, which does not equate to scientific and clinical knowledge and evidence" (*Chand v. AFI & IAAF*, 2018, p. 134).

Alice Dreger notes that in the late 1800s and early 1900s, as male gynaecologists were seeking professional respectability and social legitimacy, the process of determining sex in cases of sexual ambiguity provided an avenue to establish their expertise while also giving them greater access to patients' bodies. Thus, the hermaphroditic/intersex body, appropriateness of using medical examinations to determine one's 'true' sex, and the legitimacy of gynaecological expertise in this area came to be co-constituted (Dreger, 1998). Similarly, with the process of gender verification in sport, sexually ambiguous bodies once again become the terrain for further entrenching the legitimacy of medical knowledge and expertise in managing ambiguities and establishing 'true' sex. Particular kinds of knowledge and legitimate medical expertise about sexual differences and the appropriately female athletic body come to be co-produced in this process of determining an athlete's sex (Pape, 2019).

When defending the 2018 regulations in CAS, the IAAF/WA distinguished the athlete's gender identity from their underlying biological 'sport sex' – determined on the basis of genotype and hormone levels. Establishing an athlete's 'sport sex' was deemed relevant for separating athletes into different competition categories based on their expected performance potential, in the interest of ensuring meaningful competition within categories (*Semenya & ASA v. IAAF*, 2018). This construction of 'sport sex' and its legal justification highlights the ways in which institutions can argue for the relevance of certain 'sexual' characteristics for

performance within that institution and base their determination of the person's sex on these characteristics.

The IAAF/WA's hyperandrogenism and DSD policies are paradigmatically different from earlier gender verification mechanisms since they do not merely identify and exclude ineligible athletes but seek to enable – at least in principle – intersex\* female athletes to compete in the women's category by undergoing hormone therapy to meet biomedical criteria to be considered appropriately female. Through these regulations, 'sex' is quite literally constructed by imposing biomedical norms of 'femaleness' on truant bodies through medical interventions. The explicit construction of sex challenges its naturalness and also fractures expectations of continuity of sexual identity across different social institutions – as 'sport sex' is treated as distinct from legal sex and gender identity. Even as such explicit imposition of gender norms questions the assumptions about the 'natural' essence of femaleness, the embodiment of sex is enforced in ways that conserve the gender binary.

The modification of testosterone levels is only permitted in ways that confirm the gender binary – intersex\* and trans\* women are required to reduce their testosterone to below 'male' range while trans\* men are given therapeutic use exemption (TUE) for testosterone so that they can increase the hormone to male levels. The contrasting suggestion that all athletes be allowed to use testosterone to improve their performance, so that gender segregation becomes unnecessary, is considered both ethically and medically unsound – such biochemically driven enhancements of performance are considered contrary to the spirit of sport and concerns are expressed about the potential health issues it could cause athletes. However, when similar health concerns are raised about currently available hormone reduction therapies that non-normatively gendered female athletes are mandated to undergo, they are ignored by the

IAAF/WA and the CAS (*Semenya & ASA v. IAAF*, 2018, pp.153–154). Just as in the context of testing for pharmaceutical drugs, medical risks are not objective facts but constructed through practices of risk assessment (Oudshoorn, 2003, p. 86–110). I would argue that the prohibition of blanket use of testosterone derives more from the investment in maintaining the gender binary than concern for fairness or for athletes' health.

#### **8.4. Open Category: Segregation by a New Name**

While the IAAF/WA and IOC explicitly state that they recognise trans\* and non-normatively gendered female athletes' right to identify as women, this 'recognition' does not carry any functional weight within the institution as it does not translate into the right to compete in women's category. In the 2018 policy, the IAAF/WA states that 'relevant athletes' covered by the regulations who cannot meet the criteria to compete in women's category would be allowed to compete "in any applicable intersex or similar classification that may be offered" (IAAF, 2018, p. 4). This proposal for a separate 'intersex' category solidifies the separation between 'normal' female athletes and those deemed 'abnormal' on the basis of established biomedical norms of femaleness. Rather than make the need to regulate entry into women's category unnecessary, such a move would likely necessitate the development and enforcement of a different set of biomedical norms to regulate entry into this new category, thereby exposing female athletes to continuing medical scrutiny and surveillance and further establishing the authority and control of medical professionals over these athletes.

In other sports, 'open category' is being mooted as a potential way to allow non-binary athletes to participate in sport while also 'protecting' women and maintaining the sanctity of women's sport. Both World Rugby's and FINA's policies stated that trans\* and intersex\* female athletes who do not qualify to compete in women's category can participate in 'open'

category events if and when they are offered in the future. However, none of the governing bodies or IFs have engaged substantially with the practicalities and the feasibility of implementing such a competition category in their sport across different age groups, competition levels and in different countries. For instance, New Zealand Rugby League chief already expressed concerns about not having sufficient player base to offer a separate ‘open category’ (George, 2022). It is conceivable that other national federations might also have similar concerns, which would severely limit sporting opportunities for non-binary athletes who have been excluded from competing in the category that aligns with their gender identity. This proposed solution also does not unsettle existing ideas about male athletic superiority and the institutional infrastructure built on this presumption which funnels greater public attention and funding to men’s sport while women’s sport remains relatively under-resourced and underappreciated. Within the context of these existing deeply rooted inequalities, finding support and funding for another ‘open’ category, if and when it is implemented by governing bodies and IFs and accepted by non-binary athletes, would be challenging.

Instituting an ‘open’ category, in addition to ‘male’ and ‘female’ categories would only serve to invalidate the gender identity of those athletes seeking recognition and acceptance as women. Separating trans\* and intersex\* women into a different category – justified on the basis of supposedly incontrovertible ‘scientific evidence’ about biological differences – would bolster the public perception that they are not really women, and that ‘real’ women need protection from them. By institutionalising the notion that “*biology has to trump identity*” (Semenya & ASA v. IAAF, 2018, p. 132) in certain contexts, maintaining a distinction between the real biological sex of a person and their gender identity is rendered necessary. By giving credence to biological essentialism, even as such essentialism further

strengthens the hold of the medical establishment over non-binary people and can legitimise existing prejudices against trans\* women and intersex\* women. Rather than create separate but presumably equal opportunities for non-binary athletes to participate in sport, ‘open’ category would only corral these athletes into a separate, under-resourced competition category while feeding popular perceptions of these athletes as abnormal, in relation to normal male and female athletes. By othering these athletes in a highly visible and institutionalised manner, it can perpetuate discrimination against trans\* and intersex\* people in the society.

### **8.5 Reorganising the Field**

While the IAAF/WA’s policies discursively construct the “women with hyperandrogenism” as abnormal and in need of normalisation, such construction is not absolute or exhaustively determining, but is met with resistance. This is exemplified in Dutee Chand and Caster Semenya’s resistance to the demand that they fundamentally alter their bodies to be allowed to compete as women. By sharing their experience of being subjected to invasive medical tests – without their informed consent – in pursuance of these policies, they broke the silence that had shrouded the enforcement of these regulations and highlighted the adverse impact they have on targeted athletes. Their experiences also initiated mediated and public discussions about the rights of those who do not meet the gender and sexuality norms of the society. Chand also found assistance from gender rights advocates who helped her appeal against the 2011 policy in CAS, even though she was not formally supported by the Athletics Federation of India. Semenya also eventually filed an appeal against the 2018 iteration of the policy in CAS with support from Athletics South Africa who was also a party to the appeal. As Chand and Semenya fought to make the court proceedings publicly available, these cases



have initiated broader debates about the treatment of intersex\* female athletes and prompted at least minor reconsiderations of regulatory policies.

In their legal appeals, Semenya and Chand argued that the IAAF/WA's Eligibility Regulations discriminated on the basis of particular sexual characteristics and were in violation of several human rights regulations. However, based on the understanding of the rights of 'normal' female to fair competition as opposed to the rights of intersex\* female athletes to participate in women's sport, the discrimination inherent in these regulations were deemed necessary and proportionate to the aim of protecting 'normal' female athletes. Further, these cases also highlighted the practical difficulties of using gender non-discrimination laws to protect the interests of intersex women, who are not always seen as rightfully belonging to the protected category of women, which is well documented in legal scholarship (Zaccone, 2020; Larson, 2011).

These legal appeals began by accepting the broader institutional structures of modern sport and the understanding of the legitimate aim of any sporting activity as the pursuit of excellence under conditions of equality, and the necessity of sex segregation to realise these aims. Given this common ground and the general acceptance of the meaning and purpose of sporting activity, these cases only narrowly challenged the IAAF/WA's Eligibility Regulations targeted at intersex\* female athletes without addressing, what I argue are the socio-cultural roots of such targeting of intersex\* female athletes. These appeals sought to expand the category of 'women' to include intersex\* women, who are assigned female at birth and have lived as women and whose supposed athletic advantages are 'natural' and therefore should be deemed permissible. There is tacit agreement here for the need to regulate trans\* female athletes as evidenced in the argument that there is no need to regulate someone

who “has continuously lived and identified as a woman from birth” (*Semenya & AFI v. IAAF*, 2018, p. 32). This approach, while asserting a claim for intersex\* women, risks reifying ‘natural’ sex as determined at birth and consequently othering trans\* female athletes. This kind of distinction between intersex\* and trans\* female athletes is made in the latest “Gender Participation Policy” of Women’s Tennis Association [WTA], which places no restrictions on intersex\* and trans\* women who have transitioned prior to puberty (WTA, 2018, p.2).

Challenging the medical surveillance and control of intersex\* and trans\* athletes in sport requires an examination of the very terms in which the debate is conducted, the “forms of meaning and discourse [that] render certain agents illegible as the kind of bodies that demand protection” (Feola, 2014, p. 132; cf. Butler, 2004). The problematisation of non-normative female athletes in sport is not exceptional but a reflection and reinforcement of the general socio-cultural discomfort with and the medical control of sexually ambiguous bodies that destabilise the dominant notions of sexual dimorphism (Fausto-Sterling, 2000a; 2000b; Dreger, 1998; Carpenter, 2018). Within the sex-segregated world of contemporary high-performance sport (as in society in general) one has to assume a single, clear and coherent ‘sex’ in order to be recognisable as a rights-bearing subject with a claim to protection. Athletes whose bodies defy the expected alignment between chromosomal, hormonal gonadal and phenotypic sex and their coherence with gender identity are rendered problematic and abnormal, and subjected to normalising measures.

For intersex\* female athletes, the demand to become an unambiguously sexed athletic subject takes the form of the injunction to undergo medical procedures to meet the appropriate biomedical norms for ‘femaleness’. Their recognition as legitimate athletes and their ability to participate in sport are thus made conditional upon them meeting these norms. In several

sports, trans\* female athletes are effectively denied any recognition at all. Sports' governing bodies and politicians use the rhetoric of vulnerability to speak of 'normal' female athletes as threatened by intersex\* and trans\* athletes. However, in the absence of institutional recognition for non-binary athletes on their own terms and their construction as 'abnormal', it is these athletes who are rendered vulnerable to the loss of professional sporting opportunities, loss of privacy, physical and psychological harm from enforced medical interventions, and potential social stigmatisation. If "[p]articipating in sport (or not participating) is one way individuals make themselves socially intelligible within a community's collective text", then the enforced exclusion of trans\* and intersex\* women renders them unintelligible within this text.

Protectionist arguments about the need to regulate entry into women's competition category are inseparable from the construction of women as inferior athletes and liable to lose any sporting contest with trans\* and intersex\* athletes who are stronger on account of their male-typical advantages. These arguments operate in the context of a sporting culture that has institutionalised and assigned higher value to tests of strengths and physical abilities which generally advantage athletes with a tall build and muscular strength, characteristics generally associated with masculine bodies. Consequently, men are celebrated for their competitiveness and athletic achievements and receive more popular support, attention and funding relative to women. Given the culturally dominant understanding of athletic performance as a display of natural abilities, even though this 'natural'ness and authenticity of athletic performances have been under scrutiny since at least the 1960s (Henne, 2014), men are presumed to be naturally superior athletes. Some feminists see the need for a separate women's category as a practical necessity to address these extant inequalities in resources, opportunities and the differential cultural value placed on different kinds of physical skills rather than as a concession to the

unbridgeable gap in the performance potential between men and women owing to biological differences (Buzuvis, 2020; Cahn, 2011). However, given the dominant understanding of women's sports category as a protective measure, entry into this category is regulated. In the name of protection, such regulatory measures expose all female athletes to medical surveillance and control. Additionally, it strengthens the view of 'normal' women as passive, weak and in need of protection while 'masculine' female athletes, i.e., trans\* and intersex\* female athletes, are presented as threats.

Rather than accepting that the interests of 'normal' female athletes as threatened in this way by the participation of trans\* and intersex\* women, there is scope to question the institutional structures of modern sport that disadvantage all female athletes. Accepted notions about female athletic inferiority have important consequences outside of the sporting arena as they feed into more generalised perceptions about women as 'weaker' and generally not competitive or aggressive enough to succeed. Hence, critically re-examining the premises that underpin the regulation of non-binary athletes can enable an acknowledgement of common interests among all women, thereby challenging the opposition posited between the interests of 'normal' female athletes and intersex\* and trans\* female athletes. This can enable the mobilisation of a feminist coalition that is not premised on biological essentialist understanding of 'female'ness, but on "loosely overlapping connections" – on a recognition of common issues faced under an unequal gender order that disadvantages women and femininity while also punishing those who transgress expected gender norms (Stone, 2005, p.4; cf. Butler, 1990).

The beginnings of such a potential coalition are already evident in the support being voiced for the participation of trans\* women in women's sport. In trans\* athlete Lindsay Hecox's

appeal against Idaho's ban against trans\* girls and trans\* women participating in women's school sports, she was joined in her appeal by an unnamed cis-female athlete who argued that the ban was discriminatory against all women since it could expose them to invasive tests if their gender was deemed suspicious (Brief for Appellees Lindsay Hecox and Jane Doe, *Hecox v. Little*, 2020). This shows a recognition of the ways in which policies that target 'masculine' female athletes disadvantage all female athletes by exposing them to medicalised surveillance.

There is still strong transphobic rhetoric about 'biological males' taking away sporting opportunities from women, and organisations striving to ensure that women's sport remains exclusive to cis women (Save women's sport, 2021b; Fair Play, n.d.). However, many cis female athletes themselves have been standing up in support of their trans\* peers. More than 300 swimmers (Kliegman, 2022), including Olympic silver medallist Erica Sullivan, signed a petition in support of Lia Thomas, a trans\* female swimmer whose success reignited debates about the inclusion of trans\* women in the National Collegiate Athletic Association (NCAA), especially in light of the new FINA policy (Cash, 2022). Popular arguments in support of the participation of trans\* women in women's sport are focusing not only on the biological aspects of sex and its impact on sporting performance but also on other tangible and intangible benefits of participation in sport. They have noted the importance of extending to trans athletes the benefits of being accepted and welcomed into the community of women athletes. In this vein, Erica Sullivan responded to concerns that women's sport needs protection thus:

As a woman in sports, I can tell you that I know what the real threats to women's sports are: sexual abuse and harassment, unequal pay and resources and a lack of women in leadership. Transgender girls and women are nowhere on this list. Women's

sports are stronger when all women—including trans women—are protected from discrimination, and free to be their true selves. (Sullivan, 2022)

The discussions around the participation of trans\* and intersex\* women in sport are expanding beyond narrow considerations of competition fairness and arguments for sports exceptionalism. This is prompting a reconsideration of the value of participation in sport that go beyond the imperative to win under conditions of ‘fairness’.

Sport is a cultural activity with wide-ranging narrative potential, that tells “meaningful narratives ... not only [about] an individual but also a community” (Gleaves & Lehrbach, 2016, p. 318; cf. Geertz, 1972; Alter, 2004; Bourdieu, 1993; Vertinsky, 2007; McDonald, 2007; Cahn, 2011). Contemporarily, in professionalised high-performance sport, this narrative potential has been used to tell the story of competition and relentless struggle for achievements – measured in terms of new records which alienates the achievements from the athlete while also building a narrative of potentially endless progress (Guttman, 1978). It is also used to highlight and naturalise sex differences and thereby legitimise a hierarchical gender binary in the society. Intersex\* bodies, then, can be understood as “glitches” that expose the tensions, contradictions, and cracks in the system of modern competitive sport. The definitional and ontological boundaries of sex/gender categories are challenged by “glitching bodies” that trouble the two-sex system and reveal the fragile, constructed nature of the coherence of ‘normal’ heterosexual bodies and identities (Linghede, 2018). The ‘problem’ then, lies not with particular ‘abnormal’ bodies but with the institution of sport that renders problematic bodies that don’t conform to gendered norms.

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How athletes are sorted, differentiated, and separated into competition categories speaks to how embodied differences are made to matter socially. Competition categories in sport are based on socially meaningful and recognised distinctions, rather than vice versa. These categorisations no more map onto ontological distinctions between bodies than sporting performances reflect natural physical abilities. However, the belief that sport highlights irreducible biological differences between the sexes remains strong. Challenging these beliefs can help us rethink the meaning and value we assign to sporting activity and imagine a different sporting culture that is not premised on confirming the ‘natural’ differences between the sexes. Non-binary athletes are challenging these entrenched beliefs and forcing a reconsideration of how we understand meaningful categorical differences between the ‘sexes’ not only in the context of sport but in society in general.

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