

# Challenging the Binary

## Gender, Fraud, and the Complexities of Categorization in Elite Sports

---

Dennis Krämer, Cleo Schyvinck

**Abstract** *The organization of elite sport is based on the principle that athletes come in two genders: male or female. To ensure disjunctive segregation and prevent participation in the wrong category, all athletes, including intersex/DSD, non-binary, and transgender individuals, are assigned to one of these categories. Since the 1930s, sports governing bodies have relied on medico-scientific criteria and various measuring instruments to assess whether an athlete is eligible to compete in the female category. In recent years, this procedure has become a political issue and source of conflict for intersex/DSD and transgender athletes as well as human rights activists. Athletes and activists argue that within the system of elite sport, intersex/DSD and transgender athletes are treated as illegitimate competitors, gender frauds, a threat to women's sports, and an issue in need of medical fixing. In this paper, we use the example of professional athletics to show how gender and fraud are linked and how the binary distinction is secured through medical practices. We demonstrate that the criteria used to differentiate between women's and men's sports discriminate other genders and raise various social concerns.*

**Keywords** *Gender; Fraud; Sport; Human Rights; Integrity; Intersex; Transgender*

### 1. Balancing Sports Interests and Gender Discrimination

The gender eligibility regulations recently published by sports federations such as World Athletics and World Aquatics give cause for reflection. Their stated concern is to protect the integrity of elite sports by ensuring a clear gender di-

vision based on biological criteria such as testosterone levels. In the history of athletics, calls for clear gender segregation first appeared in the early 20th century and were aimed at keeping men in disguise, labeled as gender frauds, out of the female category (Krämer 2020; Pieper 2016; Erikainen 2017; Heggie 2010). Their concern was based on the fact that some male athletes intended to gain an unfair advantage due to their superior physiology and therefore tried to compete in the female category, with bound breasts and long hair. It became clear that looking back, frequently, intersex/DSD and transgender athletes, rather than men in disguise, were accused of gender fraud, as their existence was often unknown to sports federations, the public, and medical professionals.

The link between gender and fraud established for this purpose was essentially based on two naturalistic assumptions: First, that there are only two genders and that all others – non-binary, intersex/DSD<sup>1</sup>, transgender athletes – are merely disguises to be exposed; and second, that it is men who seek to profit from their physical superiority and therefore gain illegitimate access to the female category. This view on gender has changed fundamentally over time. In recent years, the world governing bodies of athletics have faced the challenge of breaking away from the traditional concept of gender and fraud. This is prompted by various social developments not limited to sports alone: Since the 1990s, the proliferation of digital communication has created opportunities to gain a more comprehensive understanding of sex and gender, to provide insight into the complex dimensions of gender development, and to out one's gender identity in a protected space. Many intersex/DSD and transgender people, who, for a long time, considered themselves exceptional cases and were exclusively informed about their gender identity by medical experts, have now come into contact with others who have had similar life and medical treatment experiences. This process led to destigmatization and increased public awareness of the existential problems that intersex/DSD and transgender individuals could experience living outside the binary gender norm (Krämer 2022). In response, several countries have introduced legal safeguards; more than 20 have now established an official third gender (including Germany, Argentina, Uruguay, Bangladesh, and India). In the U.S., there are currently 17 states with these safeguards in place (MAP 2023). In addition, numerous states have moved to allow individuals to self-determine

---

1 DSD is the medical abbreviation for differences in sex development.

their gender, as is currently planned in Germany for 2025 with the »Self-Determination Act« (»Selbstbestimmungsgesetz«).

These developments have been joined by explosive cases from sports, which, beginning with the case of Spanish athlete Maria Martínez-Patiño in the 1980s, have pointed to the problematic connection between sex, gender and fraud (Martínez-Patiño et al. 2016; Harper et al. 2018). Criticized have been both the medical sex verification performed to realize a binary distinction and the one-sided problematization of women's sports and women's bodies. Recent cases in sports, such as those of South African Caster Semenya, Ugandan Annet Negesa, and Zambian Barbra Banda, have also been accompanied by postcolonial critiques arguing that accusations of gender fraud primarily affect female athletes from African countries and perpetuate a cultural ideal of the Western female body under the guise of scientific practice (Cooky et al. 2013; Orgeret 2016).

The current guidelines of the sports federations are primarily aimed at regulating the bodies of athletes who show variants in their sex (intersex/DSD) or transgressions in their sex according to their actual gender identity (transgender). However, even though it is no longer about revealing men in disguise, certain body features are still classified as genuinely male attributes and disruptive factors in elite sports. Against this background, sports organizations are no longer concerned with avoiding men in women's sports to ensure fairer and more meaningful competition. Instead, it is about a specific evaluation of physical suitability regulated by biological criteria such as genitals, chromosomes, and testosterone levels. Hence, over the span of the last century, sports organizations have established various methods, such as laboratory testing, to measure these sex characteristics. Even though these measures aim to realize fair competition through a binary distinction, they may conflict with the principles of elite sports as an international and inclusive social sphere.

This commentary seeks to raise awareness of the link between gender and fraud, and illustrate that the measures envisaged to prevent gender fraud in elite sports can be fraught with serious problems. To this end, we will first examine the concept of fraud and the importance of avoiding fraud in sports. We will then describe the contextual conditions under which certain gender developments are considered frauds. The third part highlights a tension between gender and fraud and illustrates that regulatory methods such as testosterone-lowering therapies are serious intrusions into athletes' physical and personal integrity. The paper concludes with suggestions for a more nuanced look at gender inclusion and integrity.

## 2. Discourse on Fraud in Sports

While the relationship between gender and fraud in sports has received little attention to date, a broad international discourse exists on the function and prevention of fraud. In order to prevent fraud in sports, the sector has delineated strict rules and regulations. For example, the Council of Europe developed the Convention on the Manipulation of Sports Competitions (Council of Europe Convention 2014a), better known as the Macolin Convention, to prevent sports fraud. The convention defines the concept of manipulation of sports competitions as follows:

an intentional arrangement, act or omission aimed at an improper (= contrary to criminal or disciplinary law) alteration of the result or the course of a sports competition in order to remove all or part of the unpredictable nature of the sports mentioned above the competition to obtain an undue advantage for oneself or others.

Although straightforward on paper, specific sports fraud incidents are not easy to detect and label as fraud. In order to avoid gender fraud, for example, medico-scientific rules and measuring instruments have been developed to categorize persons in clear gender categories. However, defining and labeling fraud must go beyond looking at the individual. Fraud must be studied from a micro or individual level, the meso or organizational level, and the macro or institutional level. Both in academic and public discourse, there is a focus on micro-level explanations for fraud at the cost of meso- and macro-level understanding of processes that facilitate or prevent fraud (Numerato and Baglioni 2012). Sports studies target individuals (i.e., bad apples) and on-the-field activities rather than dealing with off-the-field systems, structures, and the role of sports governing bodies (i.e., wrong basses) that influence fraud in sports (Souvenir et al. 2023).

Indeed, fraud does not happen in isolation, and individual athletes are always, at least to some extent, part of a social organization and system. Some structural and cultural elements in sports organizations create fraud vulnerabilities. For example, the long-lasting history of doping in cycling can be attributed to the sport's financial instability, prize-sharing systems, and peer pressure (Van Reeth and Larson 2016). Systemic explanations for fraud originate in sociology, political and economic sciences. As such, the manifestation

of gender fraud within a particular society will always relate to a country's politics, laws, economy, and socio-cultural context.

The growing professionalization and commercialization of the sports sector are, to some extent, enlarging its fraud vulnerability and other risks for integrity violations (Kihl et al., 2018). Increasingly, sport is becoming an industry rather than a participatory health activity that can help combat social exclusion and promote social inclusion (Coalter 2017). Gammelsaeter (2021) argues that too many scholars and practitioners have elevated the externalities of sports to the center while largely neglecting sport's unique character to impact people and societies positively. Within our neoliberal cultures, sport is renowned for delivering large amounts of money from performing, organizing, broadcasting, and broking (Newman 2014). In this external market orientation, money develops the power to »win at any price,« even if that incurs undermining morals and values. To that end, sports governing bodies have repeatedly tried to draw a line between men and women to uphold a gender-segregated sporting paradigm, especially answering commercialization rather than communization needs.

Rules and regulations regarding gender mainly follow institutionalized forms of rule (e.g., deciding on one alternative because it »has always been done this way«) based on historical and legal ruling patterns (Rubinstein and Maravić 2010). However, relating to binary gender categorization, this causes normative tensions at the governance level. Decisions made by institutionalized rules may be justified from a legal and commercial perspective but may have become opaque from a broader moral and human rights perspective. Along similar lines, Gardiner et al. (2016) propose a shift from a narrow notion of behavioral integrity to a broader value-based moral integrity. Installing rules, ethical codes, or diversity policies that aid behavioral integrity is insufficient because they do not necessarily connect to governance. The criteria for assessing an incident as gender fraud, therefore, should refer not only to laws, codes, or behaviors but also moral boundaries.

The fact that sport governing bodies set their own rules and self-organize their disciplinary structures leaves athletes vulnerable (Patel 2021). Courts dealing with legal inquiries on human rights violations are often reluctant to intervene in sports matters, instead deferring to the sport's disciplinary bodies and systems. In its self-regulatory private sphere, sport falls outside the scope of government control, allowing them to operate under its own system of virtues, sometimes inconsistent with societal or legal realities. The sports industry, keen on accumulating revenue, benefits from maintaining

binary categories. Left behind are the athletes whose health (e.g., marathons in Doha), mental health (e.g., extreme pressure abuse in gymnastics), and human rights (e.g., gender violations) are put at risk.

### 3. Discourse on Gender Frauds

Concerning the topic, the question arises of how sex and gender variants/transgressions are systematically avoided in sports, how these avoidance strategies change historically, and how they are morally justified. In order to maintain the binary structures, sports federations such as World Athletics act as »gatekeepers« (Henne 2014: 799), defining physiological criteria for participation in women's sports. Specifically, sex testing, as conducted in areas such as professional athletics, can be divided into formalizing, naturalizing, and moralizing practices of classification.

#### 3.1 Formalizing Practice of Classification

The first sex tests were conducted during the twenty-year interwar period between 1919 and 1939 under the supervision of national sports federations. A prominent example of an athlete who was exposed as a gender fraud during this period is German high jumper Dora Ratjen, who was arrested by the police after her world record victory at the 1938 World Athletics Championships in Vienna (Krämer 2020; Bahro 2009; Heggie 2010). Her story is preceded by other cases of intersex/DSD and transgender athletes, such as Stella Walsh or Zdenka Koubkova, who, as in the case of Stella Walsh, were either identified as intersex/DSD posthumously or, as in the case of Zdenka Koubkova, transitioned during her lifetime and continued to live as a man (Zdeněk Koubek).

After World War II's end, genital examination was first transformed into a mandatory testing procedure at the 1946 London Women's World Games. Athletes who intended to compete in women's sports had to bring a certificate of femininity based on a gynecological examination before participation. This changed due to the geopolitical situation in the postwar period. During the Cold War, a narrative emerged in the West that Soviet sports federations were systematically doping their athletes and introducing men in disguise into women's sports at international sporting events (Wagg and Andrews 2007). In response, the IOC and IAAF established medical commissions that introduced doping and sex tests as a first step of action. The latter was designed to re-

quire women to undergo genital examinations on-site. Since then, their essential tasks have been establishing physical requirements in regularly adopted »gender policies«. Furthermore, a historical peculiarity is currently emerging in the gender policies of sports federations. While the IOC, in the recently published »IOC Framework on Fairness, Inclusion, and Non-Discrimination,« for the first time in the history of sports, publicly positioned itself in favor of the inclusion of intersex/DSD and transgender athletes, other sports federations such as the World Athletics or World Aquatics adhere to the practice of sex testing.

For instance, according to the World Athletics Federation's Gender Policy published in March 2023, intersex/DSD athletes with certain medical conditions such as partial androgen insensitivity syndrome or 5 $\alpha$ -reductase type 2 are classified as »relevant athletes« and excluded from all disciplines at international sporting events unless they meet expected testosterone limits. For transgender individuals, there is the added restriction that athletes competing in the women's category must not have gone through male puberty or have only brief male puberty. In the case of intersex/DSD athletes, those whose bodies have endogenous testosterone levels classified as above average (endogenous testosterone) are excluded, which is medically referred to as »hyperandrogenism.« If intersex/DSD athletes nevertheless intend to compete, they must meet three criteria:

- be recognized at law (for example, in a birth certificate or passport) either as female or as intersex;
- have continuously maintained the concentration of testosterone in their serum below 2.5 nmol/L for at least 24 months;
- and continue to maintain the concentration of testosterone in their serum below 2.5 nmol/L at all times (i.e., whether they compete or are out of competition) for so long as they wish to retain eligibility to compete in the female classification at World Rankings Competitions and to have recognized any World Record performance in the female classification at a competition that is not a World Rankings Competition (World Athletics 2023).

The rationale for this is that in these disciplines, the influence of testosterone on athletic performance is considered significant (Bermón and Garnier, 2017). The criteria listed in the current regulations of the World Athletics aim to maintain the binary boundary between the male and female category through spe-

cific requirements such as testosterone values or legal registration of gender. At the same time, it does not provide any information on how to reduce testosterone levels. Nor do they say anything about dealing with other individuals like cisgender athletes who develop a male or female gender identity according to their male or female body.

Medically, two procedures are conceivable for lowering testosterone levels: contraceptive treatment with anti-androgens or gonadectomy, i.e., surgical removal of the testosterone-producing gonads. Athletes, activists, and scholars have repeatedly pointed out that both forms of treatment are profound interventions in athletes' physical and psychological well-being that cannot be reconciled with the fundamental idea of modern sport as a non-discriminating inclusive sphere (Blithe and Hanchey 2015). Interference with athletes' natural hormonal balance impacts the self and body perception and can affect libido, fertility, and metabolism. Moreover, body-centered policies tempt us to view a binary gender divide solely regarding physical disposition, bypassing reflection on sports structures. To make matters worse, the proposed interventions in athletes' bodies conflict with international law, such as the EU Charter's Right of the Dignity of the Human Person. In these, the inviolability of one's social and physical integrity is a high human right, which sports federations undermine with a purely binary negotiated fair play principle.

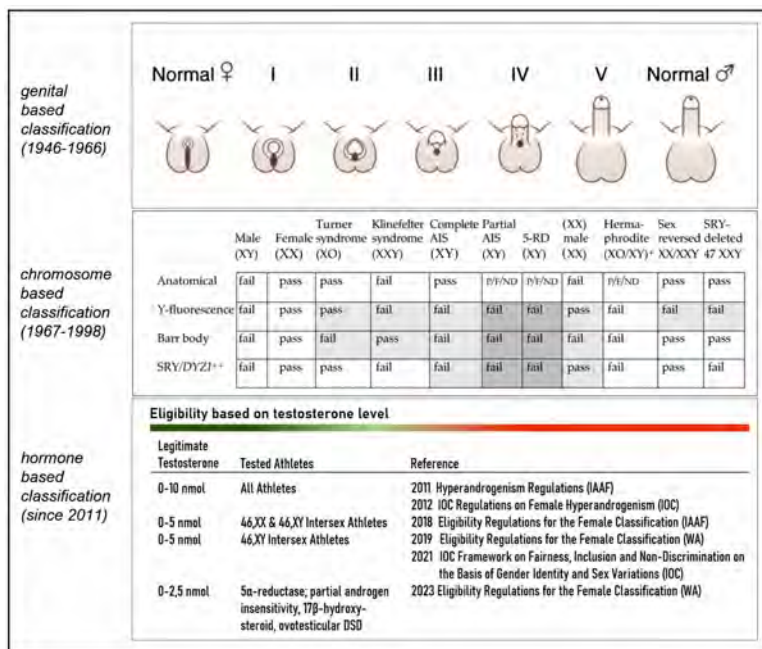
It is also problematic that measurement of sex characteristics, such as testosterone values is not a reliable criterion, since the values determined can vary with age and may depend on the time of day and daily form. Moreover, the scientific representativeness used to justify the boundary between women's and men's sports is highly questionable since the varying values, consistently taken further, also lead to performance distortions in men's sports; here, norm values would also have to be evaluated as inclusion and exclusion criteria (Knox et al. 2019).

### 3.2 Naturalizing Practice of Classification

In addition, the compulsion to categorize bodies in binary terms implies that other genders and bodies remain invisible. This aspect becomes particularly significant when one illustrates the variability that genitalia, chromosomes, and hormones can indicate in cases of intersex/DSD. Figure 1 provides an overview of the dominant classification practices that have prevailed since the 1930s and distinguishes between three paradigms of binary segregation (Krämer 2023).



Figure 1: Paradigms of Gender Classification (Krämer/Schyvinck)



(1) **Genital-based classification** Genital-based classification dominated gender segregation in professional athletics from 1946 to 1966, based on the notion that gender assignment could be made based on two different types of external genitalia. Endocrinologist Andrea Prader translated this approach into an official taxonomy in the mid-20th century called the »Prader Scale,« which played an essential role in treating intersex/DSD children in the second half of the 20th century (Prader 1957). The mandatory genital-based classification was first performed on-site at the British Commonwealth Games and the European Athletics Championships in Budapest in 1966. Athletes who intended to participate in the women's category had to undergo a genital examination prior to the tournament. Due to the fundamentally cross-border nature of this procedure and the different cultural and religious shame attached to nudity, some of the athletes described the treatment as »invasive, embarrassing, and inappropriate [...] nude parades« (Blithe and Hanchey 2015: 494).

**(2) Chromosome-based classification** In response to massive criticism, mandatory genital-based sex testing was replaced as early as 1967 by chromosome-based classification. For this purpose, a tissue sample was taken from the athletes before the tournament by oral mucosal swab and then examined regarding the chromosome combination in the laboratory. Figure 1 shows a distinction between different test forms performed in the 1967 to 1998 period. Notably, the eligibility of intersex/DSD athletes depended less on the actual chromosome combination than primarily on which test was performed and which syndrome could be identified with that particular test. For example, during this time, intersex/DSD athletes with Klinefelter syndrome (XXY-Karyotype) could be excluded from three tests while passing the Barr-Body-Test due to the second X chromosome.

**(3) Hormone-based classification** Hormone-based classification indicates the current medical authority of testosterone in binary gender segregation. Establishing a tolerance range for testosterone levels is at the heart of the policies published in 2011. Against this backdrop, figure 1 points out three essential aspects: the high number of updated guidelines in the relatively short period of twelve years; the tightening of the tolerance range from initially 10 to 2,5 nmol/l testosterone; and the restriction of disqualified athletes from formerly »All athletes« (2011) and »46, XY Intersex Athletes« (2019) to specific medical conditions such as partial androgen insensitivity syndrome or 5 $\alpha$ -reductase.

This historical development shows that assumptions about sex and gender as well as ideas about fairness and fraud reflect contingent notions. Although on the surface a binary gender segregation has been maintained at all times. Under the surface it becomes apparent that the way in which this binary distinction is secured is subject to continuous change. Whereas genital inspection was still all about judging men's participation in women's sports as fraud and preventing it through visual inspection, chromosome testing moved to distinguish between the sexes through more discrete practice and, to this end, viewing internal sexual characteristics as indications of actual affiliation. The importance of testosterone levels has, for some years, represented a way of thinking that sees gender fraud not just as crossing a boundary but as a phenomenon that can be fundamentally regulated: bodies that can be appropriately modified for participation in sports and thus brought into shape by medication.

### 3.3 Moralizing Practice of Classification

The basic idea behind the gender separation is to guarantee a fair, exciting and more media-effective competition. A sporting event would be unattractive for competitors and the audience if it were always evident in advance who would win the next race or boxing match. At the same time, a paradox emerges in this claim: On the one hand, gender segregation aims to guarantee equal opportunities by measuring permissible gender characteristics; on the other hand, the distinction between legitimate and illegitimate predispositions is highly selective. Furthermore, sex testing is not only about the objective segregation of biological bodies; it also implicitly relies on the assumption of a legitimate or illegitimate physiological predisposition that must be avoided.

When looking at current policies in athletics that recognize a problem in the testosterone value, the question arises as to why the sports federations classify this as illegitimate. Why is this not regarded as a biological predisposition distinguishing athletes and enabling them to perform exceptionally well?

In Semenya's case, it could also be argued that her hyperandrogenic nature enables her to excel in middle-distance running but not to win gold medals in other disciplines such as ballet dancing or synchronized swimming. However, other biological features can represent influential but unquestioningly tolerated advantage factors: age, height, leg length, hemoglobin level, or country of origin. Similarly, in the case of other athletes, their outstanding performances owe as much to their fantastic bodies. Examples include the widespread high growth in elite basketball players, known in medical discourse as »macrosomy«, or Usain Bolt's long muscular legs, that enable peak performance in short-distance running. The suspicion therefore arises that sex testing is not per se about the prevention of fraud or unfair advantages, but about lending credibility to sport by suggesting to athletes and the public that only the best athletes will prevail under conditions of officially secured gender homogeneity.

## 4. Critical Points

In a binary system that differentiates women and men based on changing biological characteristics, intersex/DSD and transgender athletes can only appear as illegitimate participants or as in need of medical treatment. Furthermore, the sex tests described above are by no means neutral practices but rather

modes of categorization that can cause great harm. Although sports federations now take a position against serious procedures such as gonadectomy, it remains difficult to say whether such procedures are not being performed outside of sports. This raises questions about the morally correct treatment of gender in sports at various levels:

- Thus, obtaining the ability to participate by lowering testosterone levels with medication represents a severe interference with the physical integrity of athletes, which is difficult to justify with the requirements of an inclusive system such as sport. Transgender and intersex/DSD individuals are part of a vulnerable group who, often since childhood, feel they do not belong and face social exclusion and hostility (Garfinkel 1967; Holm 2017). For many of them, coming out is associated with great overcoming. Many never come out. By adhering to a binary system and conforming bodies, sports systematically contribute to the hetero-normalization and normalization of bi-sexuality. Continuing to label variations and transgressions of sex and gender as »abnormal, unnatural, or deviant« (Linghede 2018: 571) and »in need of treatment or fixing« (Holmes 2009: 3), intersex/DSD and transgender athletes remain invisible in the sphere of elite sports or appear as problems that must be stripped of their otherness in order to compete.
- In addition, top-level sport is a sphere that enjoys excellent media and public attention. For example, Wonkam et al. (2010) state that testosterone levels, chromosome sets, or the appearance of sexual organs are susceptible information about which the individuals concerned, but not the public, should be informed. Cases such as those of Maria Martínez-Patiño, Caster Semenya, or Lia Thomas make it clear that the public knew extensively about the physical and mental development of the athletes and that a specific idea of fraud and fairness was transported medially.
- Besides, organized elite sports only keep up with developments from other areas of society to a limited extent and uncouple themselves from those developments. While there is an international trend in fields such as medicine or law to give more weight to a person's self-determined gender assignment than on external determinations (e.g., by parents, therapists, or medical experts), sport is still characterized by the opposite prioritization of assigning athletes to fixed places in a binary system.
- Finally, there is also an ongoing *race* debate. White female athletes are rarely at the center of attention as they are visually more conformed to

Western femininity ideals (Camporesi 2018). While Eastern European women used to be under scrutiny, more recently, women of color have been disproportionately investigated. Suspicion-targeted testing is based on appearance and success, discriminating against women other than the default cis-gendered, white women in sports.

## 5. Towards a Solution

Remarkably, little effort is being made to formulate solutions to this complex problem. Scientists react to each other's proposals by either supporting or rejecting them. The history of sex testing and the one-sided fixation on bodies being evaluated and regulated has not led to any noticeable improvement in the current situation in elite sports but has triggered new debates on discrimination. Finding a solution that satisfies all parties equally is almost impossible. However, various criteria that could lead to a noticeable improvement in the current situation can be pointed out. An adequate solution can only succeed if the organization of sports takes note of acute social developments and respects the existential needs of people.

Like Shaw and Frisby (2006) and Knoppers (2015), we draw from post-structural theory and present three pathways for creating an ordinary playground. This theory questions the logic (and the normalized practices bound to them) to create space for developing new meanings to guide the implementation of alternative policies and practices (Fletcher 1999). Rather than taking a remedial approach, we suggest processes that might underpin change. This may include but is not limited to (1) the use of critical performativity (Spicer et al. 2009), (2) taking a bifocal approach (De Vries and Van den Brink 2016), and (3) applying third space (Forgasz et al. 2018).

**(1) Critical performativity** Performativity refers to the performative acts that are embedded in speech. According to Butler, »performative acts are forms of authoritative speech; most performatives, for instance, are statements that, in the uttering, also perform a certain action and exercise a binding power« (Butler 1993: 225). Critical performativity entails an attempt to question, challenge and re-imagine the performative acts of gender in sports. It starts with asking critical questions to uncover underlying assumptions, for example, about the need for a clear division of sport into male and female categories. In that re-

gard, performative acts label women with sex and gender variants/transgressions as problematic and suggest that their bodies need fixing. Policies are developed to address a (biological) problem that is, at least to some extent, socially constructed and, as we showed above, subject to discursive change. Luckily, this also means we could approach gender as an opportunity rather than a problem. This requires a broader set of voices to be heard, not the least those of the athletes, fostering more dialogue and empathy among the stakeholders involved. Sports managers and academics alike could look at better balancing sports performance and personal development/well-being and develop policies and practices that prioritize the holistic development of athletes. They could also critically examine how the commercial logic and profit-seeking of sponsors, media, broadcasters, and the like are part of the systemic bias (and therefore also of the solution).

**(2) A bifocal approach** Frequently, transformative interventions in gender management are focused on fixing things. Such approaches have limited effect as they aim to increase women's inclusion in sports without unsettling the masculine, white, elitist, heteronormative assumptions that underlie sport governance (Ely and Meyerson 2000). The bifocal approach is a feminist intervention strategy focusing on individual development and organizational change. It acknowledges the critical role of developing individuals' gender insight and change agency to bring about organizational change. Moreover, the bifocal approach envisions a step-by-step journey rather than abrupt transformations. It starts with acknowledging that the organization, the athletes, and the intervention are primarily positioned within a traditional gender ideology. This is an important starting point for moving from a traditional binary gender discourse (where we are) towards a transformative discourse (where we want to go) that must acknowledge the increasing fluidity of gender. The bifocal approach has four fundamental design principles (De Vries and Van den Brink 2016):

- It involves abandoning the idea of radical interventions while at the same time being guided by the need for transformative change.
- It proposes to begin by depicting underlying assumptions and build knowledge from there.
- It suggests focusing on creating a movement toward the transformative. This means engaging with many stakeholders in building gender insight and capacity to act for change.

- It opts to maintain a focus on both individual development and organizational change.

Compared to transformative interventions (e.g., gender quota) that have failed in sports, bifocal approaches are less confrontational, have more engaged insiders, a larger group of participants, and a longer timeframe. This allows to do the transformative work less abruptly and with a higher chance to succeed.

**(3) Third Space** Common to the third space theory is disrupting binary ways of understanding gender in sport through introducing a third possibility, introduced by cultural and postcolonial theorists like Homi Bhabha (Bhabha 1994). In the third space, dealing with the contradictory logic mentioned earlier is possible without transcending or repressing that contradiction. New knowledge and cultural expressions emerge within the third space, which cannot be traced back to the first or second space but are the unique product of (cultural) hybridity (Forgasz et al. 2018). The dual focus can create both discomforts and possibilities, and therefore, Bhabha's conceptualization of the third space offers a valuable way to deal with the tensions surrounding the gender debate in sports. Third spaces can be understood and used in a conceptual as well as in a practical manner. Conceptually, the third space can encourage interdisciplinary collaborations and innovative approaches to gender management in sports. Through authentic dialogue between policymakers, sports organizations, academics, and intersex/DSD, transgender, and (non-)binary athletes, a space can be created to exchange ideas, explore new perspectives, and develop innovative solutions to gender management in sports. In parallel, it would be reasonable to imagine a sporting world where the sport is considered a social institution separated from those seeking to benefit from its externalities. The gender debate is often linked to externalities, whereas sport is not performed to make money or other externalities. It has a meaning of its own that is the basis for it being performed (Gammelsaeter 2021). Practically, binary and non-binary athletes could use third space to imagine how an inclusive sport or sporting event could look in terms of designing the physical and social spaces to be welcoming and accommodating to diverse populations. This would perhaps take the discussions beyond athlete performance to include ideas on personal growth and development, fostering social interactions, and creating a sense of community.

## References

- Bahro, Berno. Ein schweres Schicksal: Dora Ratjen. In: Berlin '36. Eds. Bahro, Berno, and Jutta Braun. Berlin: vbb Verlag für Berlin-Brandenburg, 2009, 63–98.
- Bhabha, Homi K. *The Location of Culture*. London: Routledge, 1994.
- Bermon, Stephane, and Pierre-Yves Garnier. »Serum androgen levels and their relation to performance in track and field: mass spectrometry results from 2127 observations in male and female elite athletes.« *British Journal of Sports Medicine* 51, 17 (2017), 1309–1314.
- Blithe, Sarah, and Jenna Hanchey. »The Discursive Emergence of Gendered Physiological Discrimination in Sex Verification Testing«. *Women's Studies in Communication* 38, 4, (2015), 486–506.
- Butler, Judith. *Bodies That Matter: On the Discursive Limits of Sex*. London: Routledge, 1993.
- Camporesi, Silvia, and Mike McNamee. *Bioethics, Genetics and Sport*. Routledge, 2018.
- Coalter, Fred. »Sport and Social Inclusion: Evidence-based Policy and Practice.« *Social Inclusion* 5, 2 (2017), 141–149.
- Cooky, Cheryl, Ranissa Dycus, and Shari L. Dworkin. »»What makes a woman a woman?« Versus »Our first lady of sport« a comparative analysis of the United States and the South African media coverage of Caster Semenya.« *Journal of Sport and Social Issues* 37, 1 (2013), 31–56.
- Devine, Cathy. »Female Olympians Voices: Female Sports Categories and International Olympic Committee Transgender guidelines. *International Review for the Sociology of Sport* 57, 3, 335–361.
- De Vries, Jennifer Anne, and Marieke Van Den Brink. »Transformative gender interventions: Linking theory and practice using the »bifocal approach.« *Equality, Diversity and Inclusion: An International Journal* 35, 7/8 (2016), 429–448.
- Ely, Robin J., and Debra E. Meyerson. »Theories of gender in organizations: A new approach to organizational analysis and change.« *Research in Organizational Behavior* 22 (2000), 103–151.
- Erikainen, Sonja. *Hybrids, Hermaphrodites, and Sex Metamorphoses: Gendered Anxieties and Sex Testing in Elite Sport, 1937–1968*. In: *Gender panic, gender policy*. Eds. Demos, Vasilikie, and Marcia Texler Segal. Bingley: Emerald Publishing, 2017, 155–174.



- Fletcher, Joyce K. *Disappearing acts: Gender, power, and relational practice at work*. Mit Press, 2001.
- Forgasz, Rachel, Deborah Heck, Judy Williams, Angelina Ambrosetti, and Linda-Dianne Willis. »Theorising the third space of professional experience partnerships«. *Educating future teachers: Innovative perspectives in professional experience* (2018), 33–47.
- Gammelsæter, Hallgeir. »Sport is not industry: Bringing sport back to sport management.« *European Sport Management Quarterly* 21. 2 (2021), 257–279.
- Gardiner, Simon, Jim Parry, and Simon Robinson. »Integrity and the corruption debate in sport: Where is the integrity?« *European Sport Management Quarterly* 17. 1 (2017), 6–23.
- Garfinkel, Harold. *Studies in Ethnomethodology*. Englewood Cliffs, New Jersey: Prentice-Hall, 1967.
- Harper, Joanna, María-José Martínez-Patino, Fabio Pigozzi, and Yannis Pitsiladis. »Implications of a Third Gender for Elite Sports.« *Current Sports Medicine Reports* 17, 2 (2018), 42–44.
- Heggie, Vanessa. »Testing Sex and Gender in Sports: Reinventing, Reimagining and Reconstructing Histories«. *Endeavour* 34, 4 (2010), 157–163.
- Henne, Kathryn. »The Science of Fair Play in Sport: Gender and the Politics of Testing«. *Signs: Journal of Women in Culture and Society* 39, 3 (2014), 787–812.
- Holm, Marie-Louise. *Fleshing out the self: Reimagining intersexed and trans embodied lives through (auto) biographical accounts of the past*. Linköping: University Electronic Press, 2017.
- Kihl, Lisa. A. *Corruption in sport: Causes, consequences, and reform*. Routledge, 2018.
- Knoppers, Annelies. *The Gendering of leadership in sport organisations: Post-structural perspectives*. In *Handbook of Theory in Sport Management*. Eds. Cunningham, George B., Janet S. Fink, and Alison Doherty. New York: Routledge, 2015.
- Knox, Taryn, Lynley Anderson, and Alison Heather. »Transwomen in elite sport: scientific and ethical considerations.« *Journal of Medical Ethics* 45, 6 (2019), 395–403.
- Krämer, Dennis. *Intersexualität im Sport – Mediale und medizinische Körperpolitiken*. Bielefeld: transcript, 2020.

- Krämer, Dennis. Queer Studies. In: Handbuch Körpersoziologie 1. Eds. Gugutzer, Robert, Gabriele Klein, and Michael Meuser. Wiesbaden: Springer, 2022, 395–409.
- Krämer, Dennis. »Time to Abolish Gender Boundaries in Elite Sports? A plea for Structural Reflection.« *Sport und Gesellschaft [Sport and Society]*, 20, 2 (2023), 195–206.
- Linghede, Eva. »The promise of glitching bodies in sport: a posthumanist exploration of an intersex phenomenon.« *Qualitative Research in Sport, Exercise and Health*, 10, 5 (2018), 570–584.
- Martínez-Patino, Maria-José, Eric Vilain, and Nereida Bueno-Guerra. »The unfinished race: 30 years of gender verification in sport«. *The Lancet* 388 (2016), 541–543.
- Movement Advancement Project (MAP). »USA: Identity Document Laws and Policies.« [https://www.lgbtmap.org/equality-maps/identity\\_documents/birth\\_certificate](https://www.lgbtmap.org/equality-maps/identity_documents/birth_certificate) 7 Aug. 2023.
- Newman, Joshua I. »Sport without management.« *Journal of Sport Management* 28. 6 (2014), 603–615.
- Numerato, Dino, and Simone Baglioni. »The dark side of social capital: An ethnography of sport governance.« *International Review for the Sociology of Sport* 47. 5 (2012), 594–611.
- Ogeret, Kristin Skare. »The unexpected body: From Sara Baartman to Caster Semenya.« *Journal of African Media Studies* 8, 3 (2016), 281–294.
- Patel, Seema. »Gaps in the protection of athletes gender rights in sport—a regulatory riddle.« *The International Sports Law Journal* 21. 4 (2021), 257–275.
- Pieper, Lindsay Parks. *Sex testing. Gender Policing in Women's Sports*. Urbana: University of Illinois Press, 2016.
- Prader, Andrea. *Die Intersexualität*. Zürich: Springer, 1957.
- Reid, Graeme, and Minky Worden. »Caster Semenya Won Her Case, But Not the Right to Compete Court Ruling Is a Human Rights Victory«. <https://www.hrw.org/news/2023/07/18/caster-semenya-won-her-case-not-right-compete> 2 Aug. 2023.
- Rubinstein, William D., and Patrick von Maravic. *Max Weber, Bureaucracy, and Corruption*. B. Budrich, 2010.
- Shaw, Sally, and Wendy Frisby. »Can gender equity be more equitable?: Promoting an alternative frame for sport management research, education, and practice.« *Journal of Sport Management* 20. 4 (2006), 483–509.
- Souvenir, Gema, Cleo Schyvinck, Lisa. A. Kihl, Wim Hardyns, An Vermeersch, and Annick Willem. »Fraud vulnerabilities in sport federations: The role of

- culture, leadership, and control.« *European Sport Management Quarterly* (2023), 1–24.
- Spicer, André, Mats Alvesson, and Dan Kärreman. »Critical performativity: The unfinished business of critical management studies.« *Human Relations* 62. 4 (2009). 537–560.
- Van Reeth, Daam, and Daniel Joseph Larson. *The Economics of Professional Road Cycling*. Springer, 2016.
- Wagg, Stephen; and David Andrews. *East Plays West. Sport and the Cold War*. London, New York: Routledge, 2017.
- Wonkam, Ambroise, Karen Fieggen, and Raj Ramesar. »Beyond the Caster Semenya controversy: The case of the use of genetics for gender testing in sport.« *Journal of Genetic Counseling* 19 (2010). 545–548.
- World Athletics. »Eligibility Regulations for DSD.« <https://bit.ly/43PLDCs> 2 Aug. 2023.

