

What does it mean to be a woman in sports?

A Critical legal analysis of the jurisprudence by the Court of Arbitration for Sport

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ABSTRACT:

This article explores the definition of ‘sportswoman’ as put forward in the *Caster Semenya* case (2019) and the *Dutee Chand* case (2015) at Court of Arbitration for Sport (CAS). It analyses the structural and discursive factors that made it possible for the CAS to endorse a definition that reduces sex and gender to a matter concerning testosterone. By relying on the concept of intersectionality and analytical sensibilities from Critical Legal Studies, the article shows that framing the cases as scientific dispute, instead of as concerning human rights, significantly influenced the CAS decisions. Moreover, structural elements of international sports law, such as the lack of knowledge of human rights among CAS arbitrators and a history of institutionalising gendered and racialized body norms through sporting regulations, further aided the affirmation of the ‘testosterone rules’.

KEYWORDS: human rights, women, sport, intersex variation, Court of Arbitration for Sport, *Mokgadi Caster Semenya v International Association of Athletics Federations* ; *Dutee Chand v International Association of Athletics Federations*

1. INTRODUCTION

It goes to this idea that ... as we're making all of these amazing strides in society, in terms of increasing our social awareness, and making efforts toward ideas like diversity and equality, and just sort of creating this more inclusive world ... somehow sports should be an exception. It's this idea, for some people, that sports should almost be this haven, where it's O.K. to be closed-minded — like a bubble for all of our worst ignorance.

The decision in the *Caster Semenya* case by the Court of Arbitration for Sport (CAS), released on 1 May 2019, generated a lot of controversy within human rights and sporting communities. According to the CAS Award, women athletes such as claimant Mokgadi Caster Semenya, a South African middle-distance runner, can be banned from certain international women's track events if they have naturally produced testosterone above 5 nanomoles per litre (nmol/L) and are sensitive to testosterone.² The CAS panel thus legitimized the exclusion of women with certain intersex variations³ from specific women's competitions if they fail to medically lower their natural hormone production. The public reaction to this decision was mainly negative. Numerous mainstream media outlets supported Semenya and the World Medical Association described the testosterone rules as being 'contrary to international medical ethics and human rights standards'⁴. In light of the controversy raised by the *Caster Semenya* decision among human rights and sports experts, this article explores the discursive and structural factors that made it possible for the CAS arbitrators to accept a definition of 'sportswoman' reducing the matter to testosterone.

The outcomes of the *Caster Semenya* case and the *Dutee Chand* case, a previous CAS case concerning the testosterone rules, reveal many powerful assumptions on sex and gender existing in legal sporting communities. For instance, they show the arbitrators' opinion that women and men are clearly distinct and stable categories, that testosterone is exclusively a male hormone and that objectivity is attainable in the definition of gender. The concept of intersectionality and analytical sensibilities from the Critical Legal Studies Movement (CLS), such as the focus on boundary drawing, binaries, biases and structural components of

¹ Schilken, 'Pau Gasol: The NBA Is Ready for a Woman Head Coach and It's Becky Hammon', *Los Angeles Times*, 11 May 2018.

² *Mokgadi Caster Semenya v International Association of Athletics Federations & CAS Athletics South Africa v International Association of Athletics Federations* [2019] Court of Arbitration for Sport 2018/O/5794; 2018/O/5798.

³ Intersex variations are commonly used to refer to 'physical sex characteristics that do not fit medical norms for female or male bodies'. It is important to note that being *intersex* or having *intersex variations* does not necessarily influence a person's gender identity, but it usually describes physical body characteristics. Most people with intersex variations identify with the gender/sex that was assigned to them at birth. See: Morgan Carpenter and Intersex Human Rights Australia, 'Identification Documents', 4 January 2019, available at: ihra.org.au/identities/ [last accessed 25 May 2020].

⁴ The World Medical Association, 'WMA Urges Physicians Not to Implement IAAF Rules on Classifying Women Athletes', 25 April 2019, available at: wma.net/news-post/wma-urges-physicians-not-to-implement-iaaf-rules-on-classifying-women-athletes/ [last accessed 25 May 2020]. See also Villiers, "'This Life Sometimes Is so Unfair.'" How the World Responded to the Caster Semenya Ruling', *Business Insider South Africa*, 3 May 2019, available at: businessinsider.co.za/the-guardian-new-york-times-madeleine-pape-world-responds-to-caster-semenya-ruling-2019-5 [last accessed 25 May 2020].

international law, shall assist in revealing some of the power dynamics and assumptions which influenced the CAS decisions in the two relevant cases.

As the article shows, the mobilization of science and the conceptual separation between sports and human rights were the crucial factors affecting the outcome of the CAS proceedings. Framing the issue of defining ‘sportswoman’ as a scientific dispute, as opposed to a human rights and justice dispute, aided in legitimizing a reductionist definition of the complex issue due to dubious scientific evidence. This made it possible for the CAS arbitrators to argue that if legal regulations are based on ‘real’ sciences, they can provide objective definitions of women and men by drawing a clear boundary between these two categories. The equation of ‘legal’ with ‘scientific’ further allowed the panel to ignore the gendered and racialized effects of the testosterone rules. The structural elements of the CAS, such as the general lack of knowledge on human rights among CAS arbitrators and the historical role of international sports law⁵ in institutionalizing gendered and partly racialized body norms, enabled the arbitrators to support the testosterone rules.

Following the introduction, section II of this article provides an overview of the proceedings at the CAS and the mobilization of the notion of ‘science’ in the definition of women in sports. Section III explores the way in which the panel and expert witnesses involved in the two analysed cases drew boundaries between ‘sciences’ and ‘non-sciences’, which also follows gendered cleavages. In section IV, the concept of binaries is used to show that legal bodies, such as the CAS, strive to establish rigid and determinate categories for assuring their authority despite the impossibility of reaching determinacy in law. Section V analyses how the CAS panel labels gender and racial biases of the testosterone rules as extra-legal considerations and ignores them for the proportionality test; and Section VI, which precedes the conclusion, examines structural elements of the CAS that made the endorsement of the testosterone rules possible.

2. THE SCIENTIFICITY OF THE TESTOSTERONE RULES

The judicial discussion about the testosterone rules started with the *Dutee Chand* case in 2014. The Indian sprinter Dutee Chand filed a petition against the Athletics Federation of India

⁵ The existence of an independent body of law called ‘international sports law’ is still debated among legal scholars. For the purpose of this article, international sports law refers to all norms and regulations that govern the practice of sports at the international and regional level. See: Casini, 'The Making of a Lex Sportiva by the Court of Arbitration for Sport', in Von Bogdandy and Venzke (eds), *International Judicial Lawmaking: On Public Authority and Democratic Legitimation in Global Governance* (2012) 439; Davis, 'What Is Sports Law?' (2001) 11 *Marquette Sports Law Review* 211.

(AFI) and the International Association of Athletics Federations (IAAF)⁶ at the CAS, contesting the legality of the co-called ‘Hyperandrogenism Rule’⁷. This rule sought to exclude women athletes with naturally produced (endogenous⁸) testosterone levels within the ‘normal male range’, starting at 10 nmol/L, and who are sensitive to testosterone from competing in women’s sport events. In an Interim Award issued in 2015, the CAS concluded that the IAAF had not provided sufficient scientific evidence for substantiating the claim that women with endogenous testosterone levels above 10 nmol/L and sensitive to testosterone gained a significant comparative advantage *vis-à-vis* women with lower levels of testosterone. As a result, it suspended the rule for two years until the end of September 2017. During this time, the IAAF was invited to generate and present more scientific evidence proving the causal link between naturally produced testosterone and athletic performance.⁹

The IAAF ended up submitting two new scientific studies supposedly substantiating the causal connection between endogenous testosterone and athletic performance within the extended suspension period. However, the Court terminated the *Dutee Chand* case in 2018 without discussing the scientific value of these new studies. The reason for this was that the IAAF replaced the Hyperandrogenism Rule with new regulations, called Eligibility Regulations for Female Classification (Athletes with Differences of Sexual Development) (‘DSD Regulations’), in April 2018. These new regulations keep the measurement of testosterone for female gender classifications in sports, but inexplicably¹⁰ only apply to track events of distances between 400 meters and one mile. In addition, they reduce the allowed endogenous testosterone level of women athletes to five nmol/L, instead of 10 nmol/L as it previously was. During the proceedings in the *Caster Semenya* case, the IAAF clarified that it reduced the scope of

⁶ In June 2019, the IAAF announced to change its name to World Athletics. As I largely discuss events that occurred prior to this name change, I will refer to the federation as IAAF and not as World Athletics in this article.

⁷ Full title: IAAF Regulations Governing Eligibility of Females with Hyperandrogenism to Compete in Women’s Competitions, 2011.

⁸ The Hyperandrogenism Rule and the DSD Regulations regulate the production of *endogenous* testosterone, which is naturally produced by human bodies. *Exogenous* testosterone, on the contrary, is synthetically produced and taken in the form of supplements.

⁹ *Dutee Chand v Athletics Federation of India (AFI) & The International Association of Athletics Federations (IAAF)* [2015] Court of Arbitration for Sport CAS 2014/A/3759.

¹⁰ Semenya argued that the restriction of the DSD Regulations to certain running events seems arbitrary, since the empirical data presented by the IAAF, which Semenya’s team criticised for flawed research methods, shows a performance-enhancing effect of endogenous testosterone in several sport events not covered by the Regulations. Moreover, the data does not reveal a significant advantage of endogenous testosterone for 1500m and one-mile events, which do fall within the scope of the Regulations. The IAAF justified the scope of the Regulations by arguing that most ‘Relevant Athletes’ are competing in the events covered by the Regulations. See: *Mokgadi Caster Semenya*, *supra* n 2 at paras 58, 115, 155, 233, 607.

application of the DSD Regulations to women with ‘46 XY DSD’, meaning women who have XY chromosomes.¹¹

In June 2018, Semenya, who some media commentators described as the primary target of the IAAF’s regulatory efforts,¹² submitted in parallel to Athletics South Africa (ASA) a challenge against the new regulations at the CAS.¹³ A majority decision rejected the challenge, arguing that the DSD Regulations are ‘a necessary, reasonable and proportionate means of achieving the IAAF’s aim of preserving the integrity of female athletics’.¹⁴ This confirmed that the IAAF can lawfully demand athletes like Semenya to artificially reduce their endogenous testosterone levels if they want to compete in women’s restricted track events. However, even though the CAS upheld the DSD Regulations, it noted concern about practical aspects of implementing the regulations. These include the possibility that athletes experience difficulties to comply with the regulations and insufficient evidence that endogenous testosterone provide performance-enhancing effects in 1500m and one-mile events. In addition, it noted the possibility that the hormone therapies to suppress the natural testosterone production create significant negative side-effects.¹⁵ In May 2019, Semenya appealed the CAS decision at the Swiss Federal Supreme Court, whose power to review the decision is limited to assessing if it was compatible with fundamental principles of public order. After a first summary examination in July 2019, the Court lifted an initially installed Super-Provisional Order, which had allowed Semenya to continue competing in the restricted disciplines during the on-going proceedings. It reinstated the application of the DSD Regulations to Semenya by arguing that ‘Caster Semenya's appeal does not appear with high probability to be well founded.’¹⁶ At the time of writing, the Court had not yet taken a final decision on the case, but this is to be expected for 2020.

As it will be discussed in the next section, the ‘scientificity’ of the testosterone rules was the major issue debated by the arbitrators in the cases of *Dutee Chand* and *Caster Semenya*. The CAS arbitrators could have focused on a variety of questions, such as the rules’ gender and racial biases. Nevertheless, they focused almost exclusively on the question whether women with endogenous testosterone levels above the set threshold have a significant athletic advantage

¹¹ Court of Arbitration for Sport, ‘Media Release. Athletics. CAS Arbitration: Caster Semenya, Athletics South Africa (ASA) and International Association of Athletics Federations (IAAF): Decision’, 1 May 2019.

¹² Gibbs, ‘Caster Semenya Targeted by Track Federation with Racist New Guidelines Based on Faulty Science’, *ThingProgress*: 27 April 2018, available at: thinkprogress.org/caster-semenya-iaaf-target-1be64705e3c6/ [last accessed 25 May 2020].

¹³ Court of Arbitration for Sport, ‘Media Release. Athletics. Caster Semenya Challenges the IAAF Regulations for Female Classification at the Court of Arbitration for Sports (CAS)’, 19 June 2018.

¹⁴ Court of Arbitration for Sport, supra n 11.

¹⁵ *Ibid.*

¹⁶ Federal Tribunal, ‘Press Release of the Swiss Federal Supreme Court. Interlocutory Order of 29 July 2019 (4A_248/2019). The DSD Regulations Are, for the Time Being, Again Applicable to Caster Semenya’ at 2.

that justifies their exclusion from women's events for the purpose of creating 'fairness'. The Hyperandrogenism Rule, as adopted in 2011, succeeded a variety of previous sex verification procedures that have been strongly criticized for their reductionist view of sex and gender and for involving intrusive methods, such as genital inspections and public exposure.¹⁷ In order to distance the Hyperandrogenism Rule and the current DSD Regulations from previous sex tests, the IAAF stressed the rules' 'scientificity'.¹⁸ It contended that they are based on 'a broad medical and scientific consensus',¹⁹ and that previous rules were 'flawed and based on poor science'.²⁰ Even though the IAAF and its expert witnesses argued for the science-based nature of the regulations, Chand and Semenya's expert witnesses contested the claim that the rules 'are scientifically sound'²¹ and disagreed on the methods employed and the scientific validity of the evidence presented by the IAAF.

The reliance on the authority of science to justify the medical management of intersex variations is not a new concept.²² It carries on the legacy of John Money, a sexologist who promulgated the undertaking of non-consensual, irreversible, and cosmetic genital surgeries on intersex infants in the 1950s and 1960s. Money and colleagues strategically employed scientific language and encouraged parents to do the same in order to validate his dangerous medical model.²³ Scientific concepts and medical vocabulary were invoked to silence any voices that raised doubts about the necessity of subjecting intersex children to harmful genital surgeries in order to ensure the development of a 'normal' gender identity.²⁴ A more recent medical policy document, the Chicago Consensus Statement on Management of Intersex Disorders (2006), also uses medical terminology, such as the term *Disorder of Sex Development (DSD)*, to justify the undertaking of certain irreversible alterations of bodies of non-consenting intersex infants.²⁵ The current IAAF Eligibility Regulations adopted the medicalized DSD terminology, but the term

¹⁷ Buzuvis, 'Hormone Check: Critique of Olympic Rules on Sex and Gender' (2016) 31 *Wisconsin Journal of Law, Gender & Society* 29; Heggie, 'Testing Sex and Gender in Sports; Reinventing, Reimagining and Reconstructing Histories' (2010) 34 *Endeavour* 157.

¹⁸ Karkazis and Jordan-Young, 'The Powers of Testosterone: Obscuring Race and Regional Bias in the Regulation of Women Athletes' (2018) 30 *Feminist Formation* 1 at 17.

¹⁹ IAAF, 'Eligibility Regulations for Female Classification (Athletes with Differences of Sexual Development). Version 2.0' at para 1.1.d.

²⁰ *Dutee Chand*, supra n 9 at para 506.

²¹ *Ibid.* at para 226.

²² Carpenter, 'The Human Rights of Intersex People: Addressing Harmful Practices and Rhetoric of Change' (2016) 24 *Reproductive Health Matters* 74 at 75.

²³ Repo, *The Biopolitics of Gender* (2015) at 41–2.

²⁴ *Ibid.* at 41.

²⁵ Peter A Lee and others, 'Consensus Statement on Management of Intersex Disorders' (2006) 118 *Pediatrics* e488.

DSD refers therein to *Differences of Sex Development*, which is often employed as less stigmatizing alternative to the original term *disorder*.

Referring the power to (legally) define the concepts of sex and gender to the medical profession and biological sciences marks a relatively common phenomenon. For example, almost all countries that provide the possibility to change the legal gender in the civil registry and on identification documents require the applicants to provide a medical or psychological statement that ‘proves’ their gender identity.²⁶ The medical discipline is thus given the power to evaluate somebody’s ‘true’ gender or sex, which pathologizes anyone whose gender identity does not correlate to the gender/sex assigned at birth. The arguments and language used by the IAAF and IAAF expert witnesses in the CAS proceedings also pathologized athletes with endogenous testosterone levels above the permitted measures. For example, they placed the women concerned in direct opposition to ‘healthy women’²⁷ and argued that Regulations help ‘to protect the health of hyperandrogenic athletes’²⁸ and ‘to detect serious medical conditions’²⁹. This continues to frame intersex persons as in need to be ‘fixed’ through medical interventions, as once promulgated by Money and reflected in the 2006 Chicago Consensus Statement.³⁰

Interestingly, the decision by the CAS in the *Caster Semenya* case has not only led to an outcry by human rights activists³¹ supported by many mainstream media outlets,³² but many professionals from the medical and biological community have equally condemned the DSD Regulations. For example, as previously mentioned, the World Medical Association opposes the Regulations and advises all doctors around the world not to participate in their implementation. The reason for this is that it considers it unethical to prescribe healthy athletes medication to lower their endogenous testosterone without any medical necessity.³³ In addition, many endocrinologists and biologists have criticized the Regulations for being based on ethical and

²⁶ As of mid-2019, about ten jurisdictions worldwide have introduced unconditional gender recognition laws, which allow individuals to change their legal gender without fulfilling any specific requirements. See for example: English Translation of Argentina’s Gender Identity Law, Ley 26.743, 8 May 2012; Legislative Council California, Senate Bill No. 179, Chapter 853, 16 October 2017; Gender Identity, Gender Expression and Sex Characteristics Act, XI, 14 April 2015.

²⁷ *Dutee Chand*, supra n 9 at paras 188, 190, 195, 468.

²⁸ *Ibid.* at para 243.

²⁹ *Mokgadi Caster Semenya*, supra n 2 at para 306.

³⁰ *Repo*, supra n 23 at 43; P Lee et al., supra n 25; Carpenter, supra n 21 at 24; Ghattas, *Protecting Intersex People in Europe: A Toolkit for Law and Policymakers*, OII Europe and ILGA-Europe, 2019 at 9, available at: oiiurope.org/protecting-intersex-people-in-europe-a-toolkit-for-law-and-policy-makers [last accessed 25 May 2020].

³¹ See, for example, Human Rights Watch, ‘Caster Semenya Loses Appeal for Equal Treatment. Athletics Federation Rules Exclude Women with Intersex Variations from Competition’ 1 May 2019, available at: hrw.org/news/2019/05/01/caster-semenya-loses-appeal-equal-treatment [last accessed 25 May 2020].

³² See, for example, Villiers, supra n 4.

³³ *The World Medical Association*, supra note 4.

scientific flaws.³⁴ Thus, the view that women athletes' testosterone levels must be medically 'managed' and regulated is increasingly contested, even within the medical and biological community.

3. BOUNDARY DRAWING BETWEEN SCIENCE AND NON-SCIENCE

The significance of the notion of *science* for deciding normative issues related to human rights in the *Dutee Chand* and the *Caster Semenya* case is demonstrated by the high number of expert witnesses involved in the two cases. The proceedings in the *Dutee Chand* case registered in total nine expert witnesses, while in the second case Semenya and ASA presented together 23 experts and the IAAF seven experts.³⁵

International lawyers have applauded the inclusion of expert witnesses in international adjudication for ensuring 'quality, transparency, and legitimacy'³⁶ and as generating credibility.³⁷ However, Pape revealed in her analysis of the *Dutee Chand* case that the panel did not treat all experts as reliable sources to which it accorded authority.³⁸ Instead, by indirectly drawing a boundary between 'science' and 'non-science', the CAS panel systematically assigned more authority and credibility to the IAAF expert witnesses than to the experts supporting Chand.³⁹ For example, the Interim Award refers to statements provided by Chand's expert witnesses as 'mere' or 'unproven' hypotheses and 'unsupported speculation'⁴⁰. It further questions the authority of their knowledge, describing an article by expert witness Katrina Karkazis as 'a sociological opinion, which does not equate to scientific and clinical knowledge and evidence'⁴¹. By assigning IAAF experts more credibility than Chand's experts, the Interim Award not only drew a boundary between 'science' vs. 'non-science' but also reflects other cleavages, such as hard sciences vs. soft sciences and objectivity vs. subjectivity. These binaries

³⁴ Science Media Centre, 'Expert Reaction to Ruling on Caster Semenya Appeal Regarding Athletes with Differences of Sex Development and Testosterone Levels', 5 January 2019, available at: sciencemediacentre.org/expert-reaction-to-ruling-on-caster-semenya-appeal-regarding-athletes-with-differences-of-sex-development-and-testosterone-levels/ [last accessed 25 May 2020].

³⁵ *Dutee Chand*, supra n 9; *Mokgadi Caster Semenya*, supra n 2.

³⁶ Pauwelyn, 'The Use of Experts in WTO Dispute Settlement' (2002) 51 *The International and Comparative Law Quarterly* 325 at 362.

³⁷ Bonneuil and Levidow, 'How Does the World Trade Organization Know? The Mobilization and Staging of Scientific Expertise in the GMO Trade Dispute' (2012) 42 *Social Studies of Science* 75.

³⁸ Pape, 'Gendering the Institutional Reproduction of Expertise And Sex Difference', (2017), presented at Annual Meeting of the American Sociological Association, Montreal.

³⁹ *Ibid.* at 12, 16–8.

⁴⁰ *Ibid.* at 15.

⁴¹ *Dutee Chand*, supra n 9 at para 463. The article to which this quote refers to is: Karkazis et al., 'Out of Bounds? A Critique of the New Policies on Hyperandrogenism in Elite Female Athletes' (2012) 12 *The American Journal of Bioethics* 3.

follow gendered assumptions with the first element carrying ‘male’ connotations and the second ‘female’ ones, and suggest that a clear separation of one side from the other is possible.

The battle about ‘true’ science continued in the *Caster Semenya* case. The majority of Semenya and AFA’s 23 experts had a background in hard sciences and explained that the evidence presented by the IAAF was flawed due to several methodological shortcomings. These included errors in calculations, low generalizability and replicability of results and biases (for example, caused by a conflict of interest).⁴² Yet, Semenya and AFA also put forward lawyers and bioethicists who demonstrated why the DSD Regulations are unethical and violate human rights. However, arguments addressing these ethical problems instead of ‘hard’ science were largely side lined in the CAS decision-making process. Moreover, the majority of the CAS arbitrators rejected the criticism by the claimants’ expert witnesses against the scientific evidence presented by the IAAF and seemed convinced by the scientific expertise put forward by the IAAF.

The high status of hard science in the decision-making of the CAS reflects general tendencies in legal circles. The assumption that experimentalist sciences can reveal absolute scientific ‘truth’ continues to prevail among lawyers. This is the case despite the fact that starting with Thomas Kuhn, social constructivists, including many feminists,⁴³ have shown that knowledge is constructed and often reflects power relations, including gender relations. For example, by stating that

scientific experts play a decidedly restrictive role: they help non-experts in the litigation, most importantly the adjudicators, to understand the structure and behavior of the ‘physical and natural world’ through the application of accepted scientific methods such as observation and experiment,⁴⁴

Alvarez shows his conviction that experimentalist research approaches can expose real truth. Presuming a strict division between objective facts and norms, the former belonging to experts and the latter to adjudicators, represents science as value free and a neutral device to resolve complex legal issues, such as the definition of sex and gender in sports. This corresponds to

⁴² *Mokgadi Caster Semenya*, supra n 2 at paras 116–138, 164, 169–176, 260, 264, 268.

⁴³ For example: Charlesworth and Chinkin, *The Boundaries of International Law: A Feminist Analysis* (2000) at 22; Collins, *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment* (2000); Haraway, ‘Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective’ (1988) 14 *Feminist Studies* 575; Harding, *The Science Question in Feminism* (1986).

⁴⁴ Alvarez, ‘The Search for Objectivity: The Use of Experts in Philip Morris v Uruguay’ (2018) 9 *Journal of International Dispute Settlement* 411 at 412. See also Leclerc, ‘Scientific Expertise and Judicial Decision Making: Comparative Insights’ in Ferrer Beltrán and Pozzolo (eds) *Law, Politics, and Morality: European Perspectives III* (2006) 15 at 15. Christophe Bonneuil and Les Levidow further argue that most lawyers assume the presence of ‘pre-existing’ and ‘objective’ science, which can be used as evidence for adjudication proceedings. See: Bonneuil and Levidow, supra n 37 at 79.

scholarly research, as Jasanoff has argued that modern societies expect that ‘sciences can deliver failsafe, and therefore just, legal outcomes’.⁴⁵ Littoz-Monnet similarly observed that the inclusion of experts in international decision-making processes concerning bioethics can help political actors to move their agendas forward by depoliticizing contentious issues.⁴⁶ Thus, by focusing on the ‘scientificity’ of the testosterone rules and the dispute between expert witnesses, the CAS panels could frame their decisions as ‘objective’, taken within the realm of science and outside of human rights politics. It followed the traditional view that legal decision-making *can* and *shall* reach objectivity, even though CLS scholars have long rejected the possibility of obtaining objectivity in law, since, in their eyes, any legal decision is a political one.⁴⁷

4. LAW’S AUTHORITY TO POLICE THE GENDER BINARY AND DEFINE DETERMINATE CATEGORIES

The guise of objectivity of the testosterone rules allowed the IAAF to postulate that specific biological markers, testosterone and chromosomes, can be used to draw a straightforward boundary between ‘normal women’⁴⁸ and ‘biologically male athletes with female gender identities’.⁴⁹ This fits the solution-oriented discipline of law, since the creation of binary categories, such as legal vs. illegal, victims vs. perpetrators and men vs. women, seems to be a foundational task of laws.⁵⁰ However, contrary to traditional legal approaches, CLS scholars have shown that law is indeterminate *per se* and argued that binary legal categories are never stable concepts, but always the outcome and reflection of continuous power struggles.⁵¹ By rejecting that there is one core element defining sex or gender and accepting that these are complex, relational and constructed concepts, the CAS would have given up the possibility of defining binary and static categories, such as male vs. female and normal vs.

⁴⁵ Jasanoff, 'Just Evidence: The Limits of Science in the Legal Process' (2006) 34 *The Journal of Law, Medicine & Ethics: A Journal of the American Society of Law, Medicine & Ethics* 328 at 328.

⁴⁶ Littoz-Monnet, 'Expert Knowledge as a Strategic Resource: International Bureaucrats and the Shaping of Bioethical Standards' (2017) 61 *International Studies Quarterly* 584.

⁴⁷ Bianchi, *International Law Theories* (2016) at 136.

⁴⁸ The Interim Award in the *Dutee Chand* case cites testimonies by IAAF witnesses making descriptions of ‘normal’ women as opposed to ‘hyperandrogenic women’. In addition, the CAS Award in the *Caster Semenya* case uses language and arguments that describe athletes like Semenya as non-female or male. For example, the Award claims that the case involved ‘incompatible, competing, rights’, such as the right to be free from discrimination (e.g. Semenya’s right) versus the right of female athletes to compete against other female athletes. See: *Dutee Chand*, supra n 9 at paras 189, 194, 201, 206, 214, 315, 316, 461, 468, 476, 526; *Mokgadi Caster Semenya* supra n 2 at para 460.

⁴⁹ *Mokgadi Caster Semenya*, supra n 2 at para 285.

⁵⁰ Rasulov, 'International Law and the Poststructuralist Challenge' (2006) 19 *Leiden Journal of International Law* 799 at 800–1, 810.

⁵¹ Bianchi, supra n 47 at 146; Koskenniemi, *From Apology to Utopia: The Structure of International Legal Argument* (2006).

hyperandrogenic/DSD. This would have resulted in the CAS and international sports federations losing their power to define sex and gender for sporting purposes, an idea that other legal bodies have also found too threatening for a social and sporting system based on the gender binary.⁵² Upholding the DSD Regulations, on the contrary, allowed the CAS to retain its authority to ‘police’⁵³ the sex/gender binary in the practice of sport.

Even though the CAS arbitrators in the two cases recognized that ‘sex in humans is not simply binary’,⁵⁴ they still assumed the ‘policing’ of the binary as the legitimate function of international sporting associations. According to Derrida’s concept of *différance*, both elements in dichotomous legal concepts, such as men vs. women, only gain meaning by constructing themselves to the exclusion of the other and only exist if the other half of the pair does as well.⁵⁵ This dialectical nature contains a hierarchy between the two elements, where one is considered as the ‘deviation’ (women) of the other, the ‘norm’ (men). The socially constructed nature and historical contingency of binary sex categories is shown in the history of sex verification procedures, which also demonstrates ‘how the co-option of science in sports (however it is resisted by scientists and human rights campaigners) can act to essentialise social categories’.⁵⁶ Whether someone could compete in women’s sports events in international competitions was determined by the appearance of genitals and secondary sex characteristics in the 1960s. In the 1970s and 1980s, chromosomes were determinative for establishing a person’s ‘sports gender’ and testosterone levels are used for this purpose in this millennium.⁵⁷ Any method to ‘measure’ sex has eventually been rejected and replaced by another one, only for this new method to be contested again. This confirms also the arguments by queer feminists, such as Butler, who have stressed since the 1990s that in addition to gender, whose social construction second wave feminists already recognized, also sex is socially constructed. Body parts have no pre-discursive meanings, but they become gendered and meaningful through human action.⁵⁸ Women who are too fast, too athletic or too ‘manly’ challenge the gender binary and threaten the male ‘norm’, which assumes natural superiority of men in sports. The testosterone rules are thus a regulatory effort to put in place the naturalized binary of masculine/muscular/fast men versus feminine/gracile/slow women.

⁵² Only very few countries have given up the power to define conditions under which a person can change the legal gender. See supra n 26.

⁵³ The CAS panel itself uses the term ‘police’ to describe the process of drawing a boundary between female and male athletes. See: *Dutee Chand*, supra n 9 at para 532.

⁵⁴ *Dutee Chand*, supra n 9 at para 35(e). See also *Mokgadi Caster Semenya*, supra n 2 at para 457.

⁵⁵ Sullivan, *A Critical Introduction to Queer Theory* (2003) at 39–40.

⁵⁶ Heggie, supra n 17 at 158.

⁵⁷ *Ibid.*

⁵⁸ Butler, *Gender Trouble: Feminism and the Subversion of Identity* (2015) at 9.

Indeed, sports remains one of the social domains where the division of people according to their gender, starting at a young age, has become completely naturalized. Apart from rare exceptions, such as equestrian,⁵⁹ women and men are generally separated in sports competitions, even at the amateur level, in youth competitions, and in physical education classes. If mixed-sport events exist in international tournaments, such as in tennis and figure skating, they often reproduce heteronormative and sexist norms, by demanding gendered dress codes and/or including gendered roles (e.g. men leading in pair figure skating).⁶⁰ Even though the binary gender division in sports was not challenged by Chand and Semenya, the reasons for dividing women and men in sports received attention in the CAS proceedings and related media reports.⁶¹ As there is currently an average performance difference of about 10% between athletes competing in women and men's events,⁶² measured in speed and strength, women would likely drop out from the group of winners in certain disciplines if all competitions were gender-mixed. While women's absence in sports competitions would certainly not serve the purpose of gender equality, the discourse surrounding the CAS cases started a necessary process of denaturalizing and questioning the binary gender division in sports.⁶³ Even if certain sports at the competitive level remain gender segregated for the purpose of ensuring women's access to elite competitions, the gender division in children's sports, amateur competitions and disciplines that are more about technical expertise than speed or strength (e.g. diving, shooting, bobsleigh) could be carefully reconsidered. Empirical studies on how gender-divided and gender-mixed sports at different levels affect gender relations should inform any policy-making in this regard, so as to

⁵⁹ International Olympic Committee, 'Equestrian / Dressage - Summer Olympic Sport', 22 June 2017, available at: olympic.org/equestrian/-/dressage [last accessed 25 May 2020].

⁶⁰ According to the rules by the International Skating Union, women ice dancers are still required to wear a skirt in free dance competitions, while men must wear trousers. Only in 2019, did the Women's Tennis Association changed its clothing policy, which now allows women to wear leggings and compression shorts *without* skirts. This was the result of the controversy surrounding the ban of Serena William's 'catsuit' at the French Open in 2018. See: International Skating Union, 'Special Regulations & Technical Rules Single & Pair Skating and Ice Dancing 2018' at Rule 501(1); International Skating Union, 'Communication No.2239. Ice Dance. Requirements for Technical Rules Season 2019/20' at 9; 'Women's Tennis Association 2019 Official Rulebook' at section IV(C)(2)(c).

⁶¹ For example, Gabby Hinsliff argues that the strict binary division in sports is the 'basic problem'. See: Gaby Hinsliff, 'Is Fair Play in Running More Important than Fairness to Caster Semenya as a Human?' *The Guardian*, 3 May 2019, available at: theguardian.com/commentisfree/2019/may/03/caster-semenya-fair-play-running-athletics-south-african-ethics-sport-science [last accessed 25 May 2020]. See also Dutee Chand supra note 9 at paras 35, 129, 527; Mokgadi Caster Semenya, supra n 2 at para 287.

⁶² Thibault et al., 'Women and Men in Sport Performance: The Gender Gap Has Not Evolved since 1983' (2010) 9 *Journal of Sports Science & Medicine* 214. As the aforementioned article shows, scholars disagree on the reasons for the 10% performance difference and whether the difference is also (partly) socially created through fewer opportunities for women and girls in sports.

⁶³ Some scholars have argued that the gender division in sports is a reason for, not an effect of, women's lower athletic performance. For example, Laura Wackwitz asserts that the superiority of men over women in sports is a myth, which keeps women in a marginalized place in sports. See: Wackwitz, 'Verifying the Myth: Olympic Sex Testing and the Category "Woman"' (2003) 26 *Womens Studies International Forum* 553 at 555.

guarantee that breaking with the blanket gender division in sports does not recreate another barrier for women and girls.⁶⁴

The ‘policing’ of the gender binary in sports through the DSD Regulations means that athletes like Semenya must medically reduce their endogenous testosterone levels, for instance through contraceptives, if they want to continue competing in the women’s category. While there is usually no medical reason for reducing the athletes’ testosterone production, the IAAF erroneously claimed that ‘gonadectomy or hormonal treatment to reduce testosterone levels are the recognised standard of care for individuals with 46 XY DSD’⁶⁵. By additionally arguing that ‘[t]hese medications are gender-affirming’⁶⁶, the IAAF reproduced Money’s logic claiming that medical body alterations are necessary for ‘affirming’ a stable gender identity. This goes contrary to the demands by intersex and trans persons to recognise that gender identities and gender roles are not determined by the appearance of genitals and that, contrary to any assumed binary nature, human sex and gender exist in a variety of forms. Since the 1990s, intersex rights activists have demanded the cessation and legal prohibition of harmful medical practices that aim at aligning the bodies of intersex children to normative understandings of how sex characteristics should look.⁶⁷ These harmful medical practices are mostly undertaken for ‘cosmetic’ purposes without serving any medical necessity and often include irreversible genital surgeries. They are increasingly recognized as human rights violations by international authoritative bodies, such as the Committee on the Rights of the Child and the one against Torture.⁶⁸

⁶⁴ For example, empirical studies show different results for the effects of gender-mixed sports education on girls’ participation and performance in sports. See for example: Mutz and Burrmann, ‘Sind Mädchen Im Koedukativen Sportunterricht Systematisch Benachteiligt? Neue Befunde Zu Einer Alten Debatte’ (2014) 44 (3) Sportwissenschaft 171; Kastrup and Kleindienst-Cachay, “‘Reflective Co-Education” or Male Oriented Physical Education? Teachers’ Views about Activities in Co-Educational PE Classes at German Secondary Schools’ (2016) 21(7) Sport, Education and Society 963; Diketmüller, ‘Geschlechtersensibel Mono- Und Koedukativ Unterrichten’ (2009) Handbuch Sportdidaktik 245.

⁶⁵ Mokgadi Caster Semenya, supra n 2 at para 310. In a press release issued after the announcement of the CAS’ decision, the IAAF further said that ‘using a contraceptive pill (or other means) is the recognised standard of care for 46XY DSD athletes with a female gender identity’. See: IAAF, ‘Press Release. IAAF Letter to the World Medical Association’, 5 July 2019 available at: iaaf.org/news/press-release/iaaf-letter-wma [last accessed 25 May 2020].

⁶⁶ Ibid.

⁶⁷ Third International Intersex Forum, *Malta Declaration* (2013), available at: oieurope.org/malta-declaration/ [last accessed 25 May 2020].

⁶⁸ See, for example, Committee on the Rights of the Child, Concluding Observation on Switzerland, 26 February 2015, CRC/C/CHE/CO/2-4 at paras 42(b), 43(b); Committee on the Rights of the Child, Concluding Observations on the Second Periodic Report of South Africa, 27 October 2016, CRC/C/ZAF/CO/2 at paras 39, 40(d); CAT Committee, Concluding Observation on Germany, 12 December 2011, CAT/C/DEU/CO/5 at para 20; Committee against Torture, Concluding Observations on the Seventh Periodic Report of France, 10 June 2016, CAT/C/FRA/CO/7 at paras 34, 35; European Parliament Resolution on the Rights of Intersex People [2018] 2018/2878(RSP).

As pointed out by mandate holders of three UN Special Procedures on health, torture and discrimination against women, the forced hormone treatment prescribed by the DSD Regulations can have adverse side-effects affecting the athletes' physical and mental health. They also described it as 'particularly troubling given the long history of subjecting women with differences of sex development to abusive exhibition and medical treatments'⁶⁹. In addition to hormone therapies that lower an athlete's testosterone level, reports have shown that the testosterone rules can have other indirect effects on women's bodies. For example, a study from 2014 reveals that four women athletes from the Global South undertook gonadectomies and partial clitoridectomies in order to lower their natural testosterone production and the risk of being considered as 'suspicious' due to an enlarged clitoris exposed during urine doping tests.⁷⁰ Thus, the CAS decision that the IAAF may 'police' the gender/sex binary by forcing women to take contraceptives for making their bodies conform to normative understandings of female sex/gender can be seen as a continuation of medically unnecessary physical violence subjected on women with intersex variations.⁷¹

5. GENDER AND RACIAL BIASES AS EXTRA-LEGAL CONSIDERATIONS

According to Bianchi, traditional legal approaches aim to exclude all 'extra-legal considerations' (moral, political or social) from legal analysis.⁷² The legality of a rule, such as the testosterone rules, is established by evaluating whether it adheres to the logic and pre-existing rules of the system in which it is constructed. Any 'external' barometers, such as political and moral concerns on gender equality, are to be dismissed.⁷³ The panels' reasoning in the *Dutee Chand* case and the *Caster Semenya* case reflects this approach, since it assesses the conformity of the testosterone rules with the principle of non-discrimination by applying the

⁶⁹ Mandates of the Special Rapporteur on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health; the Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment; and the Working Group on the Issue of Discrimination against Women in Law and in Practice, 18 September 2018, Reference: OL_OTH_62/2018 at 6.

⁷⁰ Rebecca Jordan-Young, Peter H Sönksen and Katrina Karkazis, 'Sex, Health, and Athletes' (2014) 348 *British Medical Journal* g2926; Karkazis and Jordan-Young, supra n 18 at 4.

⁷¹ This was also supported by Semenya's expert witness James Garland who argued that the DSD Regulations reflect 'a disturbing history of subjecting persons born with variations of sex characteristics to degrading, harmful and medically discriminatory treatment': see: *Mokgadi Caster Semenya*, supra n 2 at para 221.

⁷² Bianchi, supra n 47 at 21.

⁷³ Ibid.

standards that the rule itself proposes.⁷⁴ It focuses on the question of whether the testosterone rules live up to their own logic and are based on scientific evidence proving the causal relationship between endogenous testosterone and athletic performance in women. By doing so, it left out an analysis of the rule's gendered and racialized effects. Indeed, Vieweg argues that the CAS has shown a reluctance to consider whether the content of rules by international sporting federations complies with the principle of fairness. Instead, it focuses on reviewing whether administrative and procedural aspects of rules are fair.⁷⁵ In this way, it can avoid putting forward a definition of the substance of 'fairness' in sports, which could be seen as contrary to the principle of autonomy and self-governance of international sporting federations.⁷⁶

In line with the CAS' logic that it 'must adjudicate the disputed legal issues on the basis of the applicable legal tests',⁷⁷ it could have considered the testosterone rules' gendered and racial biases when it tried to assess whether they are 'necessary' and 'proportionate'. The panels in both relevant cases did accept that the testosterone rules 'discriminate against women and discriminate based on a natural physical trait'⁷⁸. However, in the *Dutee Chand* case, the arbitrators argued that they are unable to determine whether this discrimination is justified and thus, proportionate, since it would need scientific clarity on the comparative advantage that women athletes gain through endogenous testosterone above 10 nmol/L.⁷⁹ The Award in the *Caster Semenya* case clarifies that the majority of the panel, thus two of the three arbitrators, considered the DSD Regulations as *necessary*. They were convinced by the evidence that testosterone levels above five nmol/L in women with XY chromosomes provides a significant athletic advantage.⁸⁰ Based on this evidence, and considering that the DSD Regulations do not require any surgical interventions, but 'only' foresee 'conventional oral contraceptives' to lower the athletes' testosterone levels, the majority of the panel found the Regulations *proportionate*.⁸¹

⁷⁴ By indicating that 'it is not acting as a policy maker' but that 'its function is a purely judicial one', the CAS panel tried to distance itself from politics surrounding the *Caster Semenya* Award. See: *Mokgadi Caster Semenya*, supra n 2 at para 469.

⁷⁵ Vieweg, 'Lex Sportiva and the Fairness Principle' (2014) 10 *International Sports Law Review Pandektis* 382.

⁷⁶ *Ibid.* at 387, 390-1.

⁷⁷ Court of Arbitration for Sport, 'Executive Summary. Caster Semenya, Athletics South Africa, IAAF', 1 May 2019 at para 13.

⁷⁸ *Dutee Chand*, supra n 9 at para 500. See also *Mokgadi Caster Semenya*, supra n 2 at para 547(d). The panels' approach of arguing that the testosterone rules are *prima facie* discriminatory, but may be justified, differs from the one applied by most international human rights bodies. For example, the European Court of Human Rights and the UN Human Rights Committee suppose that discrimination is *per se* a human rights violation and can never be justified. Thus, what the CAS called 'discrimination', most international human rights bodies would call 'difference of treatment'. See for example: European Union Agency for Fundamental Rights and Council of Europe (eds), *Handbook on European Non-Discrimination Law* (2018).

⁷⁹ *Dutee Chand*, supra n 9 at paras 500-38.

⁸⁰ *Mokgadi Caster Semenya*, supra n 2 at para 580.

⁸¹ Court of Arbitration for Sport, supra n 77 at para 25.

Nevertheless, the arbitrators noted that practical aspects related to the rule's implementation can potentially affect the rule's proportionality in the future, which would demand a reconsideration of the rule's validity. These practical aspects include difficulties to comply with the rule and the paucity of evidence of performance-enhancing effects of endogenous testosterone concerning 1500m and one-mile events.⁸²

The key question determining the arbitrators' decision in both cases was whether endogenous testosterone above the restricted limits provides such a significant advantage that banning the women concerned is justified for the purpose of 'fairness'. Focusing on scientific evidence for the athletic advantage created by endogenous testosterone equates 'legal' with 'scientific' and frames the proportionality test as only concerning science, without considering the gendered and racialized impacts of the rule. It omits any discussion of the claim that the rules are not only discriminatory against women with testosterone levels above the set levels and XY chromosomes, therefore women with intersex variations, but also against women in general, since there is no maximum testosterone limit for male athletes.⁸³ The lack of any sex verification procedure for men postulates that men can never be too 'masculine' or have too much testosterone, while sportswomen may be scrutinized for being too 'manly'. The fact that the DSD Regulations concern only women shows that testosterone continues to be considered as 'the male sex hormone', which 'real' women are not allowed to possess.⁸⁴ Similarly, reducing the scope of the DSD Regulations to women with XY chromosomes was arguably intended to give the impression that not 'real' women are affected because, if testosterone is the issue, then why should chromosomes or reproductive organs matter?

A gender bias is also visible in the assessment of the proportionality of the DSD Regulations, since the majority of the panel in the *Caster Semenya* case stressed that the rule is proportionate as it does not require any surgical alterations for reducing the testosterone, but 'conventional oral contraceptives'.⁸⁵ Semenya stressed that during the time that she was on hormone treatment, she experienced several side-effects, including weight gain, constant nausea and impaired mental focus, which had influenced her athletic performance.⁸⁶ While taking this into account,⁸⁷ the majority of the panel argued that potential side-effects of prescribed

⁸² *Mokgadi Caster Semenya*, supra n 2 at paras 621, 623.

⁸³ *Dutee Chand*, supra n 9 at paras 112–4.

⁸⁴ Karkazis and Jordan-Young, supra n 18. The assumption that testosterone is a male property is also reflected in the arguments brought forward by the IAAF, stating that '[t]he only factor that is available only to men is exposure to adult male testosterone levels' (emphasis added). See: *Mokgadi Caster Semenya*, supra n 2 at para 563.

⁸⁵ Court of Arbitration for Sport, supra n 77 at para 25.

⁸⁶ *Mokgadi Caster Semenya*, supra n 2 at paras 56, 79.

⁸⁷ *Ibid.* at para 595.

medication ‘are not different in nature to those experienced by the many thousands, if not millions, of other XX women, who take oral contraceptives’⁸⁸. This shows how normalized the control of women’s hormone production despite regular side-effects of contraceptives is, whereas interfering in men’s natural hormone production is rather unusual.⁸⁹ In this sense, the testosterone rules are part of broader social dynamics of disciplining women’s bodies and scrutinizing them according to (white) standards of femininity, while men’s bodies receive much less public attention.

In addition to the claimants’ argument that the testosterone rules are discriminatory against women in general and women with intersex variations in particular, their implementation raises other issues of intersectional discrimination. As highlighted by the claimants, the testosterone rules are based on a ‘subjective assessment of [the athletes’] phenotype and their virilisation characteristics’⁹⁰, which is likely influenced by racial and gender stereotypes. For example, the rules’ suspicion-based model entails that not all women athletes are subjected to testosterone tests. Tests are only carried out when there is ‘reasonable ground for believing that a case of hyperandrogenism may exist’⁹¹, which is determined by the IAAF Medical Manager.⁹² In practice, this means that athletes with extraordinary athletic performances and who do not conform to normatively feminine presentations risk being called into question and subjected to testosterone tests. This has also been described as indirectly targeting and scrutinizing black and brown women, whose bodies and expressions are even more likely to be perceived by the Western gaze as deviating from stereotypical Western notions of (white) femininity.⁹³

Indeed, in an article published in 2018, Karkazis and Jordan-Young call attention to sport authorities indicating that exclusively women from the Global South, and black and brown women have been so far subjected to testosterone tests.⁹⁴ The scholars further show how the IAAF’s narrative that the rule ‘helps’ women with ‘dangerous’ intersex variations from the Global South to access necessary medical treatment, which is only available in the West, is

⁸⁸ *Ibid.* at para 598.

⁸⁹ Hannah Harris Green explains how ‘we’ve been trained to see reproductive technologies as a natural extension of women’s biology’, while the development of contraceptives for men has received much less importance. See: [Harris Green, ‘The Future of Birth Control Means Facing Up to Its Sexist Past. The “Male Pill” Is within Reach. Why Does the Burden of Contraception Still Fall on Women?’ *How We Get To Next*, 12 September 2017, available at: \[_howwegotnext.com/the-future-of-birth-control-means-facing-up-to-its-sexist-past-848c139a57c3_\]\(https://www.howwegotnext.com/the-future-of-birth-control-means-facing-up-to-its-sexist-past-848c139a57c3\) \[last accessed 25 May 2020\].](https://www.howwegotnext.com/the-future-of-birth-control-means-facing-up-to-its-sexist-past-848c139a57c3)

⁹⁰ *Mokgadi Caster Semenya*, supra n 2 at para 51.

⁹¹ IAAF, supra n 19 at para 3.3.

⁹² *Ibid.*

⁹³ Karkazis and Jordan-Young, supra n 18 at 5. This was also mentioned by Semenya’s expert witness Anand Grover. See: *Mokgadi Caster Semenya*, supra n 2 at para 219.

⁹⁴ Karkazis and Jordan-Young, supra n 18 at 5.

based on hidden post-colonial ideologies.⁹⁵ While in both cases the CAS panels did not address the issue of the suspicion-based model, the IAAF rejected the claims of racial bias in 2015. It argued that the Regulations ‘are not used to determine which female athletes should be investigated’⁹⁶, but only set out the procedures that follow the decision to conduct investigations.⁹⁷ This argument is flawed for two reasons, the first being that the Hyperandrogenism Rule and the DSD Regulations do establish the circumstances under which the IAAF Medical Manager has ‘reasonable ground’ to start an investigation.⁹⁸ Secondly, the concept of ‘indirect discrimination’ and ‘disparate impact’ in anti-discrimination laws hold that even if a rule does not directly discriminate, it can still be held discriminatory if it disproportionately affects certain groups.⁹⁹ In 2019, the IAAF stressed the fact that the Medical Manager must act in *good faith* and on ‘reasonable grounds based on information derived from reliable sources’¹⁰⁰ when starting investigations, again without specifying what the latter exactly means.

In addition to the suspicion-test model, the claimants also criticised that ‘there is no objective and precise means for measuring *sensitivity* to androgen’¹⁰¹. This means that doctors rely on their subjective interpretations when assessing whether a woman with endogenous testosterone above the threshold has a ‘material androgenizing effect’. As stated in the Hyperandrogenism Rule, this so-called ‘virilisation test’ includes visually examining the degree of ‘masculinisation’ of certain body characteristics, such as the deepness of their voice, body hair, genital characteristics (i.e. size of clitoris) and the size of their breasts.¹⁰² Contrary to what the IAAF and its experts claimed, the standards for this assessment are influenced by norms on culturally appropriate gender expressions and bodies.¹⁰³

⁹⁵ *Ibid.*

⁹⁶ *Dutee Chand*, supra n 9 at para 248.c.

⁹⁷ *Ibid.*

⁹⁸ IAAF, supra n 7 at para 2.2; IAAF, supra n 19 at para 3.3.

⁹⁹ Tourkochoriti, “Disparate Impact” and “Indirect Discrimination”: Assessing Responses to Systemic Discrimination in the U.S. and the E.U’ (2015) *European Journal of Human Rights* 297. ‘Indirect discrimination’ as an effects-based concept has been endorsed by several international human rights instruments and in the jurisprudence of international legal bodies, such as: Article 1 Convention on the Elimination of All Forms of Discrimination against Women 1979, 1249 UNTS 13; Article 1 International Convention on the Elimination of All Forms of Racial Discrimination 1966, 660 UNTS 195; *Rupert Althammer et al. v Austria* (8/8/2003), *Views*, CCPR/C/78/D/998/2001 ; *D.H. and Others v the Czech Republic*, Application No 57325/00, 13 November 2007 . See also Tobler, Christa *Limits and Potential of the Concept of Indirect Discrimination*, European Commission (2008) at 11-16, available at ec.europa.eu/social/BlobServlet?docId=1663&langId=en [last accessed 27 Nov 2019].

¹⁰⁰ *Mokgadi Caster Semenya*, supra n 2 at para 309.

¹⁰¹ *Ibid.* at para 262. See also Sonksen in Science Media Centre, supra n 34.

¹⁰² IAAF, supra n 7 at 20 in Appendix 2.

¹⁰³ Karkazis et al., supra n 41.

Another gender bias reflected in the testosterone rules and not taken into account in the proportionality test conducted by the two CAS panels concerns the asserted rationale of the rule, namely to create a ‘level playing field’¹⁰⁴. The IAAF argues that it is necessary to regulate the endogenous testosterone production in women in order to avoid ‘having unfair competition conditions that deny athletes a fair opportunity to succeed’¹⁰⁵ and for ‘protecting the “protected class” of female athletes’¹⁰⁶. The claimants in the two cases and their expert witnesses, on the other hand, contested the possibility of ever establishing a level playing field in sports and the relevance of regulating endogenous testosterone for this purpose.¹⁰⁷ They argued that even if endogenous testosterone would confer an athletic advantage to women athletes – an argument that still lacks consensus among scientists – there is no reason as to why it should be treated categorically differently from other factors creating a competitive advantage. Other genetic characteristics, such as height, good sight, lung capacity, and socio-economic factors, like coming from a wealthier country or family and therefore having access to better nutrition and coaches, can equally create a comparative advantage.¹⁰⁸

For example, a newspaper calculated that India spent about one third or one fourth of what the UK spent on preparations for the Olympic Games in Rio de Janeiro in 2016.¹⁰⁹ Given that India has 22-times as many people aged 15-35 years as the UK does, the *per-capita* funding difference between the two countries might explain why the UK won 67 medals in this Olympic Games, compared to India’s two.¹¹⁰ Such socio-economic differences are usually not taken into account in determining the eligibility of athletes to participate in international sporting events. As further pointed out by Camporesi’s and Semenya’s expert witness Alun Williams, athletes with genetic conditions that are advantageous to sports but unrelated to sex characteristics are not excluded from international sports competitions. Such conditions include primary polycythemia, which can prove beneficial for long-distance sports due to an increase in red

¹⁰⁴ Court of Arbitration for Sport, supra n 77 at para 10; IAAF, supra n 18 at para 1.1.a; *Dutee Chand*, supra n 9 at paras 288, 292.

¹⁰⁵ IAAF, supra n 18 at para 1.1.a.i.

¹⁰⁶ Court of Arbitration for Sport, supra n 77 at para 1. Note that the IAAF and the CAS accept women as necessary ‘protected class’, which includes paternalistic connotations. For example: IAAF, ‘Eligibility Regulations for Female Classification (Athletes with Differences of Sexual Development)’, Explanatory Notes/Q&A’ 7; *Dutee Chand*, supra n 9 at para 515; *Mokgadi Caster Semenya*, supra n 2 at para 456.

¹⁰⁷ *Dutee Chand*, supra n 9 at paras 232, 263, 353; *Mokgadi Caster Semenya*, supra n 2 at paras 144–147.

¹⁰⁸ *Dutee Chand*, supra n 9 at paras 263, 353.

¹⁰⁹ ‘Funding Equals Medals? India Spent a Third of UK’s Olympic Expenditure’, *Hindustantimes*, 22 August 2016, available at: hindustantimes.com/olympics/funding-equals-medals-india-spent-a-third-of-uk-s-olympic-expenditure/story-o5H2dhRcJ7F3SHEoR8T8lN.html [last accessed 25 May 2020].

¹¹⁰ *Ibid.*

blood cells.¹¹¹ Similarly, Semenya and newspapers have drawn attention to Michel Phelps' genetic athletic advantages, such as a vast wingspan and low production of lactic acid, as examples of unregulated genetic advantages.¹¹² Camporesi states that singling out testosterone as the only physical factor that could potentially create a comparative advantage is 'based entirely on heteronormative standards for how a female athlete should look'.¹¹³ Indeed, IAAF's expert witness Stéphane Bermon argued that 'it is the source of the advantage (*viz.* testes producing male levels of testosterone) that makes the advantage unfair, rather than the degree of advantage'.¹¹⁴ This revealed that the problem for the IAAF is not the benefits generated through testosterone, but that certain women transgress gender norms by producing testosterone through so-called 'male' reproductive organs. Thus, leaving out an analysis of the testosterone rules' various biases for the proportionality test by focusing solely on the scientific veracity of the rules hid intersecting structures of intersexphobia, sexism, racism, classicism, and eurocentrism that caused the construction of Chand and Semenya as 'hyperandrogenic women'.¹¹⁵

6. AN UNEQUAL INTERNATIONAL SPORTING STRUCTURE

Arbitrators usually enjoy a relatively broad autonomy to decide which information to take into account for their decisions. Panel members in the *Dutee Chand* and *Caster Semenya* case had therefore some personal leeway in approaching the proportionality test, even though they stressed in the latter case that they needed to base their decision on the evidence and submissions presented by the parties.¹¹⁶ Following the legacy of the CLS movement to analyse the influence of law's structure on unequal power relations, this section explores how structural factors of international sports law shaped the arbitrators' focus on the physical effects of endogenous testosterone, instead of human rights considerations.¹¹⁷ It will particularly discuss the systemic lack of knowledge on human rights and gender justice among CAS arbitrators, and the history

¹¹¹ Camporesi, 'A Question of "Fairness": Why Ethics Should Factor in the Court of Arbitration for Sport's Decision on the IAAF Hyperandrogenism Regulations' [2018] *British Journal of Sports Medicine* *bjsports*, 1; *Mokgadi Caster Semenya*, *supra* n 2 at paras 46, 147.

¹¹² For example: Monica Hesse, 'We Celebrated Michael Phelps's Genetic Differences. Why Punish Caster Semenya for Hers?' *Washington Post*, 2 May 2019; *Mokgadi Caster Semenya*, *supra* n 2 at para 52.

¹¹³ Camporesi, *supra* n 112 at 1.

¹¹⁴ *Mokgadi Caster Semenya*, *supra* n 2 at para 326.

¹¹⁵ Karkazis and Jordan-Young have argued that the testosterone rules were developed within a 'matrix of domination' that 'distributes power hierarchically along axes of race, sex/gender, and geopolitical regions'. See: Karkazis and Jordan-Young, *supra* n 18 at 9.

¹¹⁶ Court of Arbitration for Sport, *supra* n 77 at para 13.

¹¹⁷ Apart from issues of gender and racial discrimination, the testosterone rules interfere also in other human rights, including the right to health, autonomy (i.e. informed consent, confidentiality issues) and bodily integrity.

of institutionalizing gendered and partly racialized body norms through international sporting regulations.¹¹⁸

The focus on scientific evidence in two CAS cases concerning the testosterone rules relates to the fact that many CAS disputes concern doping, where sufficient scientific evidence, in the form of doping tests, is crucial for determining the validity of doping bans.¹¹⁹ The *Dutee Chand* and *Caster Semenya* case, however, were not simply about evaluating whether the tests carried out were in line with scientific and procedural standards. They were more about asking whether carrying out testosterone tests for the purpose of ‘sex testing’ is discriminatory *per se*. The disputes therefore ultimately concerned human rights, which were considered until recently as conceptually different from sports law and with which CAS arbitrators have limited experience.¹²⁰

The introductory quote to this article by Pao Gasol stipulates that the field of sports often seems to be immune from moral and formal considerations of (gender) equality. Including human rights considerations in sports is a development mainly pushed for by human rights communities, such as the several human rights bodies that have pronounced themselves on the DSD Regulations. Mentioned previously, in September 2018, the UN Special Rapporteurs on health and torture and the UN Working Group on discrimination against women urged the IAAF jointly to withdraw the DSD Regulations, as they ‘appear to contravene international human rights norms and standards’¹²¹. In addition, soon after the hearing in the *Caster Semenya* case and shortly before the anticipated date of the Award’s release, the UN Human Rights Council passed a resolution on the elimination of discrimination against women and girls in sport. The resolution holds explicitly that the DSD Regulations ‘are not compatible with international human rights norms and standards’¹²². Given the fact that the resolution was the first one ever

¹¹⁸ Even though highly relevant to the subject at hand, this paper does not discuss the question of why and to which effects international sports law is regulated by private arbitration instead of public judicial systems (domestic or international). Using a dispute settlement model similar to the one for investment law, rather than public interest issues, raises concerns with regards to structural power imbalances in disputes concerning the rights of individuals, such as those of athletes.

¹¹⁹ *Alexander Legkov v International Olympic Committee*, CAS 2017/A/5379, Arbitral Award, 1 February 2018.

¹²⁰ The *Pistorius case (2008)* was another famous CAS case concerning the principle of non-discrimination. See: *Pistorius v IAAF*, CAS 2008/A/1480, Award, 16 May 2008. The interrelation between human rights and sports law is increasingly recognized. See for example: Schwab, ‘Sport’s Human Rights Requirements: An Opportunity and Challenge for Sports Lawyers as Well as Sports Governing Bodies’, *LawInSport*: 15 March 2018, available at: lawinsport.com/topics/features/item/sport-s-human-rights-requirements-an-opportunity-and-challenge-for-sports-lawyers-as-well-as-sports-governing-bodies [last accessed 25 May 2020]; World Players Association, Universal Declaration of Player Rights, 14 December 2017; *Affaire Mutu et Pechstein c. Suisse*, Requête nos 40575/10 et 67474/10, Arrêt (au principal et satisfaction équitable), 2 October 2018.

¹²¹ Mandates of the Special Rapporteur, supra n 69 at 1.

¹²² UNHRC Resolution, A/HRC/40/L.10/Rev.1. Elimination of Discrimination against Women and Girls in Sport, 20 March 2019 at Preamble.

addressing specifically the situation of persons with intersex variations in general and women with intersex variations in particular, the international human rights community took a strong stance against the current testosterone rule.

The disconnection between international human rights norms and sports law is also reflected in the background of CAS arbitrators, who have hardly any experience with human rights law. Some CAS arbitrators are trained in sports law, but most come from the field of commercial law,¹²³ as partly also reflected in the composition of the panels in the two cases concerning the testosterone rules.¹²⁴ Indeed, the former UN Special Representative for Business and Human Rights, John Ruggie, has called attention to the fact that CAS arbitrators ‘generally lack human rights expertise’,¹²⁵ which is a phenomenon that also exists in other fields of arbitration, such as investment arbitration.¹²⁶ Arbitrators’ lack of knowledge of human rights diminishes one of the often-mentioned advantages of arbitration over state-led judicial processes, namely that parties to a dispute can *choose* the arbitrators for each specific case. Due to the free choice of arbitrators, they are expected to be more knowledgeable on the ‘specific nature’¹²⁷ of sport and the concrete issue at hand.¹²⁸ In addition to a lack of human rights-related expertise, it is worth noting that the gender and regional balance of CAS arbitrators remains quite unequal, with men from the Global North being overrepresented among CAS arbitrators.¹²⁹

The absence of human rights-specific knowledge among most CAS arbitrators originates not only from the fact that international sports law and human rights law have long been considered as two conceptually different fields but is also caused by the arbitrators’ appointment process. International sport governance bodies indirectly influence the nomination of CAS

¹²³ Among a randomized sample of 20 arbitrators from different geographical regions, 13 of the arbitrators had a professional background in commercial and corporate law, three focused on sports law and four had a background in other legal fields (ethics, constitutional rights, tort law, family law and public international law).

¹²⁴ According to online research, the party-appointed arbitrators, Professor Richard H. McLaren (appointed by Chand), Dr Hans Nater (appointed by the IAAF in the two cases) and Hon. Hugh L. Fraser (appointed by Semenya and AFA), all have specific expertise in sports law next to their experience with commercial/business law. The Hon. Hugh L. Fraser has in addition experience with human rights cases. The President to the two cases concerning the testosterone rules, the Hon. Dr Annabelle Claire Bennett, has experience with the regulations of scientific research and serves since 2017 as President to the Anti-Discrimination Board of New South Wales, Australia.

¹²⁵ Ruggie, *For the Game. For the World. FIFA and Human Rights*, Corporate Responsibility Initiative Report (2016) at 26.

¹²⁶ An important milestone in increasing the importance of human rights norms in business arbitration was the launching of The Hague Rules on Business and Human Rights Arbitration on 12 December 2019.

¹²⁷ Schwab, 'Embedding the Human Rights of Players in World Sport', 17 *The International Sports Law Journal* (2018) 214 at 214; Treaty on the Functioning of the European Union [2012] OJ C 326 at Art 165(1).

¹²⁸ Rigozzi, *L'arbitrage international en matière de sport* (2005) at 153-4.

¹²⁹ As of November 2018, 91 CAS arbitrators were from Africa, Latin America (including Mexico) and Asia (excluding Russia and Turkey), as opposed to 291 from Europe, (including Russia and Turkey), North America (excluding Mexico) and Oceania. In addition, by inferring a person’s gender identity from the person’s gender expression and name, only one woman was personally counted among a randomized sample of 20 CAS arbitrators.

arbitrators. They almost exclusively elect the 20 members of the CAS governing body, the International Council of Arbitration for Sports (ICAS), which in turn establishes the list of almost 400 arbitrators.¹³⁰ One ICAS member, the President of the Appeals Arbitration Division, also selects the president of panels in Appeals Procedures, such as the *Dutee Chand* case.¹³¹ In Ordinary Arbitration Procedures like the *Caster Semenya* case, the president of the panel is usually selected by the two party-appointed arbitrators or, if they cannot agree, by another ICAS member, the President of the Ordinary Arbitration Division.¹³²

The close link between international sport governance bodies, the ICAS and CAS arbitrators has been described as disadvantaging athletes in CAS procedures.¹³³ However, the European Court of Human Rights (ECtHR) held in the case of *Mutu and Pechstein v Switzerland (2018)* that the appointment procedure of CAS arbitrators does not necessarily preclude the arbitrators' independence and impartiality.¹³⁴ Nevertheless, two of the seven ECtHR judges dissented from the majority opinion by arguing that the 'structure of the CAS does not satisfy the requirement of independence and impartiality'.¹³⁵ While the ECtHR majority opinion does not see the appointment procedures of arbitrators as threatening their independent and impartial nature, it accepts that international sports governance bodies exert a certain influence on the nomination of arbitrators.¹³⁶ Notably, even though Semenya and AFA's expert witnesses revealed significant flaws in the empirical evidence presented by the IAAF, the majority of the CAS arbitrators still followed the latter by claiming that it had proven the scientific validity of the DSD Regulations.

Thus, even if according to the majority of the ECtHR independence and impartiality are upheld at the CAS, the Court's institutional set-up favours of the selection of arbitrators, whose approach to sports regulations is similar to the approach by international sports governance bodies. Their approach includes a strong focus on scientific evidence instead of human rights

¹³⁰ According to S4 of the Statutes for ICAS and CAS, National Olympic Committees, the IOC and international sports federations recognized by the IOC elect 12 of the 20 ICAS members, who in turn elect four more members. The already elected 16 members choose the last four members. No seat is reserved for representatives of athletes' associations. See: Court of Arbitration of Sport, Code: Statutes of ICAS and CAS at S4.

¹³¹ Court of Arbitration for Sport, Code: Procedural Rules R48, R53, R54.

¹³² *Ibid.*, R40.2.

¹³³ *Teilurteil Vom 15.01.2015*, U 1110/14 Kart at 79–91. See also Duval and Van Rompuy, 'Protecting Athletes' Right to a Fair Trial Through EU Competition Law: The Pechstein Case' in Paulussen et al. (eds), *Fundamental Rights in International and European Law: Public and Private Law Perspectives* (2016) 245L; Valloni and Solèr, 'CAS Structure and Procedure: It Is Now Time for a Change!', *FORIEP*: 25 May 2016, available at: blog.froriep.com/en/cas-structure-and-procedure-its-now-time-for-a-change [last accessed 25 May 2020].

¹³⁴ *Affaire Mutu et Pechstein c. Suisse*, supra n 120 at paras 150–159.

¹³⁵ *Ibid.*, Opinion Commune en Partie Dissidente, en Partie Concordante des Juges Keller et Serghides, at 5 [author's translation French into English].

¹³⁶ *Ibid.* at 157.

considerations. A certain regulatory approach or professional background does not *per se* hamper the impartiality of decision-makers in its strict legal sense, since it does not directly determine the outcome of a decision. Nevertheless, it influences which knowledge is considered to be relevant in the decision-making process. For example, the professional background of the President to the two panels, the Hon. Dr Annabelle Claire Bennett, might have contributed to a strong focus on scientific evidence. In addition to her law degree and work as a Judge presiding in the Federal Court of Australia, Bennett has a PhD in biochemistry and has held several positions in scientific oversight committees, such as the Australian Medical Science Research Council. Interestingly, she is also one of the few CAS arbitrators who has experience with anti-discrimination law, since she was appointed as President to the New South Wales Anti-Discrimination Board in 2017, two years after the *Dutee Chand* Interim Award. However, since the CAS Award does not reveal the arbitrator who dissented from the majority opinion, it remains unclear how Bennett saw the issue of discrimination in the *Caster Semenya* case.

Apart from the structural lack of human rights expertise at the CAS, one also needs to take into account the history of international sports law to understand how the panels could legitimize a ‘sex test’ based on testosterone and disregard the test’s gender and racial biases. Even though women have entered international sports over the last century, sports continue to be a highly gendered field. Many sports disciplines are still seen as a ‘male’ activity, especially those involving aggressive body contact, such as ice hockey and boxing. On the contrary, disciplines placing a high importance on graceful body appearance, such as dancing and ice-skating, are usually labelled as ‘feminine’ sports.¹³⁷ Women athletes generally receive less attention and fame than male athletes, expressed through less media coverage of women’s competitions,¹³⁸ fewer women’s sport events in international competitions,¹³⁹ and presumably

¹³⁷ Messner, 'Sports and Male Domination: The Female Athlete as Contested Ideological Terrain' (1988) 5 *Sociology of Sports Journal* 197; Messner, *Taking the Field: Women, Men, and Sports* (2002); Messner, 'Gender Ideologies, Youth Sports, and the Production of Soft Essentialism' (2011) 28 *Sociology of Sport Journal* 15; Sobal and Milgrim, 'Gendertyping Sports: Social Representations of Masculine, Feminine, and Neither-Gendered Sports among US University Students' (2017) *Journal of Gender Studies* 1.

¹³⁸ French, 'Still Not There: The Continued Invisibility of Female Athletes and Sports in the New Zealand Print Media', (2013) 148 *Media International Australia* 39-50; O'Neill and Mulready, 'The Invisible Woman?' (2015) 9 *Journalism Practice* 651. The French Audiovisual Council estimated in 2017 that 16% and 20% of all sports-related broadcasts have covered women’s sports, which constitutes a significant increase to the 7% in 2012. See: Conseil supérieur de l’audiovisuel, *Report on Women’s Sport Coverage on Television* (2017) at 5.

¹³⁹ In the 2016 Rio Olympic Games, 161 men’s sport events were organised as compared to 136 women’s sport events. See: Hills, 'Women Athletes Are Still Put in Second Place at the Olympics – It’s Time to Sprint towards Equality', *The Conversation*, available at: theconversation.com/women-athletes-are-still-put-in-second-place-at-the-olympics-its-time-to-sprint-towards-equality-63296 [last accessed 25 May 2020].

less overall funding for women's sports.¹⁴⁰ Furthermore, the success of black athletes, in particular black women athletes, has been systematically overlooked in the history of certain countries, notably the United States.¹⁴¹

The organization of international sports has contributed to creating these gender inequalities by institutionalizing gendered and racialized perceptions of body norms and leaving certain structures of oppression at the national level unaddressed. For example, sex verification procedures have institutionalized the policing of women athletes over the last century.¹⁴² In order to 'protect' women from men who fraudulently disguise themselves to compete in women's sporting events, the IAAF and the International Olympic Committee (IOC) started to require women athletes to provide medical certificates proving their gender in the 1940s. In the 1960s, these certificates were replaced by 'scientific' sex tests, which in the beginning consisted of humiliating 'naked parades' and visual examinations by doctors, but soon turned into chromosome tests. Due to a variety of problems caused by chromosome tests, the IAAF and the IOC abandoned them in 1988 and 1999 respectively. This left them without any official sex testing procedure until they started to use testosterone as the new measurement for the female sex in the early 2000s.¹⁴³ The testosterone rules are therefore carrying on the legacy of a century of scrutinizing female athletes for not being 'real' women and deferring the authority to determine women athletes' sex to the medical discipline.

Other eligibility regulations, except 'sex tests', have further created gendered images of sports by restricting the access of women and men to certain sporting disciplines and events. The first modern Olympic Games in 1896 excluded women entirely and women only gained access to Olympic disciplines gradually. It took until 2012 before women could finally compete in the last men-only discipline – boxing.¹⁴⁴ The rationales for restricting the access of women to certain disciplines were that the sports were not 'feminine' and female bodies too 'fragile'

¹⁴⁰ Messner, 2011, supra n 137 at 167. More and more sports disciplines ensure equal prize money for top-level sport events, but gender disparities continue to exist for prize money in lower-level events. See: Levitt, 'State of Pay: Tennis Has Huge Gender Gap in Earning Power', *The Guardian*, 14 July 2018.

¹⁴¹ For example: Amira Rose Davis, 'No League of Their Own. Baseball, Black Women and the Politics of Representation' [2016] *Radical History Review* 74; Amira Rose Davis, 'Can't Eat A Medal: Black Women Athletes Under Jim Crow', available at: audioboom.com/posts/6856867-can-t-eat-a-medal-black-women-athletes-under-jim-crow [last accessed 25 May 2020]; Jeremy Schaap, *Triumph: The Untold Story of Jesse Owens and Hitler's Olympics* (2007).

¹⁴² Heggie, supra n 17 at 159.

¹⁴³ Heggie, supra n 17. From 1988 to 1992, the IAAF required visual examinations by team doctors as 'sex tests', but eventually abandoned the practice since it assumed that tight sportswear and regular doping tests, which required urinating in front of witnesses, would expose potential male imposters. See *Ibid.*

¹⁴⁴ International Olympic Committee, 'Key Dates in the History of Women in the Olympic Movement', 19 October 2017, available at: olympic.org/women-in-sport/background/key-dates [last accessed 25 May 2020].

and ‘weak’ for certain competitive sports.¹⁴⁵ While women can now compete in all disciplines, the 2016 Olympic Games in Rio de Janeiro still prevented men from competing in two disciplines that are traditionally seen as ‘feminine’: synchronized swimming and rhythmic gymnastics.¹⁴⁶ Gender norms, as they have been institutionalized by international sport regulations, are transgressed when women athletes, such as Chand and Semenya, thrive in disciplines related to endurance, speed and strength, instead of those focusing on graceful appearance. As pointed out by Mennesson, professional women athletes who compete in traditionally ‘masculine’ disciplines experience a double burden. They not only have to demonstrate that their body satisfies the normative standards of the respective discipline (for example muscularity, strength, endurance), but often also face the pressure to display a ‘feminine’ appearance and behaviour.¹⁴⁷ In many contexts this burden is even heavier for black and brown women, since stereotypical standards of femininity are often based upon white bodies.¹⁴⁸

As pointed out by various scholars, sports is often seen as apolitical space where only athletic or coaching performance matters for success.¹⁴⁹ Yet, as the activism of athletes as part of the Black Lives Matter movement in the United States shows, sports is far from being outside

¹⁴⁵ The assumption that women are too fragile to compete in certain disciplines is reflected in the decision to cut the 800-meter sprint for women from the Olympic Games in 1928. After years of struggle, the all-male Olympic Committee had agreed to an 800-meter sprint event for women in 1928. However, since reports of the event claimed that most participants dropped out during the race or collapsed after the finish line, the IOC argued that women were too weak to compete in middle- and long-distance racing and eliminated the 800-meter sprint event for women until 1960. Subsequent reports have revealed that the accounts of women dropping out and/or collapsing were false and that the athletes were in similar conditions as runners of any other high-level running event. See: Robinson, “‘Eleven Wretched Women’: What Really Happened in the First Olympic Women’s 800m”, *Runner’s World*, 14 May 2012, available at: runnersworld.com/advanced/a20802639/eleven-wretched-women/ [last accessed 25 May 2020].

¹⁴⁶ Jenkin, ‘Synching Feeling: Male Synchronised Swimmers Bid to Be Taken Seriously’, *The Guardian* (2013), available at: theguardian.com/lifeandstyle/the-swimming-blog/2013/dec/18/male-synchronised-swimming-london-ots-angels [last accessed 25 May 2020]; Keng Kuek Ser, ‘See 120 Years of Struggle for Gender Equality at the Olympics’, *Public Radio International*, 2016, available at: pri.org/stories/2016-08-17/see-120-years-struggle-gender-equality-olympics [last accessed 25 May 2020]; *Gymnastics Rhythmic - Summer Olympic Sport*, 22 June 2017, International Olympic Committee, available at: olympic.org/gymnastics-rhythmic [last accessed 25 May 2020]; *Key Dates in the History of Women in the Olympic Movement*, supra n 144; *Synchronized Swimming - Summer Olympic Sport*, International Olympic Committee, available at: olympic.org/synchronized-swimming [last accessed 25 May 2020].

¹⁴⁷ Mennesson, ‘Les sportives ‘professionnelles’: travail du corps et division sexuée du travail’ (2007) 42 *Cahiers du Genre* 19.

¹⁴⁸ Douglas, ‘To Be Young, Gifted, Black and Female: A Meditation on the Cultural Politics at Play in Representations of Venus and Serena Williams’ (2002) 5 *Sociology of Sport Online* 1; Lind Withycombe, ‘Intersecting Selves: African American Female Athletes’ Experiences of Sport’ (2011) 28 *Sociology of Sport Journal* 478; Nittle, ‘The Serena Williams Catsuit Ban Shows That Tennis Can’t Get Past Its Elitist Roots’, *Vox*, 28 August 2018), available at: vox.com/2018/8/28/17791518/serena-williams-catsuit-ban-french-open-tennis-racist-sexist-country-club-sport [last accessed 25 May 2020].

¹⁴⁹ Cooper, Macaulay and Rodriguez, ‘Race and Resistance: A Typology of African American Sport Activism’ (2019) 54 *International Review for the Sociology of Sport* 151.

of broader political structures, such as racism and sexism.¹⁵⁰ International sports governance bodies have partly shown concern for racial and gender inequalities persistent within national sporting federations, but their approach to address these inequalities has been rather inconsistent and differed according to the respective geopolitical situation. For example, the IOC and other international sports governance bodies banned South Africa and Rhodesia from international competitions due to their apartheid policies in sports. However, *de facto* racially segregated sporting leagues and a high level of institutionalized discrimination in sports in other countries have received less attention.¹⁵¹ Similarly, Afghanistan was banned from the Olympic Games from 1999-2002, due to the prohibition on women's participation in sporting activities by the Taliban regime. On the contrary, several other countries, such as Saudi Arabia and Qatar, until 2012 excluded women from the Olympics, without being barred from international competitions.¹⁵²

7. CONCLUSIONS

The CAS panel held in the *Caster Semenya* case that, since the DSD Regulations are based on *scientific evidence*, endogenous testosterone may be used as a criterion to define the category 'women' for the restricted sport events. As shown in this article, the acceptance of such a reductionist definition of female sex for sporting purposes, justified in the name of science,

¹⁵⁰ Scholars have also argued that sport 'is a site wherein broader forms of social inequality are accepted, tolerated, and ignored'. See Cooky and Dworkin, 'Policing the Boundaries of Sex: A Critical Examination of Gender Verification and the Caster Semenya Controversy' (2013) 50 *Journal of Sex Research* 103 at 107.

¹⁵¹ For example, various studies have shown that a high level of racial discrimination prevails in the field of sports in the United States, which had racially segregated leagues in certain disciplines, such as golf and tennis, up until the 1960s. The situation of Palestinian athletes, who often face barriers to their participation in international competitions, has induced some to call out for sanctions against Israel by international sport governance bodies, such as FIFA. In addition, *de facto* racial segregation in certain sport disciplines, such as cricket, football and rugby, continues to be an issue in post-apartheid South Africa. See Walter, 'The Changing Status of the Black Athlete in the 20th Century United States', *American Studies Resources Centre*, 1996, available at: www.americansc.org.uk/Online/walters.htm [last accessed 25 May 2020]; Khalidi and Raab, 'Palestine and the Olympics – A History' (2017) 34 *The International Journal of the History of Sport* 1403; Desai and Sykes, 'An "Olympics without Apartheid": Brazilian-Palestinian Solidarity against Israeli Securitisation' (2019) 60 *Race & Class* 27; FIFA, 'FIFA Council Statement on the Final Report by the FIFA Monitoring Committee Israel-Palestine', 27 October 2017, available at: fifa.com/about-fifa/who-we-are/news/fifa-council-statement-on-the-final-report-by-the-fifa-monitoring-comm-2917741 [last accessed 25 May 2020]; Bolsmann and Burnett, 'Taking South African Sport Seriously' (2015) 46 *South African Review of Sociology* 1 at 2.

¹⁵² Case-Levine, 'Saudi Arabia Lets Women Compete in the Olympics, but Bans Them from Playing Sports Back Home', *Quartz*, 8 August 2016, available at: qz.com/752289/even-as-saudi-female-olympians-compete-women-face-discrimination-back-home/ [last accessed 25 May 2020]; Gardner, 'London 2012 Olympics: Saudi Women Allowed into Olympics', *BBC*, 24 June 2012, available at: bbc.com/news/world-middle-east-18571193 [last accessed 25 May 2020]. The example of Afghanistan being banned from the Olympics due to the Taliban regime shows how international sports regulations are deeply embedded in international discourses, such as the need to 'liberate' Afghan women from the Taliban through international interventions. Ratna Kapur analyses how the narrative of 'liberation' was used for justifying the US military intervention in Afghanistan in 2001. See: Kapur, 'UnVeiling Women's Rights in the "War on Terrorism"' (2002) 9 *Duke Journal of Gender Law & Policy* 211.

was possible due to dominant discourses on gender, sports and law as well as structural conditions of current international sports law. The testosterone rules are the continuation of the medicalized discourse on the definition of sex and gender in law and society that has existed over the last century and that has resulted in the undertaking of harmful genital surgeries on children with intersex variations. Focusing on the ‘scientificity’ of the testosterone rules allowed the CAS arbitrators to draw a boundary between ‘science’ and ‘non-science’, and provided the guise of objectivity to their decisions. In addition, by endorsing the construction of easily implementable, determinate and binary sex categories through the measurement of a few biological variables, the CAS retained the authority to police the boundaries of sex. This also legitimized the undertaking of medically unnecessary body alterations on women with intersex variations.

Moreover, by focusing on the causal relationship between endogenous testosterone and athletic performance, the panel could ignore how structures of sexism, racism, intersexphobia, eurocentrism and classicism intersect and create biased understandings of the meanings of *sportswoman* and *fairness*. This fits the way in which the CAS has construed its mandate, since according to Vieweg, the CAS has been generally reluctant to put forward a definition of the content of ‘fairness’, allowing sports governance bodies large autonomy in their norm-setting processes. The CAS arbitrators thus construed the proportionality test in a way that left gender and racial biases unaddressed.

Structural factors of current international sports law further encouraged the focus on scientific evidence in the proceedings of the two cases and legitimized the testosterone rule in the *Caster Semenya* case. Like investment arbitrators, most CAS arbitrators lack experience with human rights cases, since sports and human rights law have long been seen as two conceptually different legal terrains. In addition, the arbitrators’ appointment procedure favours the nomination of arbitrators that share the regulatory approach to sports of international sports governance bodies, including a preference for ‘scientific’ evidence instead of human rights considerations. Finally, the CAS panel’s ignorance of gender and racial biases in testosterone rules is part of a long history of sporting regulations that have institutionalized gendered, and also indirectly racialized, views of body norms. Altogether, these regulations legitimized the view that gender *can* be scientifically measured through the reliance on a few variables and that it *needs* to be measured for the purpose policing the sex/gender binary in sports. The question in the title of this article can certainly not be answered, since women are far too diverse and come from too different social and geographical places to all share the same experiences with sports. However, this article shows that being a woman who is affected by the testosterone rules

means that one's athletic performance is valued according to so-called 'scientific' tests of womanhood, informed by stereotypical, white and intersexphobic notions of femininity.

The analysis of jurisprudence on the testosterone rules by CAS provides insight into the general dynamics concerning the legal definition of sex and gender. Although the CLS movement has demonstrated that any legal definition is ultimately contingent and reflects a certain positionality of its creator, legal bodies still hold on to the authority to define gender and sex, and categorize people into gendered boxes. Abandoning the function of legally policing the boundaries of the categories of women and men seems too threatening for a social system that is based on binary gender relations and binary sports divisions. Women who transgress the gender binary in sports by being too fast, too athletic, and too 'masculine' seem to endanger a system that is built on the theory of male superiority in sports. The separation into women and men's sports competitions at the professional level in certain disciplines makes arguable (still) sense, since women would likely drop out of the ranks of winners in these disciplines if they were gender-mixed. However, keeping up the binary division at the competitive level for the purpose of ensuring women's participation does not need to result in the policing of gender categories, notably in the women's category. Defining the boundaries of the category 'sportswoman' mainly reproduces the assumption that women and men are inherently different, opposite, and complementary legal and biological entities. Indeed, as the history of sex verification procedures shows, it is impossible to put sex and gender into clear-cut, determinate, and dichotomous boxes. The discussion on the testosterone rules, as carried out by CAS, has thus started a reconsideration of the unquestioned and naturalized binary division between women and men in sports and made its performativity visible. It is to be seen how the Swiss Federal Supreme Court is approaching the issue in its upcoming decision in the *Caster Semenya* case.