

‘Machinery of Femininity Control’
The IOC, Gendered Medical Policy, and Patriarchal Oppression of
Female Athletes during the Cold War (1968-1992)



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ABSTRACT

This dissertation meticulously explores the origins, historical trajectory, and implications of gender verification testing in the Olympic Games from 1968 to 1992. Employing an interdisciplinary approach that blends queer history with sports and medical narratives, it provides a nuanced understanding of the complex interplay of political, cultural, and scientific dynamics, with a primary focus on the policies of the International Olympic Committee (IOC). The research extensively utilises primary sources, mainly letters from the IOC Historical Archives, revealing the institutional biases and entrenched patriarchal structures that shaped these policies.

The dissertation begins by examining the initial exclusion of women from the modern Olympics and their gradual, albeit limited, inclusion. It sets the stage for understanding the resistance to gender equality within sports institutions. It delves into the establishment and perpetuation of structural patriarchy within sports administration bodies such as the IOC and the International Amateur Athletic Federation (IAAF), shedding light on the barriers hindering women's access to sports and recognition.

The narrative unfolds further by exploring the discourse surrounding gender verification testing. It explores the socio-political dimensions, highlighting the Cold War-era fears of Eastern Bloc nations potentially fielding male athletes disguised as females, thus turning sports into a battleground for ideological assertion. Simultaneously, it scrutinises the introduction of mandatory testing, notably through the Barr Body test at the 1968 Mexico City Olympics, as a manifestation of shifting paradigms towards a policy intrinsically gendered, reinforcing rigid binary definitions of gender based on chromosomes.

The study also examines the discourse surrounding testing, including critiques from influential women within sports administration, ultimately concluding that these policies inadvertently perpetuated gender discrimination, with ethical considerations often overshadowed by concerns for medical accuracy. Finally, the dissertation highlights the influence of societal pressures in shaping the critique, leading to the IOC's eventual reassessment of gender verification policies at the meeting of the 1988 working group.

In conclusion, this dissertation transcends the Cold War narrative of gender verification testing, presenting it as a manifestation of entrenched patriarchal values. By advocating for the recognition and addressing of these biases, it calls for transformative reforms towards genuine gender equality in sports.

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LIST OF ABBREVIATIONS

AOA	American Olympic Association
CIO-AH	Comité International Olympique – Archives Historiques
DSM-III	Diagnostic and Statistical Manual of Mental Disorders, Third Edition
IAAF	International Amateur Athletic Federation
IOC	International Olympic Committee
IOC MC	International Olympic Committee Medical Commission
MC	Medical Commission
NOCs	National Olympic Committees
PCR	Polymerase Chain Reaction

INTRODUCTION

The exclusion of women from the inaugural modern Olympics in 1896 marked a dismal start for gender equality in sport. From 1900 to 1924, although women began to participate in various sports, the prestigious realm of athletics remained firmly closed. This barrier was broken at the 1928 Amsterdam Olympic Games, where women were finally permitted to compete in track and field events, marking a pivotal moment in the history of women's sports.¹ However, this breakthrough was tainted by restrictions, as the longest race allowed for women was a mere 800 metres.² The aftermath of the event saw an eruption of sensationalised reports highlighting women's exhaustion and unfounded fears regarding the impact on their health and reproductive organs.³ The prevailing belief that women lacked the 'competitive spirit' necessary for success at the 'highest levels' of athletics also perpetuated their marginalisation from sporting arenas.⁴ Succumbing to these exaggerated concerns, the International Olympic Committee (IOC) and the International Amateur Athletic Federation (IAAF) swiftly curtailed women's races to no longer than 200 metres between 1928 and 1960.⁵ This episode was emblematic of a recurring narrative in Olympic history, where fleeting advances for female athletes were often met with regressive setbacks, justified by claims of their physical vulnerability and weakness.

The 1960 Rome Olympics demonstrated a significant shift by reintroducing the women's 800-metre race, signalling a growing acceptance of women's endurance and capabilities.⁶ Yet, this progressive stance was once again fleeting. The subsequent Olympiad in Mexico City in 1968 marked the beginning of gender verification testing, a policy that not only limited the potential of female athletes but also intensified their marginalisation from the sporting arena. This policy basically asserted control over the definition of womanhood for over three decades.⁷ By instituting these checks, the IOC wielded significant influence over the narrative perception of the female

¹ B. Kidd, 'Olympic, Paralympic Games and human rights', in J. Williams (eds), *Routledge Handbook of the Olympic and Paralympic Games* (London, 2020), p. 338; Citation for quote in title: A. de la Chapelle, 'Letter from Albert de la Chapelle to International Olympic Committee, Madame', (9 May 1983), Comité International Olympique – Archives Historiques (CIO-AH) B-ID04-MEDIC/036, SD1, 5754.

² J. Hargreaves, 'Olympic Women: A Struggle for Recognition', in J. O'Reilly and S. K. Cahn, *Women and sports in the United States a documentary reader* (Boston, MA, 2007), p. 230.

³ *Ibid.*, p. 231.

⁴ K. Woodward, 'Gendered Bodies, Gendered Injuries' in S. Wagg and A. M. Pollock (eds), *The Palgrave Handbook of Sport, Politics and Harm* (Basingstoke, 2021), p. 213.

⁵ Hargreaves, 'Olympic Women', p. 33.

⁶ *Ibid.*

⁷ L. P. Pieper, 'Policing Womanhood: The International Olympic Committee, Sex Testing and the Maintenance of Hetero-Femininity in Sport' (PhD thesis, The Ohio State University, 2013), p. 3.

body's capabilities and achievements. This control extended beyond mere notions of fairness or maintaining a level playing field; it was a deliberate effort to create a hierarchy within athletic competition. This dissertation contends that such measures were deeply rooted in a complex narrative of entrenched patriarchy, a historic fear of Eastern Bloc female athletes who defied traditional descriptions of femininity, and an archaic medical belief in a binary understanding of sex. The 1960s were a period of profound societal change, with the rise of second-wave feminism and the intensification of the Cold War. However, this dissertation argues that these broader dynamics only served to embed patriarchal beliefs and the perceived inferiority of the female body. Consequently, the implementation of gender verification testing aimed to limit women's success, effectively creating a 'B' competition that conformed to the IOC's narrow definition of athletic femininity. In this envisioned landscape, neither men nor strong, successful women were permitted to compete in this lower category. As Kath Woodward argued, 'sport remains largely divided into men's and women's competitions, with the agenda mainly being set by the yardstick of men's sport and men's bodies'.⁸ Using this framework to examine gender verification testing reveals it was a patriarchal mechanism designed to reinforce the IOC's use of sport to champion masculinity and assert male dominance.

Understanding the timeline of Olympic policy regarding gender verification testing is paramount for a comprehensive grasp of its stagnant progress and its misalignment with scientific and gender developments in the late 20th century. In 1936 discussions emerged regarding the eligibility of individuals competing in the female category. Correspondence sent to Avery Brundage, then-President of the American Olympic Association (AOA), compelled him to write to Count Henri de Baillet-Latour, then-President of the IOC, expressing concerns about the 'eligibility of various female (?) athletes in several sports' due to 'apparent characteristics of the opposite sex'.⁹ Notably, the American press of that era cast a keen eye on British athlete Mary Weston.¹⁰ Assigned female at birth and raised as a girl, Weston was a national champion in javelin, discus, and shot-put, and finished sixth in the two-handed shot put at the 1926 Women's World Games.¹¹ In May 1936, Weston underwent a series of corrective surgeries at Charing Cross Hospital, described by one

⁸ Woodward, 'Gendered Bodies', p. 215.

⁹ A. Brundage, 'Letter from Avery Brundage to Count Henri de Baillet-Latour', (23 June 1936), CIO-AH B-ID04-MEDIC/035, SD1, 8457.

¹⁰ M. Watman, 'Women athletes between the world wars (act. 1919–1939)', *Oxford Dictionary of National Biography*, (Oxford, May 2012), <https://www.oxforddnb.com/display/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-103699>, (3 Sept. 2023); S. Erikainen, 'The Story of Mark Weston: Re-centring Histories and Conceptualising Gender Variance in 1930s International Sport', *Gender & History*, 32/2 (2020), pp. 304-319.

¹¹ L. P. Pieper, *Sex Testing: Gender Policing in Women's Sports* (Urbana, IL, 2016), p. 31.

newspaper as a ‘metamorphosis’.¹² Subsequently, Weston adopted the name Mark and retired from athletic competitions. Initiating a consequential and enduring debate within sports policy throughout the latter half of the 20th century, Brundage concluded by urging Baillet-Latour, ‘Perhaps some action has already been taken on this subject; if not, it might be well to insist on a medical examination before participation in the Olympic Games’.¹³ Considering the perspectives outlined above, it is unsurprising that Brundage, during his tenure as IOC President from 1952 to 1972, oversaw the implementation of the inaugural mandatory gender verification testing at the Olympic Games. The genesis of the issue can be traced to the 25th meeting of the Congress of World Athletes in Budapest in 1966, during which the IAAF first broached the subject.¹⁴ The subsequent European Championships witnessed a controversial turn when female participants were subjected to ‘physical inspection’ and 243 athletes paraded in front of a panel of female doctors.¹⁵ However, many already deemed this approach unacceptable on both human and ethical grounds.¹⁶

Nevertheless, the momentum continued into the 1967 Pan-American Games in Canada, where physical inspection was again employed.¹⁷ However, authorities started to question the viability of these methods, recognising the growing consensus that such testing constituted discriminatory practices against women.¹⁸ At the higher echelons of the IOC, the matter of gender verification testing entered the spotlight during the 65th meeting in Tehran in May 1967.¹⁹ This meeting paved the way for the trialling of testing at the 1968 Winter Games in Grenoble.²⁰ The process involved a lottery system (random selection process) for choosing athletes to undergo the Barr Body test, which entailed screening cells obtained from the inner lining of the cheek (buccal mucosa) for microscopic examination to ascertain the presence or absence of Barr bodies within cell nuclei.²¹ Although history has incorrectly associated the IOC with visual testing, archival analysis finds no direct evidence of a visual test at an Olympic Games.²² The IOC was, however, actively engaged

¹² ‘Girl Who Became Man Tells of Metamorphosis’, *Reading Eagle*, no. 122 (28 May 1936), p. 5 col. d.

¹³ A. Brundage, ‘Letter from Avery Brundage to Count Henri de Baillet-Latour’, (23 June 1936), CIO-AH B-ID04-MEDIC/035, SD1, 8457.

¹⁴ A. Ljungqvist, ‘Historical Perspective of Gender Verification’, (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

¹⁵ *Ibid.*

¹⁶ Pieper, *Sex Testing*, p. 52.

¹⁷ A. Ljungqvist, ‘Historical Perspective of Gender Verification’, (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

¹⁸ *Ibid.*

¹⁹ ‘Minutes 65th Session Tehran’, (3-9 May 1967), p. 13, CIO-AH B-ID04-MEDIC.

²⁰ V. Heggie, ‘Testing sex and gender in sports; reinventing, reimagining and reconstructing histories’, *Endeavour*, 34/4 (2010), pp. 160.

²¹ *Ibid.*

²² P. Donnelly and M. K., Donnelly, ‘Sex Testing, Naked Inspections and the Olympic Games – A Correction to: The London 2012 Olympics – A Gender Equality Audit’ (Research Report, Centre for Sport Policy Studies, Faculty of Kinesiology and Physical Education, University of Toronto, 2013), p. 5.

in conversations with the IAAF regarding visual testing, with many medical advisors serving on both boards.²³

Within the realm of gender verification testing in sports, the Barr Body test has played a historic role in scrutinising chromosomal patterns to determine an athlete's biological sex. Barr bodies, characterised as small, inactive, and dark-staining structures within cell nuclei, signify the inactivation of one of the X chromosomes in females.²⁴ The test operates on the premise that individuals with two X chromosomes (XX) typically exhibit one Barr body per cell, reflecting the random inactivation of one X chromosome in each cell.²⁵ Conversely, individuals with a single X chromosome (XY), males, generally lack Barr bodies.

Y chromatin testing, in tandem with Barr body tests, was employed to discern the sex chromosome composition. A positive result for Barr bodies and a negative for Y chromatin would indicate a classification aligned with 'normal women', and conversely, a Barr body-negative and Y chromatin-positive outcome would suggest classification as 'normal men'.²⁶

Following the groundbreaking introduction of the Barr Body Test in 1968, numerous international sports organisations swiftly adopted analogous procedures, heralding a paradigmatic change in gender verification within elite sports. The scientific terminology defined the presence of a Barr body as indicative of the female sex and Y chromatin to indicate the male sex. This transformative evolution in gender verification in sports departed from an initial reliance on external physical characteristics and secondary sexual traits, moving towards a belief system that prioritised chromosomes and genetic determinism, thereby reinforcing a binary conception of gender.

Nevertheless, the 1960s and 1970s were also characterised by an increasing sensitivity towards ethical considerations. As the discourse on gender verification gained momentum, a heightened awareness emerged regarding the imperative to uphold athletes' privacy and respect. Escalating concerns that testing was harming participants, coupled with apprehensions regarding those

²³ Donnelly and Donnelly, 'Sex Testing', p.5.

²⁴ N. Q. Ha, 'Diagnosing Sex Chromatin', *Historical Studies in the Natural Sciences*, 45/1 (2015), p. 81.

²⁵ *Ibid.*

²⁶ K. G. Wurster, 'Remarks on the Question of Gender Verification in Top Level Sport Today', (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

organisations vested with the power to issue ‘femininity certificates’ post the Montreal Games, prompted the IOC to convene its first International Conference on Women in Sport in 1976.²⁷

During the 1980s, the scientific aspects of gender verification testing assumed a more prominent position in criticism, extending beyond ethical considerations related to its invasive nature.²⁸ The limitations and inconsistencies of chromatin testing became increasingly evident, sparking heightened concerns about its accuracy. In an article in the *Journal of the American Medical Association* in October 1986, Professor Albert de la Chapelle, a Finnish human geneticist based in Helsinki as Chairman of the University of Helsinki’s Department of Medical Genetics, advocated for the elimination of current sex chromatin screening tests in female sports due to evidence of inaccuracies and discrimination.²⁹ Thus, during this period, focus shifted towards the precision of testing rather than solely moral considerations. Notable instances, such as the establishment of the gender verification working group led by Professors de la Chapelle and Hay in 1988, emphasised the pressing need for reassessment.

A turning point in the history of gender testing came in February 1992 at the Albertville Olympic Winter Games with the introduction of Polymerase Chain Reaction (PCR) testing, revolutionising gender verification in sports.³⁰ PCR, a molecular biology technique, amplified and analysed specific DNA sequences related to sex determination, in particular, the Y-chromosome.³¹ The adoption of PCR testing symbolised a paradigm shift away from the visual examination of cells in the Barr Body test, acknowledging its flaws.

This dissertation will critically scrutinise the ethical and scientific dimensions of this testing trajectory between 1968 and 1992, unveiling the intricacies and controversies that defined its evolution. The misalignment with the evolving understanding of gender and athlete rights in the late twentieth century will be demonstrated through a comprehensive exploration of the historical record, incorporating quotes from relevant communications to, from, and within the IOC. This

²⁷ M. Polley, ‘Ferris, Elizabeth Anne Esther [Liz] (1940-2012)’, *Oxford Dictionary of National Biography*, (Oxford, Jan. 2016), <https://www.oxforddnb.com/display/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-104948>, (3 Sept. 2023); A. de Mérode, ‘Femininity Control – 1976 Olympic Games – Montreal’, (9 Sept. 1976), CIO-AH B-ID04-MEDIC/035, SD2.

²⁸ ‘Sexing of Female Athletes’, *Lancet*, 330/8560 (1987), pp. 667-668.

²⁹ A. de la Chapelle, ‘The Use and Misuse of Sex Chromatin Screening for Gender Identification of Female Athletes’, *Journal of American Medical Association*, 256/14 (1986), pp. 1920-1923.

³⁰ E. Hay, ‘Professor Eduardo Hay to S. E. Marques de Samaranch’, (n.d.), CIO-AH B-ID04-MEDIC/037, SD1.

³¹ A. Serrat and A. G. de Herreros, ‘Gender verification in sports by PCR amplification of SRY and DYZ1 Y chromosome specific sequences: presence of DYZ1 repeat in female athletes’, *British Journal of Sports Medicine*, 30/4 (1996), pp. 310-2.

examination will expose the structural and cultural patriarchy embedded in the IOC, highlighting how entrenched biases influenced policy decisions and perpetuated gender inequality within the organisation.

Three pivotal inquiries will illuminate the ethical and scientific dimensions of this testing trajectory. They will delve into the narratives of the Cold War, second-wave feminism and evolving medical paradigms, and societal interaction with the isolated institutions of the sporting world. Firstly, the historical context of the Cold War enhanced the already existing structural patriarchy in international sports. Amidst concerns of Eastern Bloc nations possibly sending male athletes disguised as females, there arose a prevailing atmosphere of distrust and marginalisation towards female athletes. Linda Boorish, in her 1996 commentary, illuminated these notions, emphasising the Olympics' role as a cultural influencer that both mirrored and shaped gender ideologies.³² She ultimately posited that the inclusion and exclusion of women were intricately linked to overarching societal and structural norms and expectations.³³ Secondly, this era witnessed significant medical progress, coinciding with the impact of the post-human turn alongside second-wave feminism. The post-human discourse, particularly regarding gender, gained traction in the latter half of the twentieth century, notably after the 1960s, amidst profound scientific and technological advancements in medicine and biotechnology.³⁴ A seminal argument in this discourse arose from Donna Haraway's *A Cyborg Manifesto*, which proposed that society was undergoing a radical destabilisation of the line between human, animal, and machine, thereby confronting entrenched gender norms.³⁵ The coexistence of this movement with advancements in gender and sex ideologies from second-wave feminism, juxtaposed against the IOC's reluctance to acknowledge these progressions, highlights the organisation's effort to retain antiquated notions of a binary understanding of sex. This resistance was evidenced by Neil Carter's analysis that:

While the subject of gender testing is a relatively extreme example which has recurred intermittently throughout the twentieth century, it has reflected not only how the bodies of women continued to be politicized within sport but also that the relationship between female athletes and medicine continued to perpetuate wider discourses regarding the role of women in society.³⁶

Finally, this dissertation delves into the last of Carter's conclusions, exploring the societal impact of testing and how society interacted with gender verification. It argues that this issue did not exist

³² L. J. Boorish, 'Women at the Modern Olympic Games: An Interdisciplinary Look at American Culture', *Quest*, 48/1 (1996), pp. 43-56.

³³ *Ibid.*

³⁴ S. McCracken, 'Cyborg Fictions: The Cultural Logic of Posthumanism', *Socialist Register*, 33/1 (1977), pp. 288-231.

³⁵ D. J. Haraway, *Manifestly Haraway* (Minneapolis, MN, 2016), p. 10.

³⁶ N. Carter, *Medicine, Sport and the Body: A Historical Perspective* (London, 2014), p. 151.

in isolation; rather, societal pressure and activism eventually drove the IOC to reassess its policies. Public discourse and evolving perceptions of gender roles made the existing regulations untenable. By scrutinising these three pivotal themes, this dissertation aims to provide a comprehensive understanding of the IOC's approach to gender verification testing from 1968 to 1992, revealing the underlying patriarchal mechanisms that sought to police and constrain female success in sports.

Previous scholarship has often neglected to consider sport as a valuable lens through which to explore the past. While its ties to the Cold War narrative, where the Olympics served as a symbolic battleground, have been acknowledged, the potential of sport to shed light on the history of gender and medicine has been largely overlooked. Ultimately, it is the interplay of these historical threads that elucidates the intricate narrative of gender verification testing. This narrative challenges the notion of a singular storyline, underscoring the combined influence of political pressures, societal advancements, and medical progress. Together, these forces shaped the landscape within Olympic House, the IOC headquarters in Lausanne, Switzerland, leading to the imposition of chromosome testing for twenty-four years.

The historiography of sports history has evolved significantly over time, marked by shifts in methodology and theoretical approaches. Mike Cronin's critique in 2007, labelling sports historians as mere 'fans with typewriters', highlighted a need for deeper engagement with contemporary historical developments.³⁷ Susan Cahn's seminal work, 'Coming on Strong', published in 1994, introduced a theoretically grounded approach to sports history.³⁸ While Cahn's emphasis was primarily on women's sports, her work sparked a broader re-evaluation of the cultural construction of gender and sexuality in twentieth-century US sports.³⁹ This shift in methodology towards cultural paradigms spurred a reformation in the practice of sports history, with scholars increasingly analysing the meaning of sporting endeavours within broader cultural contexts.

In exploring the Cold War context of sports, Elizabeth Redihan's work proved central, highlighting the role of the Olympic arena as a 'proxy battleground'.⁴⁰ This narrative was supported by scholars who often framed their analysis within an 'East vs. West' paradigm, shedding light on Western apprehensions regarding formidable Eastern European female athletes of the era. Indeed, Ian

³⁷ Mike Cronin's comments on the field appeared on the SPORHIST internet list, 23 Oct. 2007, cited in S. W. Pope and J. Nauright, *Routledge Companion to Sports History* (New York, 2010), p. 5.

³⁸ S. Cahn, *Coming On Strong: Gender and Sexuality in Women's Sport* (Chicago, 2015).

³⁹ *Ibid.*

⁴⁰ E. Redihan, *The Olympics and the Cold War, 1948-1968: Sport as Battleground in the U.S.-Soviet Rivalry* (Jefferson, NC, 2017), p. 3.

Ritchie's research primarily focused on the implementation of sex testing as a response to the emergence of muscular female athletes, while Claire Sullivan delves into the Cold War origins of IOC policies, highlighting the influence of nationalism and anti-communist sentiment.⁴¹ Similarly, Alison Wrynn's exploration probes into how international tensions shaped the decisions of the IOC Medical Commission, addressing issues such as altitude physiology and drug testing.⁴² Furthermore, studies by Rob Beamish, Ian Ritchie, and Stefan Wiederkehr uncover public attitudes during the Cold War.⁴³ They revealed Western concerns over sex/gender transgressions and anxieties surrounding gender equality.⁴⁴ These collective inquiries underscore the intricate interplay between political tensions and sporting regulations during this volatile period.

With regard to gender history, feminist perspectives have played a vital role in challenging traditional binary notions of gender within sports history. Scholars such as Sylvain Ferez and Laura Wackwitz have focused on how sporting events, particularly the Olympics, perpetuated and reinforced sex/gender differences.⁴⁵ They have highlighted how these events often strengthened notions of a binary understanding of sex and gender expectations. Additionally, researchers such as Amanda Nicole Schweinbenz and Alexandria Cronk have explored how sports perpetuated physical differences between men and women, further reinforcing gender stereotypes.⁴⁶ Furthermore, the case study of Caster Semenya, analysed by April Vannini and Barbara Fornssler, has brought attention to the need for challenging binary sex/gender systems in sports.⁴⁷ This case underscores the complexities and inequalities present within sporting regulations and highlights the importance of advocating for inclusivity and fairness. While feminist perspectives have significantly contributed to contemporary discussions on gender in sport, there remains a need for

⁴¹ I. Ritchie, 'Sex Tested, Gender Verified: Controlling Female Sexuality in the Age of Containment', *Sport History Review*, 34/1 (2003), pp. 80-98; C. Sullivan, 'Gender Verification and Gender Policies in Elite Sport: Eligibility and "Fair Play"', *Journal of Sport & Social Issues*, 35/4 (2011), pp. 400-419.

⁴² A. Wrynn, 'The Human Factor: Science, Medicine, and the International Olympic Committee, 1900-70', *Sport in Society*, 7/2 (2004), pp. 211-231.

⁴³ R. Beamish and I. Ritchie, *Fastest, Highest, Strongest: A Critique of High-Performance Sport* (New York City, NY, 2006); S. Wiederkehr, "'We Shall Never Know the Exact Number of Men who Have Competed in the Olympics Posing as Women': Sport, Gender Verification and the Cold War", *The International Journal of the History of Sport*, 23/7 (2006), pp. 1152-1172.

⁴⁴ *Ibid.*

⁴⁵ S. Ferez, 'From Women's Exclusion to Gender Institution: A Brief History of the Sexual Categorisation Process within Sport', *The International Journal of the History of Sport*, 29/2 (2012), pp. 272-285; L. A. Wackwitz, 'Verifying the Myth: Olympic Sex Testing and the Category of "Woman"', *Women's Studies International Forum*, 26/6 (2003), pp. 553-560.

⁴⁶ A. N. Schweinbenz and A. Cronk, 'Femininity Control at the Olympic Games', *Third Space: A Journal of Feminist Theory & Culture*, 9/2 (2010), pp. 1-17.

⁴⁷ A. Vannini and B. Fornssler, 'Girl, Interrupted: Interpreting Semenya's Body, Gender Verification Testing, and Public Discourse', *Cultural Studies ↔ Critical Methodologies*, 11/3 (2011), pp. 243-257.

greater consideration of contextual issues and intersectional analyses within this framework to fully understand the complexities of gender dynamics in sport.

In the realm of medical histories related to sex testing, scholars such as James L. Rupert and Claudia Wiesemann explored the evolution of sex testing methods and the medical implications of gender verification.⁴⁸ Their work not only outlines the technical advancements and procedures involved in sex testing but also explores the broader medical and ethical considerations surrounding these practices. Additionally, researchers such as K. N. Ballantyne, M. Kayser, and J. A. Grootegoed have provided insights into the consequences faced by female athletes who failed sex tests due to biological abnormalities.⁴⁹ By examining specific cases and their outcomes, they shed light on the complexities and challenges inherent in sex testing procedures. However, while these medical histories offer valuable insights into the limitations of sex testing technologies, there remains a notable gap in connecting these findings to broader historical contexts. Further research is needed to bridge this divide and provide a more comprehensive understanding of the societal, cultural, and political factors influencing the development and implementation of sex testing in sports.

The current historiography on sports history, Cold War sports, gender and sports, and medicine and sports offers valuable insights into the complexities and profound implications of gender verification testing in sports. Nevertheless, a pressing need persists for more robust interdisciplinary research that not only integrates these diverse perspectives but also delves deeper into the broader socio-political contexts shaping the landscape of sporting events. This call for a more comprehensive approach is crucial in unravelling the multifaceted dynamics at play and elucidating the full extent of the societal, cultural, and political influences on gender verification practices in sports.

For this research, archival materials from the IOC Historical Archives in Lausanne, Switzerland, played a central role.⁵⁰ These materials included physical letters exchanged between key doctors, members of the public, and the IOC institution, providing insights into the discourse surrounding gender verification testing during the Cold War era. Additionally, the research examined meeting

⁴⁸ J. L. Rupert, 'Genitals to Genes: The History and Biology of Gender Verification in the Olympics', *Canadian Bulletin of Medical History*, 28/2 (2011), pp. 339-365; C. Wiesemann, 'Is There a Right Not to Know One's Sex? The Ethics of "Gender Verification" in Women's Sports Competition', *Journal of Medical Ethics*, 37/4 (2011), pp. 216-220.

⁴⁹ K.N. Ballantyne, M. Kayser and J.A. Grootegoed, 'Sex and Gender Issues in Competitive Sports: Investigation of a Historical Case Leads to a New Viewpoint', *British Journal of Sports Medicine*, 46/8 (2011), pp. 614-617.

⁵⁰ IOC Historical Archives, CIO-AH B-ID04-MEDIC.

notes of various IOC Commissions, particularly the Medical Commission, and executive board meeting notes, which had been digitised. The archive also granted access to medical journals from the period, enriching the contextual understanding. It is noteworthy that the thirty-year rule significantly shaped the primary nature of the research. Access was restricted to data up to 1992, thereby confining the scope of this dissertation to Barr Body testing and excluding minutes of IOC Medical Commission meetings on the discourse surrounding PCR or hormone assays, as these occurred after 1992. Through this top-down analysis, the research highlights how the IOC, as a significant institutional structure, wielded influence in creating and enforcing Cold War Western gender norms through the practice of sex testing and gender verification, thus perpetuating a patriarchal framework. These sources were complemented by contemporary newspaper articles, which offered insights into the social impact of these institutional and medical decisions.

In interpreting these primary sources, two distinct historical lenses were employed: queer history and an integrated perspective combining the histories of sports and medicine. This study's incorporation of queer history, particularly through a transgender lens inspired by the work of Susan Stryker, sets it apart within the field of gender verification studies.⁵¹ This approach offers a critical framework for understanding the complexities of gender and sexuality in the realms of sports and medicine during the Cold War era. By analysing the construction and enforcement of gender norms, especially through sex testing and gender verification practices, queer history provides valuable insights into the lived experiences of individuals whose identities and bodies were scrutinised and policed by institutional structures such as the IOC.⁵²

Moreover, the integration of sport and science history facilitated a nuanced analysis of the interplay between scientific advancements, sporting practices, and socio-political ideologies. This approach enabled an exploration of how scientific discourses and technologies intersected with broader cultural and political forces to shape the development and implementation of sex testing protocols within the realm of international sports. By synthesising these two historical lenses, the research

⁵¹ S. Stryker, *Transgender History* (Berkeley, CA, 2008).

⁵² S. Cahn, 'From the "Muscle Moll" to the "Butch" Ballplayer: Mannishness, Lesbianism, and Homophobia in U.S. Women's Sport', *Feminist Studies*, 19/2 (1993), pp. 343-368; J. Halberstam, *Female Masculinity* (Durham, 2018); K. Heyman, *Before We Were Trans: A New History of Gender* (New York City, 2022); M. A. Messner, 'Sports and Male Domination: The Female Athlete as Contested Ideological Terrain', *Sociology of Sport Journal*, 5/3 (1988), pp. 197-211; P. G. Mewett, 'Conspiring to Run: Women, their Bodies and Athletics Training', *International Review for the Sociology of Sport*, 38/3 (2003), pp. 331-349; F. Skillen, 'It's possible to play the game marvellously and at the same time look pretty and be perfectly fit', *Costume*, 46/2 (2013), pp. 165-179.

aimed to provide a comprehensive understanding of the historical dynamics surrounding gender verification testing during the Cold War era.

These primary sources demand meticulous scrutiny for their reliability, authenticity, and inherent biases. IOC letters furnish invaluable firsthand testimonies, illuminating the discourse surrounding gender verification testing during the Cold War era. However, drawing substantive conclusions from these sources demands a critical examination of the motives and viewpoints of the involved parties, alongside an awareness of potential biases or agendas that may have influenced the contents of these letters. Similarly, rigorously evaluating the veracity of contemporary journal articles entails grounding assessments in criteria such as peer review, publication credibility, and the scholarly expertise of the authors. While such articles provide significant insights into the contemporary medical discourses on gender and sports, it remains paramount to contextualise them within the prevailing scientific paradigms and societal norms of the period. Moreover, the reliability of commission meeting notes hinges on factors encompassing the precision of transcription, the comprehensiveness of the records, and the transparency inherent in the decision-making process. In summation, while these primary sources afford invaluable insights into the historical backdrop of gender verification testing in sports, a vigilant and critical approach is essential to discern their limitations and potential biases.

The dissertation is structured into three distinct chapters, each examining crucial aspects of the historical context and societal implications surrounding gender verification testing in sports. The first chapter, 'The Blueprints for a Structural Patriarchy', examines the historical events leading up to 1968, shedding light on the foundational elements that facilitated the creation of patriarchal structures within the realm of international sports, such as the Medical Commission. This chapter critically analyses the Cold War dynamics and the prevalent fear of Eastern European success, which served as catalysts for perpetuating gender biases and reinforcing strict gender norms. Moreover, it explores narratives such as the dehumanisation of the body through the athlete-soldier paradigm, providing a comprehensive understanding of the socio-political landscape that shaped the discourse on gender verification testing.

In the second chapter, 'Medicine's Gaze: Post-Human Turn and Second-Wave Feminism', the research adopts a medical lens to scrutinise the post-human turn and second-wave feminism, probing into their potential liberating effects on notions of binary sex. However, contrary to expectations, this chapter unveils how these movements inadvertently prompted the IOC to adopt

stricter measures, ultimately leading to the enforcement of the Barr Body Test. By dissecting the intersection of medical advancements, feminist ideologies, and sporting regulations, this chapter elucidates the complexities underlying the IOC's response to evolving notions of gender and sexuality.

The third chapter, 'Society's Critique: From Diagnostic Language to Women's Rights', moves the focus back to society, examining the diverse array of historical actors who criticised the IOC for its discriminatory practices against women in sports. This chapter meticulously traces the evolution of these critiques, highlighting how societal shifts influenced the language and strategies employed by critics. By analysing the adaptation of diagnostic language and the formalisation of discourse surrounding women's rights, this chapter underscores the multifaceted nature of societal engagement with gender verification testing. Furthermore, it explains how these societal critiques evolved over time, gaining populist support and ultimately influencing policy changes within the IOC.

This dissertation will present the argument that the narrative surrounding gender verification testing emerged as far more nuanced than a mere Cold War tale. While Cold War pressures undeniably exerted significant influence, reducing it solely to this overlooks the deeper, entrenched patriarchal views ingrained within the fabric of sports. Gender verification testing did not just respond to external threats; it epitomised the longstanding desire to limit women's success and assert control over traditional feminine norms and bodies. Without the Cold War context or the perceived threat to the binary understanding of sex, the IOC might not have resorted to such extreme measures. However, delving into these layers reveals how systemic and cultural patriarchy, rooted in antiquated notions of female physical fragility and the perceived need to protect their reproductive organs, permeated every aspect of testing and the institutions that implemented it. Therefore, gender verification was not merely a medical or political concern but a manifestation of deeply ingrained gender biases within the sporting realm, perpetuating a patriarchal agenda at its core.

CHAPTER 1 – COLD WAR FOUNDATIONS:

THE BLUEPRINTS OF A STRUCTURAL PATRIARCHY

Behind the veneer of the Olympic Games' seemingly noble pursuit of fair play lay a concealed, more contentious narrative: the pervasive patriarchal grip set to limit women's achievements in sport. This chapter explores the historical context of Cold War sport to uncover the structural underpinnings of this gendered power dynamic, demonstrating how the introduction of chromosomal testing for gender verification at the 1968 Mexico City Olympic Games was not merely an isolated event but rather an inevitable outcome of entrenched patriarchal structures.

Traditionally, the narrative woven by historians has painted this pivotal moment with broad political strokes, attributing it to Cold War tensions and the fear of Eastern Bloc dominance in women's sports, symbolising the triumph of communism over capitalism.¹ However, this dissertation challenges these overly simplistic interpretations and uncovers a far more sinister truth. Behind the façade of fair play, the IOC and other patriarchal entities were not guardians of equality but rather architects of oppression.

Indeed, the decision to subject female athletes to scrutiny while sparing their male counterparts was not merely a matter of politics; it was deeply entrenched in gender bias. As women began to carve out greater opportunities and achieve heretofore unseen success in sports, they challenged the entrenched patriarchal notions of male strength versus female weakness upheld by organising bodies such as the IOC. These organisations designed their policies to preserve male dominance in the athletic realm by stifling the burgeoning success, progress, and potential advancements of female athletes.

Truly grasping how the IOC and similar sporting bodies, such as the IAAF, engineered mechanisms to exert patriarchal dominance over female participation in sport necessitates delving into the historical context that enabled this policy. In a letter addressed to IOC President Juan Antonio Samaranch in 1992, Professor Eduardo Hay offered invaluable insight.² Serving as a Professor of Gynaecology and Obstetrics at the National University of Mexico, an IOC member,

¹ S. Wiederkehr, "We Shall Never Know the Exact Number of Men who Have Competed in the Olympics Posing as Women": Sport, Gender Verification and the Cold War', *The International Journal of the History of Sport*, 23/7 (2006), pp. 1152-1172.

² E. Hay, 'Professor Eduardo Hay to S. E. Marques de Samaranch', (n.d.), CIO-AH B-ID04-MEDIC/037, SD1.

and Chief of Protocol for the 1968 Olympic Games in Mexico City – the first Olympiad to use chromosomal testing – Professor Hay wielded considerable influence within the Committee. From 1968 onwards, his support for chromosomal testing extended beyond his official roles. He frequently engaged with the IOC, consulting and corresponding with fellow medical professionals to articulate and defend the organisation’s stance on chromosomal testing. He specifically invoked concepts of fair play and the safeguarding of ‘normal’ women from ‘abnormal’ genetic conditions, aligning with the trend in this period for doctors to categorise and define bodies. In his 1992 letter to Samaranch, Professor Hay highlighted that in the aftermath of World War II, Olympism’s ascent became intricately intertwined with political significance, propaganda, and commercialisation.³ Within this milieu, Professor Hay posited that illicit and perilous practices emerged, driven by the singular goal of securing victories regardless of the toll on athletes.⁴ He believed that these practices encompassed doping and the participation of male athletes in events designated exclusively for women.⁵ Consequently, one could infer that the IOC’s introduction of medical policy aimed to uphold the principles of fair play.

However, Professor Hay’s retrospective use of the fair play justification overlooked both the gendered aspect of this narrative and a crucial facet of Cold War nations’ utilisation of sport as a form of political soft power: the dehumanisation of athletes, reducing them to mere pawns in the ‘proxy battleground’ of the Olympic Arena.⁶

Allen Guttman argued, in his 1988 article, that from Helsinki in 1952 to Montreal in 1976, the Games were ‘a continuation of politics by other means’.⁷ However, this dissertation extends the argument beyond 1976, as evidenced by the ‘tit-for-tat’ protests between the USA and the USSR during the 1980 Moscow and 1984 Los Angeles Olympic Games, respectively.⁸ Indeed, politics has been ingrained in the Olympic Games since its inception. US pentathlete Jane Frederick encapsulated this sentiment in 1980, stating, ‘whichever way it goes this time, I must accept the inescapable conclusion: I am a pawn’.⁹ Frederick’s remark epitomised the dehumanisation of athletes, reducing them to mere cogs in the Olympic machine.

³ E. Hay, ‘Professor Eduardo Hay to S. E. Marques de Samaranch’, (n.d.), p. 1, CIO-AH B-ID04-MEDIC/037, SD1.

⁴ *Ibid.*

⁵ *Ibid.*

⁶ E. Redihan, *The Olympics and the Cold War, 1948-1968: Sport as Battleground in the U.S.-Soviet Rivalry* (Jefferson, NC, 2017), p. 3.

⁷ A. Guttman, ‘The Cold War and the Olympics’, *International Journal*, 43/4 (1988), pp. 558.

⁸ *Ibid.*, p. 565.

⁹ K. Moore, ‘The “pawns” make a move’, *Sports Illustrated* (4 Feb. 1980), p. 22.

During the Cold War, the already politicised Olympic Games became a platform for cultural competition between communism and capitalism. As the Olympics transformed into arenas for ‘symbolic warfare’ between Soviet and American athletes, each victory or defeat was perceived as a testament to both ideological and national strength.¹⁰ Governments, officials, and sports coaches often went to extraordinary lengths to secure gold medals in the quest for national glory, frequently at the expense of athletes’ well-being. Allegations surfaced, particularly against Eastern European coaches, suggesting coercion of athletes into taking performance-enhancing drugs or even entering male athletes in female events to bolster medal counts.¹¹

Viewed through the prism of medical history, particularly theories of the development of public health policy for nations at war, these athletes were regarded as invaluable resources. This theory posited that during wartime, governments deemed the populace, especially soldiers, as indispensable assets, underscoring the importance of their well-being and often spurring the adoption of new health strategies.¹² For instance, Richard Titmuss argued that British social reform often emerged during periods of conflict, exemplified by the reforms following the Boer War (1899-1902) and the establishment of the National Health Service after World War II.¹³

The Cold War was no different. At the core of the Olympics lay Pierre de Coubertin’s late nineteenth-century advocacy for internationalism through national sporting competitions.¹⁴ These principles experienced a resurgence during the Cold War era, with the Olympics reigniting fervent nationalism as nations on both sides of the Iron Curtain measured their strength against each other through the ‘barometer’ of the Games.¹⁵ As Toby Rider observed:

Almost from the very start, athletes were required to compete at the games for a nation and had to be members of a national Olympic committee. Olympic stadiums of the time were festooned, and still are, with national flags and patriotic symbolism.¹⁶

Amidst this political climate, these concepts of public health intersected with intensified notions of Olympism and nationalism, giving rise to a unique archetype to invest in and develop: the

¹⁰ S. Wagg and D. L. Andrews, ‘Introduction: War minus the Shooting’, in S. Wagg and D. L. Andrews (eds), *East Plays West: Sport and the Cold War* (New York City, NY, 2007), p. 2, 4; T. C. Rider, *Cold War Games: Propaganda, the Olympics, and U.S. Foreign Policy* (Champaign, IL, 2016), p. 6.

¹¹ A. de Mérode, ‘Letter from Prince Alexandre de Mérode to Professor Albert de la Chapelle’, (14 July 1987), CIO-AH B-ID04-MEDIC/036 SD2, 4237/87/sja.

¹² R. M. Titmuss, *Problems of Social Policy* (Basingstoke, 2002).

¹³ *Ibid.*

¹⁴ Rider, *Cold War Games*, p. 32.

¹⁵ *Ibid.*; B. Houlihan, ‘International Politics and Olympic Governance’, in K. Young and K. B. Wamsley (eds), *Global Olympics: Historical and Sociological Studies of the Modern Games* (Amsterdam, 2005), pp. 127–142.

¹⁶ Rider, *Cold War Games*, p. 32.

athlete-soldier. Muscles replaced guns as symbols of strength and prowess, and governments financed sports like never before. For example, premier Soviet athletes received extensive state support and frequently assumed military or police roles.¹⁷ Their victories were not merely celebrated as demonstrations of physical prowess but also revered as symbols of ideological superiority in the struggle between communism and capitalism.

To increase their competitive advantage at the Olympic Games, nations had several options: train women more intensively than ever before, as they were a largely untapped resource in sports; enter men into female categories; or enhance the performance of both men and women with the use of anabolic steroids, such as testosterone. Each of these scenarios posed grave threats to the IOC and its utilisation of sport as a bastion of masculinity and patriarchal authority. The remarkable achievements of women, driven by increased investment in sports as a means of wielding soft power during the Cold War, were thus viewed as a considerable threat, sparking deep-seated anxieties.

Indeed, rumours began to circulate about the extreme measures nations were willing to take to gain an edge in Olympic competition, making matters only worse. For instance, Prince Alexandre de Mérode, Chairman of the International Olympic Committee Medical Commission (IOC MC), recounted the atmosphere during the 1960 Rome Olympics whereby:

incessant denunciations ... [had] their origin in the Olympic village, accompanied by persistent rumours widely echoed by the media, ... besmirching sport and the reputation of the persons concerned. Without the least proof, serious accusations were made concerning human beings whose fundamental rights were made a mockery of.¹⁸

Similarly, Professor Hay's aforementioned 1992 letter to Samaranch shed light on how the sports media frequently broached these issues in the 1950s and 1960s. Reports suggested that men had even participated in female categories at the 1960 Rome Olympics.¹⁹ Shockingly, one American newspaper went as far as referring to Soviet athletes Irina and Tamara Press as the 'Press Brothers' instead of sisters.²⁰ These instances underscore the extent to which unsubstantiated rumours and media speculation tarnished the integrity of competitions, casting doubt on the legitimacy of athletes and compromising the history of the Olympics.

¹⁷ Guttman, 'The Cold War'.

¹⁸ A. de Mérode, 'Letter from Prince Alexandre de Mérode to Professor Albert de la Chapelle', (14 July 1987), CIO-AH B-ID04-MEDIC/036, SD2, 4237/87/sja.

¹⁹ E. Hay, 'Professor Eduardo Hay to S. E. Marques de Samaranch', (n.d.), CIO-AH B-ID04-MEDIC/037, SD1.

²⁰ 'Are Girl Athletes Really Girls?', *Lije*, 61/15 (7 Oct. 1966), p. 66.

Within this context, the IOC's actions in the 1960s can be interpreted as a response to growing public discourse. At this time, the IOC initiated a dual focus on doping and the issue of athletes' biological sex. Officials convened during the 65th Session in Tehran in May 1967 and collectively resolved to establish the IOC MC to implement and oversee doping regulations and sex testing.²¹ The minutes of the MC's inaugural gathering in Lausanne on 26 and 27 September 1967 provided the following account:

Before going into details, the Commission was of the opinion that it must be decided upon whom and exactly how the doping and sex tests should be carried out. After general discussion ..., it was decided that the dope tests would be undertaken on a random basis and the sex tests on the basis of the three winning female competitors in such events as will be stipulated at a later date.²²

This documentation underscores the inherent interconnection between doping regulations and sex tests from their inception, indicating a deliberate approach to regulating both aspects of potential cheating. Similarly, in October 1967, IOC General Secretary, Mr Johann W. Westerhoff, emphasised in his correspondence with the International Federations that 'doping and sex problems have particularly attracted our attention, and we propose to carry out controls during the 1968 Games'.²³ This reveals the IOC's assurance, as they intertwined the issues of doping and sex verification, seemingly suggesting that they harboured no reservations about associating both tests with guilt. However, this posed no concern to the IOC's spectators, who also perceived the issues of doping and sex verification as inherently interconnected, with rumours suggesting they stemmed from a common incentive: certain nations' desire to win at all costs, even if it meant resorting to cheating. Whether through advancements in medical technology or by seeking an advantage in what was perceived as the 'easier' path by entering male competitors to participate, spectators recognised the underlying motivation as a desire to gain an unfair advantage. Despite the myriad complexities and ethical dilemmas stemming from implicating chromosomal aberrations as indicators of malintent and sporting misconduct, this fundamental drive appeared to persist within the IOC over time.

Indeed, on 25 April 1983, more than fifteen years after the inception of the IOC MC, Professor Hay defended the adoption of chromatin screening to a staunch critic, Professor Albert de la

²¹ 'Minutes 65th Session Tehran', (3-9 May 1967), p. 13, CIO-AH B-ID04-MEDIC.

²² 'Minutes of Medical Commission Lausanne', (26-27 Sept. 1967), p. 1, CIO-AH B-ID04-MEDIC.

²³ J. W. Westerhoff, 'Draft of letter from Johann W. Westerhoff to all Int. Fed., Monsieur Le Président', (26 Oct. 1967), CIO-AH B-ID04-MEDIC/034, SD1, F.395, [original French – *Les Problèmes [sic] de doping et de sexe ont particulièrement attiré notre attention, et nous nous proposons de procéder a [sic] des contrôles au cours des Jeux de 1968*].

Chapelle.²⁴ Professor Hay referenced the circumstances of the 1960s, asserting that during this period, there were ‘female athletes, that either by use of drugs or the presence of congenital abnormalities, ... [had an] unfair advantage in relation with the normal athlete’.²⁵ Professor de la Chapelle’s reply on 9 May rightly dismissed the relevance of drug use in this context, as the debate at hand, chromosomal testing as a means of gender verification, could not detect steroid use.²⁶ However, this exchange illuminated the bureaucratic connection between doping and gender abnormalities during this period. Such conflation not only insinuated guilt upon individuals who diverged from the prescribed standards of ‘Olympic femininity’ but also revealed a pervasive bias against women who exhibited less traditionally feminine traits within the sporting community. Moreover, it highlighted a historic fear of the measures Cold War countries, not individuals, were willing to adopt to secure sporting victory and cultural supremacy for their nation. Therefore, the conflation of doping and gender abnormalities, along with the perpetuation of unsubstantiated rumours, reflected the pervasive patriarchal underpinnings within the IOC’s regulatory framework. This structure sought to maintain control over traditional perceptions of the female body and uphold established gender norms under the pretext of fair play.

With reference to certain genetic abnormalities and sex chromosome aberrations that could potentially offer advantages to women competing in the female category at the Olympics, such as Androgen Insensitivity Syndrome or XY Gonadal Dysgenesis, scholars such as Kathryn Henne and Lindsay Parks Pieper have proposed that gender verification testing was instituted to regulate intersexuality and ensure the Olympic Games were solely for cisgender individuals.²⁷ They cite evidence such as de Mérode’s 1987 letter to Professor de la Chapelle, wherein he elucidated the need for enforcing testing. De Mérode indicated that during the 1960s,

in certain regions, a systematic search was taking place for young people presenting sexual anomalies, which were then knowingly aggravated instead of any attempt being made to correct them. This unspeakable approach permanently compromised their future lives, having irreversible traumatic effects.²⁸

Although some scholars have suggested that evidence such as de Mérode’s letter implies the implementation of gender verification testing was to regulate intersexuality and that the IOC aimed

²⁴ E. Hay, ‘Letter from Dr. Eduardo Hay to Professor Albert de la Chapelle’, (25 Apr. 1983), CIO-AH B-ID04-MEDIC/036, SD1.

²⁵ *Ibid.*, p. 2.

²⁶ *Ibid.*

²⁷ K. E. Henne, *Testing for Athlete Citizenship: Regulating Doping and Sex in Sport* (New Brunswick, NJ, 2015); L. P. Pieper, *Sex Testing: Gender Policing in Women’s Sports* (Urbana, IL, 2016), p. 16.

²⁸ A. de Mérode, ‘Letter from Prince Alexandre de Mérode to Professor Albert de la Chapelle’, (14 July 1987), CIO-AH B-ID04-MEDIC/036, SD2, 4237/87/sja.

to exclusively accommodate cisgender individuals, this argument does not hold ground. This testing policy, far from merely reflecting cisnormativity, exhibited a decidedly gendered bias. Notably, across the annals of Olympic history, there exists no recorded instance of an athlete competing in the male category undergoing gender verification. This unequivocally undermines the notion that the policy primarily monitored intersexuality, laying bare its true agenda: to assert dominion over and prescribe boundaries upon women's bodies. As a scion of one of the most distinguished princely houses of the Belgian nobility, Prince Alexandre de Mérode likely held strong capitalist views. Consequently, although not explicitly stated, it is implied that he suggested communist countries were entering men as 'Eastern Bloc women' for sporting competitions. This corroborates the earlier narrative of Cold War history, which contextualised the proliferation of rumours in the Western world regarding a communist strategy to infiltrate intersex individuals into women's competitions. De Mérode regarded this as a 'particularly immoral form of cheating' that had surreptitiously spread within elite-level competitive sports and required intervention.²⁹

This rumour, circulating within sports administration regarding intersex participants, persisted even after testing was introduced. In 1988, Dr Jean-Pierre de Mondenard echoed these notions of suspicious behaviour amongst Soviet women to justify the introduction of gender verification testing.³⁰ He argued that the 1960s marked the 'intrusion of these "men-women"' into competitions reserved exclusively for women, with numbers peaking at the Tokyo Olympics in 1964.³¹ Dr de Mondenard's article claimed that 26.4% of gold medal-winning competitors—four out of fifteen—were authentic transsexuals, specifically naming Tamara Press (who won two medals), Irina Press, and Ewa Klobukowska.³² This assertion reflects the extent of suspicion among high-ranking doctors and genetic specialists. Their communication with the IOC could suggest the IOC's intention to preserve the Games for cisgender individuals while also ensuring fair play and what they perceived as the integrity of women's sports.

This evidence might initially suggest the IOC was motivated to establish the IOC MC to regulate doping, genetic controls, and other medical issues in response to widespread disapproval of certain nations' extreme measures to secure victories, especially focusing on Eastern Bloc nations, plus its

²⁹ A. de Mérode, 'Letter from Prince Alexandre de Mérode to Professor Albert de la Chapelle', (14 July 1987), CIO-AH B-ID04-MEDIC/036, SD2, 4237/87/sja.

³⁰ J.-P. de Mondenard 'Médecine du sport: sur la piste des « manipulations » sexuelles', *Medecine Pratique*, 4197 (1988), CIO-AH B-ID04-MEDIC/037, SD3.

³¹ *Ibid.*, p. 35, [original French – *l'intrusion de ces « hommes-femmes »*].

³² *Ibid.*

desire to uphold cisnormativity. However, in reality, the IOC and other key structural actors were primarily driven by a desire to diminish the growing success of women's sports.

Indeed, the notion that genetic abnormalities contribute to an unfair advantage in sports was not consistently applied in the context of fair play. As Vanessa Heggie pointed out, while there are likely hundreds of genetic variations that lead to 'unfair' advantages in sports, 'only those associated with gender are used to exclude or disqualify athletes'.³³ This dissertation goes further, asserting that the principle of fair play was not uniformly applied across the two gender categories of competition. Indeed, as more recently highlighted by Caster Semenya in her interview at the Oxford Union in November 2023, fair play serves as a construct designed to justify the exclusion of certain athletes, particularly female athletes, during this period.³⁴ Genetic and natural factors like height, arm span, lung capacity, foot size, and visual acuity are critical determinants of victory in the arena.³⁵ The extraordinary successes of Michael Phelps and Usain Bolt exemplify the profound impact of these attributes.³⁶ When discussing Phelps and Bolt, Dr Ian Bezodis, Sports Biomechanics Laboratory Director at Cardiff Metropolitan University, remarked, 'All elite athletes are freaks of nature, especially once you get to this level'.³⁷ Yet, in the female category, from the 1990s to the present day, elevated testosterone levels could lead to exclusion, as exemplified by Semenya's experience. Therefore, echoing Pieper's insightful observations, the rhetoric of fair play was cynically exploited as a pretext for the enforcement of sex testing and gender verification, disproportionately targeting female participants.³⁸

In essence, the argument contends that while the rhetoric of fair play was ostensibly used to justify gender verification testing, its underlying motivations were multifaceted, encompassing political, ideological, and competitive considerations. Ultimately, it suggests that the IOC's actions were not solely driven by a genuine commitment to fair play but also by broader socio-political dynamics and the desire to maintain a certain sporting order whereby women were limited to a lower physical standard.

³³ V. Heggie, 'Testing sex and gender in sports; re-inventing, reimagining and reconstructing histories', *Endeavour*, 34/4 (2010), p. 151.

³⁴ Interview with Caster Semenya, conducted by Sebastian Watkins, *Oxford Union* (6 Nov. 2023).

³⁵ M. Desai, 'The Anguish of being Extra-ordinary – Hyperandrogenism and the Need to Verify Gender', *Journal for Sports Law, Policy and Governance*, 1/1 (2018), p. 64.

³⁶ *Ibid.*

³⁷ C. Thomas, 'Built for speed: what makes Usain Bolt so fast?', *The Telegraph* (20 Aug. 2016).

³⁸ Pieper, *Sex Testing*.

Professor de la Chapelle, a prominent critic of the IOC's use of chromatin screening, exemplified this underlying desire to limit women's potential in sport. While expressing dissatisfaction with the detection criteria, his concern centred not on the treatment of women but rather on the testing process's accuracy in identifying intended candidates. In a 1987 letter to Dr Robert Baynton, Professor de la Chapelle lamented that 'over 90% of hypermuscular women are not detected'.³⁹ This highlights the shared objective among stakeholders to establish a category of 'weaker' individuals, a notion inherently linked to patriarchal constructs, where such categorisation inevitably aligned with the female gender.

Professor de la Chapelle's concerns were echoed in subsequent correspondence with de Mérode in 1987, in which he advocated for alternative testing methods to identify women deemed inappropriately competitive. Citing a case at the 1983 World Championships in Athletics held in Helsinki, where an athlete with masculine features passed chromosomal testing but raised suspicions due to her physical appearance, Professor de la Chapelle highlighted the inadequacy of existing protocols in detecting certain genetic conditions.⁴⁰ However, his proposed approach, using a hormone assay, did not demonstrate significant improvement; it seemed to target 'hypermasculine' women, revealing a patriarchal bias against female bodies that do not conform to traditional norms.⁴¹ This discourse reveals underlying currents of gender policing and political agendas within the era of chromosomal testing. The emphasis on policing femininity and excluding women who deviated from Western ideals further perpetuated the notion of Olympic femininity, restricting the entry of athletes who did not conform to conventional Western standards devised by men. Pieper's work, commenting on the suspicions aroused towards women who defied Cold War-era feminine norms, highlights the broader societal expectations imposed on female athletes.⁴²

In conclusion, the discourse on gender verification testing unveils a stark reality of female dehumanisation, propelled by Cold War militarism. Given the intrinsic link between the IOC, the Olympic Games, and national identity, it was arguably inevitable that the pressures of the Cold War, combined with the depiction of athletes as soldiers in this proxy conflict, spurred extreme measures to secure gold medals. Whether through legitimate avenues, such as rigorous training, or

³⁹ A. de la Chapelle, 'Letter from Albert de la Chapelle to Dr. R. Baynton', (2 Mar. 1987), p. 1, CIO-AH B-ID04-MEDIC/036, SD2, [emphasis in original source].

⁴⁰ A. de la Chapelle, 'Letter from Albert de la Chapelle to Prince Alexandre de Mérode', (31 July 1987), p. 2, CIO-AH B-ID04-MEDIC/036, SD2.

⁴¹ *Ibid.*

⁴² L. P. Pieper, 'Policing Womanhood: The International Olympic Committee, Sex Testing and the Maintenance of Hetero-Femininity in Sport' (PhD thesis, The Ohio State University, 2013), p. 6.

illegitimate methods, such as allegations of Eastern European women being coerced into using anabolic steroids or even entering male athletes into the female category, the Cold War female athlete-soldier reached unprecedented heights in the sporting arena. Ultimately, regardless of whether overt cheating occurred, this dissertation posits that the introduction of gender verification testing in 1968, within the context of Cold War sports, was a gendered response to the escalating success of women. The IOC and other organisations perceived the rise of a new, elevated standard in female athletics as an intrusion into the traditionally male-dominated realm of sports. This prompted the IOC to intervene and establish structures aimed at exerting patriarchal control over the definition of the female body, and thus, the organisation restricted female capabilities. These bodies contributed to the institutional inclination during this era to delineate and define women's sports as inferior, effectively redefining the parameters for a separate category of competition demarcated along gender lines.

The IOC, as the paramount institution under examination in this dissertation, held particular significance as a key player in the structural patriarchy enforced in response to the growing strength of the female body, ultimately culminating in the introduction of gender verification testing. Influential figures within the field, including distinguished English geneticists who engaged in correspondence with Mary Glen-Haig, one of the first female members of the committee, asserted that the IOC played a key role in 'set[ting] the standard for the whole of sport'.⁴³ Undoubtedly, the IOC, established as a non-profit, international organisation in 1894 to oversee the modern Olympic Games, assumes a central position in shaping policies related to gender verification at the Games. Of particular concern within the IOC was its MC, which, as aforementioned, was established in 1967 as a specialised body dedicated to medical and anti-doping issues in sports. Due to the soft power value of sport, which contributed to the growing success of women in sports, the MC focused particularly on gender verification and doping regulations, revealing a comprehensive agenda arguably aimed at stifling female achievement.

To effectively implement gender verification testing, the MC recognised the imperative of collaboration with various organisations on a consultative basis. This widened the construction of structural patriarchy, allowing for a more comprehensive and systematic approach to regulating gender in sports. When Westerhoff (IOC General Secretary) sent a letter to the Presidents of all International Sport Federations in October 1967, he emphasised the necessity of this 'close co-

⁴³ M. A. Glen-Haig, 'Letter from M. A. Glen Haig to Prince de Mérode', (30 Dec. 1987), CIO-AH B-ID04-MEDIC/037, SD1, 66.

operation with the International Federations' to tackle the 'very controversial problems' surrounding gender verification and doping.⁴⁴ This cooperative approach was crucial in shaping policies, notably evident in the pivotal role played by the IAAF, now rebranded as World Athletics, between 1968 and 1992. In the context of gender verification testing at the Olympic Games, the IAAF distinguished itself by taking the forefront in discussions aimed at ostensibly limiting female possibilities in sport. Indeed, rule 141, outlined in the IAAF Official Handbook for the 1965/66 season, stipulated that participants in women's events must present a 'certificate as to sex, issued by a qualified medical doctor, recognised by the National Association'.⁴⁵ First implemented at the European Athletics Championships in Budapest in 1966, this regulation preceded any discussions at the IOC and even preceded the establishment of the IOC MC.⁴⁶ In June 1968, de Mérode, the head of the newly formed IOC MC, instructed the IAAF Secretary General to send an excerpt from IAAF's rule 141 regarding 'entries' for the IOC MC's consultation.⁴⁷ De Mérode's proactive correspondence highlighted the IOC's intention to align its policies with the wording and guidelines established by the IAAF. Hence, despite the conventional hierarchy that placed federations below the IOC in authority, the IAAF deserves recognition as a parallel and interchangeable authority in the realm of structural patriarchy that led to the inception of gender verification during this era. Its significance cannot be overstated, as it wielded substantial influence in establishing and refining testing protocols, playing a crucial role in the male-dominated discourse aimed at dictating the definition of the female body.

This dissertation critically examines the interactions of key individuals with these aforementioned institutions, highlighting the contested nature of interactions concerning gender verification. Firstly, Avery Brundage, President of the AOA from 1928 to 1953 and President of the IOC from 1952 to 1972, played a key role in shaping the narrative of misogyny underpinning the implementation of gender verification testing. Gerald P. Schaus and Stephen R. Wenn succinctly captured Brundage's two-decade presidency at the IOC: 'In most bastions of sports conservatism around the world, Brundage was held in high regard. In the chambers of liberalism and those forums arguing for change, he was vilified'.⁴⁸ Indeed, Brundage's influence on gender verification

⁴⁴ J. W. Westerhoff, 'Letter from J. W. Westerhoff to the International Sports Federations, Mr. President', (31 Oct. 1967), CIO-AH B-ID04-MEDIC/034, SD2, F.395.

⁴⁵ I.A.A.F., *Official Handbook 1965/66*, (London, 1965), p. 70.

⁴⁶ A. Ljungqvist, 'Historical Perspective of Gender Verification', (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

⁴⁷ A. de Mérode, 'Note from Alex de Mérode to Monsieur le Secrétaire Général', (14 June 1968), CIO-AH B-ID04-MEDIC/035, SD2.

⁴⁸ G. P. Schaus and S. R. Wenn, *Onward to the Olympics: Historical Perspectives on the Olympic Games* (Waterloo, Canada, 2007), p. 230.

testing was highly controversial. His actions reveal a misogynistic and patriarchal attempt to limit women's participation in sports, making his role of paramount significance to this discussion.

The genesis of gender verification discourse at the Olympic level can be traced back to his aforementioned correspondence with the IOC in 1936.⁴⁹ He wrote to de Baillet-Latour, then President of the IOC, describing a letter he had received from a sports enthusiast advocating for the participation of female athletes but expressing doubts about an unnamed athlete's gender suitability for the female category.⁵⁰ The athlete's allegedly 'masculine' attributes, including a 'deep bass voice, height, and 10 ½ inch shoes', prompted questions about her eligibility.⁵¹ Upon receiving this letter, Brundage expressed concern to de Baillet-Latour about reports circulating of athletes who had competed for years as women and then, upon retirement, 'announced herself (?) a boy'.⁵² Brundage ended his letter by proposing that if no measures have already been implemented regarding this issue, it might be prudent to require a medical examination prior to participation in the Olympic Games.⁵³ Ultimately, scepticism towards female athletes and the suspicion that men were masquerading as women was not unique but rather ingrained in Brundage's approach. His stance was characterised by deeply entrenched suspicions and aversions towards female participation in sports.

An illustrative incident occurred in 1932 when the Brundage-led Amateur Athletic Union promptly suspended the amateur status of track star Mildred 'Babe' Didrikson for her appearance in an automobile advertisement. In reaction to Didrikson's objection, Brundage expressed his misogynistic views, stating, 'You know, the ancient Greeks kept women out of their athletic games. They wouldn't even let them on the sidelines. I'm not so sure[,] but they were right'.⁵⁴ Therefore, the significance of Brundage, AOA President and then IOC President when testing was first introduced in the 1960s, to this narrative cannot be overstated. His misogynistic views towards women's suitability to participate in sport were central to the discourse surrounding gender verification testing, perpetuating a cultural constraint on women's opportunities in sport. Brundage was the patriarchal spearhead of this structural patriarchy.

⁴⁹ A. Brundage, 'Letter from Avery Brundage to Count Henri de Baillet-Latour', (23 June 1936), CIO-AH B-ID04-MEDIC/035, SD1, 8457.

⁵⁰ *Ibid.*

⁵¹ *Ibid.*

⁵² *Ibid.*, [emphasis in original].

⁵³ *Ibid.*

⁵⁴ R. Butterfield, 'Avery Brundage', *Life*, 24 (14 June 1948), p. 115-126 cited in S. J. Blithe and J. N. Hanchey, 'The Discursive Emergence of Gendered Physiological Discrimination in Sex Verification Testing', *Women's Studies in Communication*, 38/4 (2015), pp. 486-506.

De Mérode, serving as the second-in-command within Brundage's structural patriarchy, assumed the presidency of the IOC MC for thirty-five years, from its inception in 1967 until his death in 2002. Despite evolving social perceptions of femininity and scientific progress during his tenure, the Commission remained under the leadership of this one man, which likely contributed to its lack of innovation and resistance to implementing updated gender verification protocols. In 1967, Brundage entrusted de Mérode with the task of establishing the MC and overseeing its examination of anti-doping measures, as well as creating a medical testing service for the 1968 Olympic Games.⁵⁵ De Mérode's influence on the IOC's response to the increasing success of female athletes extended beyond being the figurehead of the Commission, as he was often called upon to lead meetings that further delineated IOC control. For example, a significant issue during the 1972 Munich Games was the belated formation of a prohibited substance list.⁵⁶ Consequently, in 1973, a letter from the organisers of the 1976 Montreal Olympics proposed de Mérode as the ideal host for a meeting.⁵⁷ This meeting, while focussed on doping, further underscored de Mérode's involvement in regulating the female body. Doping and sex verification were intricately linked due to concerns about the extreme measures certain nations were prepared to employ to attain Olympic success.

De Mérode's importance was further highlighted by his central role in receiving and presenting documents to the IOC MC. For instance, in May 1968, Dr Albert Dirix, a Flemish member of the MC, forwarded to de Mérode an essay by Professor Herman Vanden Berghe of the Centre for Human Genetics of Leuven University, titled 'A Short Survey of the More Frequent Sex Aberrations and Their Causes'.⁵⁸ This document proved instrumental in shaping the initial regulations. De Mérode was responsible for deciding upon the relevance of such documents and presenting them to the Commission. His significance in the matter of gender verification was, therefore, further emphasised through these meetings, as the notes and conclusions he compiled played a crucial role in shaping the regulations governing testing at subsequent Olympic Games. An illustrative example was the Femininity Control guidance authored by de Mérode in preparation

⁵⁵ 'Minutes 65th Session Tehran', (3-9 May 1967), p. 13, CIO-AH B-ID04-MEDIC.

⁵⁶ A. Takac, 'Mr. Artur Takac to Mr. Simon St.-Pierre: COJO 76 Memorandum on the Preparation of the Doping and Sex Control in The Games, and the Trip of Dr. Laurin to Moscow', (18 May 1973), CIO-AH B-ID04-MEDIC/034, SD1.

⁵⁷ *Ibid.*

⁵⁸ A. Dirix, 'Letter from Docteur Dirix to Monseigneur', (29 May 1968), CIO-AH B-ID04-MEDIC/035, SD2; H. Vanden Berghe, 'A Short Survey of the More Frequent Sex Aberrations and their Causes', (n.d.), CIO-AH B-ID04-MEDIC/035, SD2.

for the 1976 Montreal Games.⁵⁹ Thus, de Mérode emerged as a central figure, shaping anti-doping measures, gender verification procedures, and medical policies within international sports during his tenure at the IOC. His involvement in a broad range of IOC issues demonstrated his influential role in discussions, furthering the vast control of women's bodies across numerous aspects of Olympic competitions.

Brundage and de Mérode, pivotal figures within the IOC and its MC, laid the groundwork for patriarchy to flourish in the governance of Olympic sports. During this period, the world of sports administration was inherently masculine, as illustrated by a letter from the Munich Organising Committee sent to all International Federations and National Olympic Committees (NOCs) in January 1972.⁶⁰ This letter, distributed on behalf of de Mérode, including copies of regulations for the upcoming 'sex control', addressed the members of the committees as 'Dear Sirs', thus revealing the fact that women had not ascended, and the subconscious belief that they never would ascend, to the pinnacle of these leading organisations.⁶¹ The realm of sports administration appeared capable of only admitting male entrants.

Despite this predominantly male landscape, Monique Berlioux and Dr Elizabeth Ferris emerged as notable exceptions, carving their narratives into the fabric of sports administration. However, one must question the extent to which these women were fully integrated into the masculine world of sports administration and to what extent they perpetuated its gendered exclusivity, acting as gatekeepers to non-male entrants.

Berlioux pioneered the inclusion of women in sports administration. She held the position of IOC Director-General from 1971 to 1985, thereby securing her place in history as the highest-ranked woman in sports administration, a record distinction that remained unbroken until 2004.⁶² As a former French national swimming champion, Berlioux's career then took on a new trajectory after her education in journalism led her to a role at the IOC.⁶³ Appointed by President Brundage, she ascended to the position of Executive Director in 1971 and operated as the right-hand confidante

⁵⁹ A. de Mérode, 'Femininity Control – 1976 Olympic Games – Montreal', (9 Sept. 1976), CIO-AH B-ID04-MEDIC/035, SD2.

⁶⁰ E. Knoesel, 'Letter from Knoesel to the International Federations', (26 Jan. 1972), CIO-AH B-ID04-MEDIC/034, SD1, 21.

⁶¹ *Ibid.*

⁶² A. Verschoth, 'Carrying The Torch: Olympic Committee Presidents May Come And Go, But Monique Berlioux Is An Enduring Power In Amateur Sport', *Sports Illustrated* (13 Apr. 1981), pp. 70-76.

⁶³ A. L. DeFrantz, 'An Olympian's Oral History Monique Berlioux', *Digital LA84 Foundation* (2015), <https://digital.la84.org/digital/collection/p17103coll11/id/43/> (5 June 2023).

of three successive IOC Presidents: Avery Brundage, Lord Killanin, and Lord Samaranch.⁶⁴ Acknowledged by Joanne Davenport as ‘one of the most powerful women in the history of sports, if not the most powerful’, Berlioux, importantly, was one of the few women employed by the IOC during the period of chromatin screening for gender verification.

Berlioux’s ascendancy to the zenith of her influence occurred between 1972 and 1980, aligning with Lord Killanin’s remote stewardship of the Olympic Movement from Ireland. Throughout this period, Berlioux assumed de facto leadership of the organisation, overseeing day-to-day operations from IOC headquarters in Lausanne, Switzerland.⁶⁵ Addressing concerns and issues to Berlioux during the 1970s effectively meant bringing them to the attention of the IOC President. For example, in 1973, communication from IAAF Secretary-Treasurer Holder, requesting the official list of female athletes tested in Munich, addressed Berlioux directly, with Holder acknowledging, ‘it may well be that I should have written to you in the first place.’⁶⁶ This gesture, amidst a myriad of official correspondences, including exchanges with the IOC MC, highlighted Berlioux’s pivotal role in actively facilitating the gender verification process. Similarly, in 1979, with Lord Killanin in Ireland, Berlioux demonstrated her authority by acting as President and managing official communications with international federations.⁶⁷ Yet, this evidence also prompted questions about her potential complicity in perpetuating the organisation’s structural patriarchy, potentially to the detriment of her female sporting peers. It suggested Berlioux’s role as a gatekeeper, reinforcing the male-dominated nature of the IOC and solidifying its hierarchical power dynamics.

Indeed, the archives unequivocally reveal Berlioux as complicit in reinforcing the IOC’s structural patriarchy. As both de Mérode’s spokesperson and the de facto head of the IOC in the late 1970s and early 1980s, Berlioux effectively facilitated conversations that contributed to the diminished status of women’s sports. A notable instance was a letter from Berlioux to Dr Hart, a member of

⁶⁴ L. F. Chase, ‘A Policy Analysis of Gender Inequality within the Olympic Movement’, (paper presented at the First International Symposium for Olympics Research, University of Western Ontario, Canada, 1992), pp. 30.

⁶⁵ G. Miller, *Behind the Olympic Rings* (Lynn, MA, 1979), pp. 54-55.

⁶⁶ F. W. Holder, ‘Letter from Frederick W. Holder to Mme Berlioux: Sex Control Lists for Munich’, (7 June 1973), CIO-AH B-ID04-MEDIC/035, SD2.

⁶⁷ M. Berlioux, ‘Letter from Monique Berlioux to Monsieur Charles de Coquereumont’, (16 Oct. 1978), CIO-AH B-ID04-MEDIC/035, SD3, 5739/78/AC/jw; M. Berlioux, ‘Letter from Monique Berlioux to Monsieur Pierre Ferri’, (16 Oct. 1978), CIO-AH B-ID04-MEDIC/035, SD3, 5740/78/AC/jw; M. Berlioux, ‘Letter from Monique Berlioux to Monsieur Yuri Titov’, (16 Oct. 1978), CIO-AH B-ID04-MEDIC/035, SD3, 5741/78/AC/jw; M. Berlioux, ‘Letter from Monique Berlioux to Maltre Marc Hodler’, (16 Oct. 1978), CIO-AH B-ID04-MEDIC/035, SD3, 5742/78/AC/jw; M. Berlioux, ‘Letter from Monique Berlioux to Monsieur Francesco Gneccchi-Ruscone’, (16 Oct. 1978), CIO-AH B-ID04-MEDIC/035, SD3, 5743/78/AC/jw; M. Berlioux, ‘Letter from Monique Berlioux to Monsieur Sergio Orsi’, (9 Jan. 1979), CIO-AH B-ID04-MEDIC/035, SD3, 131/79/AC/mr.

the Organising Committee for the XIIIth Olympic Winter Games in Lake Placid, New York.⁶⁸ In this correspondence, Berlioux conveyed a reminder to Dr George C. Hart concerning the pending document from Dr Pearl, which detailed their execution of femininity control and the details of those who passed the test at the previous games.⁶⁹

As a result, acting in tandem with Brundage and de Mérode and despite her own gender, Berlioux was complicit in the administrative execution of gender verification, reinforcing the institution's disregard for the diversity of the female bodies. An even more condemning example emerged later in 1980 when Berlioux addressed professors, including Dr James A. Monteleone, regarding concerns about psychological trauma from femininity tests.⁷⁰ Berlioux's response to Dr Monteleone expressed gratitude for his concerns about the potential psychological trauma stemming from failing femininity tests.⁷¹ However, she maintained that the physicians involved were mindful of their responsibilities and took numerous measures to prevent imposing trauma on their patients.⁷² Notably, Berlioux even suggested that the IOC was actually benefiting female athletes, arguing that early awareness of their situation would be more advantageous for their future lives.⁷³ This perspective displayed a lack of empathy for the immediate distress such news could cause, reflecting the entrenched patriarchal views upheld by the organisation she worked for. Consequently, Berlioux was not merely complicit; she actively facilitated the structural patriarchy, undermining the interests of women in sports.

Nevertheless, one beneficial outcome of Berlioux's gatekeeping position was her support for her ally, Dr Ferris. Together, they courageously challenged stereotypes and forged a path for women in sports policy. However, despite their persistent efforts to challenge the IOC's structural patriarchy, they could not fundamentally change the male-dominated institution, which was rooted in nearly a century of exclusively male discourse, and they often found themselves excluded from crucial conversations. Professor Hay, for example, expressed frustrations when dealing with Dr Ferris in ways not exhibited in his dealings with male peers, thus exposing an incomplete acceptance of women at the decision-making table. For instance, in 1981, Professor Hay replied to Dr Ferris regarding her inquiries about femininity tests. He forwarded a copy of this reply to

⁶⁸ M. Berlioux, 'Letter from Monique Berlioux to Dr. Hart', (28 Apr. 1980), CIO-AH B-ID04-MEDIC/035, SD4, 4146/80/AC/dr.

⁶⁹ *Ibid.*

⁷⁰ M. Berlioux, 'Letter from Monique Berlioux to Professor Monteleone: Femininity tests', (27 May 1980), CIO-AH B-ID04-MEDIC/035, SD4, 5026/80/AC/dr.

⁷¹ *Ibid.*

⁷² *Ibid.*

⁷³ *Ibid.*

Berlioux, attaching a note in which he complained about the shocking questions Dr Ferris had asked and expressed frustration over the ‘details and figures’ she requested, which he feared could expose secrets the IOC kept within its medical exams.⁷⁴ Professor Hay’s treatment of Dr Ferris starkly contrasted with the warmth and camaraderie evident in the communications between Berlioux and Dr Ferris. Their shared experiences fostered a unique relationship that extended beyond formal business exchanges. The intimacy of Berlioux and Dr Ferris’ connection allowed for a degree of informality in their letter salutations and sign-offs, exemplified by Dr Ferris concluding her telex messages with ‘dr elizabeth ferris (liz)’ and frequently adding handwritten notes such as ‘my dear Monique’ at the letter’s beginning and ‘love Liz’ at its end.⁷⁵ This exchange showcases a level of informality and a unique bond marked by personal comments and expressions of familiarity absent in their interactions with their male counterparts. In essence, although Berlioux and Dr Ferris managed to forge a space for female voices—albeit mainly with each other—they were still treated as outsiders, mere guests within the patriarchal institution.

Ultimately, these voices, though significant in carving out a space for women in this discourse, were minimal and largely suppressed by men. Despite Berlioux’s position of power, the archival correspondence between Berlioux and Dr Ferris reveals a disparity in their ability to express their views as women in a male-dominated world, with Berlioux’s voice often being silenced. In the aforementioned letter from Berlioux to Dr Ferris in November 1979, Berlioux acknowledged that Dr Ferris’ proposal was received without much enthusiasm at the IOC MC meeting in Moscow.⁷⁶ She mentioned some issues with the proposal and concluded by stating the ‘Medical Commission was of the opinion’ that male athletes would not gain an advantage from similar abnormalities in sports such as diving or figure skating due to the requisite muscular strength.⁷⁷ This final remark underscores the challenge Berlioux faced in having her views taken seriously amid the discussion. Despite her engagement with the topic, Berlioux’s voice appears silent in the archival records, as she merely transmits others’ viewpoints.

⁷⁴ E. Hay, ‘Note from E. Hay to Madame’, (received 4 Mar. 1981), CIO-AH B-ID04-MEDIC/035, SD4, 1614, [original French – *La Dr Ferris m’a envoyé un véritable questionnaire où elle demandait détails et chiffres qui auraient pu rompre le secret que le CIO garde dans ses examens de la Commission Médicale*].

⁷⁵ E. Ferris, ‘Telex from dr elizabeth ferris (liz) to monique’, (9 Nov. 1979), CIO-AH B-ID04-MEDIC/035, SD2, 1652; E. Ferris, ‘Letter from liz to my dear Monique’, (19 Dec. 1979), CIO-AH B-ID04-MEDIC/035, SD4, 8734; E. Ferris, ‘Letter from liz to Monique’, (24 June 1980), CIO-AH B-ID04-MEDIC/035, SD4, 6449.

⁷⁶ M. Berlioux, ‘Letter from Monique Berlioux to Dr. Elizabeth Ferris: Femininity Control’, (9 Nov. 1979), CIO-AH B-ID04-MEDIC/035, SD2, 6756/79/AC/dr.

⁷⁷ *Ibid.*

The notion of silencing is further highlighted by Berlioux's resignation statement in August 1985, in which she acknowledged her lengthy tenure and occasional disagreements within the organisation:

I have held the position for 18 years. Of course, I may on occasion have found myself in disagreement with some of you on particular issues. But this is only normal in an organization like ours ... My only rule of conduct has always been: the interests of the Movement and its ideals ... I shall always be proud of the level (the administration) has reached. I shall say no more. A Director has moved on. Long live Olympism.⁷⁸

Berlioux's experience serves as a poignant example of the deep-rooted structural patriarchy within sports administration, where women faced formidable barriers in having their voices heard and their perspectives valued. The patriarchal power dynamics inherent in such environments often relegated women like Berlioux to the sidelines, limiting their agency and influence in shaping policies and decisions. Despite her dedication and commitment to the Olympic Movement, Berlioux's resignation statement reflects the tacit acceptance of her marginalised position within the organisation. Her narrative highlights the pervasive challenges that women encountered in navigating male-dominated spaces, where their contributions were frequently overlooked or dismissed. In contrast to Dr Ferris' assertiveness, Berlioux's journey elucidates the enduring struggle for gender equality in sports governance, emphasising the need for systemic change to dismantle the barriers that hinder women's advancement and representation in leadership roles.

Furthermore, despite her continued involvement in IOC affairs after Samaranch assumed the presidency in August 1980, Berlioux's influence gradually waned, highlighting the persistent patriarchal nature of the IOC. Initially, Berlioux accompanied Samaranch on all official trips and briefed him on policy and information before meetings. For instance, in 1981, they travelled together to Los Angeles to stay abreast of preparations.⁷⁹ Peter Ueberroth, head of the LA Organising Committee, noted Berlioux's significant influence, emphasising her role, not his, in conveying new policies.⁸⁰ However, tensions between Berlioux and Samaranch heightened as Samaranch relocated to Lausanne in 1984 to be closer to IOC affairs.⁸¹ Ultimately, Samaranch took issue with Berlioux's powerful position, asserting his authority as president to 'put every man in his place in the organization'.⁸² Ironically, just as women gained membership of the IOC in 1981,

⁷⁸ 'Decision of the 90th Session of the IOC', *Olympic Review*, 214 (1985), p. 424.

⁷⁹ J. Davenport, 'Monique Berlioux: her association with three IOC Presidents', *Journal of Olympic History*, 4/3 (1996), p. 15; Verschoth, 'Carrying The Torch', p. 73.

⁸⁰ *Ibid.*

⁸¹ Davenport, 'Monique Berlioux', p. 16.

⁸² A. C. Bodwin, 'Juan Antonio Samaranch', *Contemporary Newsmaker* (Detroit, MI, 1986), p. 92 cited *Ibid.*, p.15.

Berlioux's influential position as a woman at the symbolic head of a male-dominated institution came to an end.⁸³ This shift underscores the challenges faced by women in maintaining positions of power within male

Looking more broadly, given the robust patriarchal structure in existence during the 1960s, it was unsurprising that the IOC assumed a pivotal role in safeguarding male dominance in Olympic sports through the enactment of sex testing measures. Indeed, amidst the historical Cold War context, where athletes were dehumanised as soldier-like figures and pushed to extreme measures, including unethical practices such as steroid use, and when unequivocally male participants were knowingly entered into female competitions, sports administrators reacted by constructing a robust structural patriarchy. This system was specifically devised to actively impede women's success in sports, targeting two main avenues: anti-doping regulations and gender verification testing.

The inception of gender verification, to a level that concerned the IOC, can be traced back to the visual testing introduced at the European Athletics Championships held in Budapest in 1966.⁸⁴ This method emerged as a response to concerns regarding the effectiveness of the previous approach, established in 1948 by the British Women's Amateur Athletic Association.⁸⁵ Under this earlier system, a doctor's letter was used to verify the sex of female competitors.⁸⁶ However, by 1966, it was deemed 'too open to abuse to be effective against a determined imposter'.⁸⁷ Complaints swiftly followed the introduction of visual testing, when many of the 243 women subjected to testing described the procedure as 'demeaning', and all were pronounced 'normal'.⁸⁸ Its continuation was rationalised by the withdrawal of five world record holders from the competition, including Tamara Press, whom news reporters had speculated was, in fact, one of the 'Press Brothers'.⁸⁹ Nevertheless, visual gender verification practices continued and extended to the 1966 Commonwealth Games in Kingston, Jamaica, where physical exams required the manual

⁸³ J. Davenport, 'The role of women in the IOC and the IOA', *Journal of Physical Education, Recreation and Dance*, 59/3 (1988), p. 43.

⁸⁴ D. Larned, 'The femininity test: A woman's first Olympic hurdle', *womenSports*, 3/41 (1976), pp. 8-11 cited in M. A. Ferguson-Smith and E. A. Ferris, 'Gender verification in sport: the need for change?', *British Journal of Sports Medicine*, 25/1 (1991), p. 17.

⁸⁵ M. A. Ferguson-Smith and E. A. Ferris, 'Gender verification in sport: the need for change?', *British Journal of Sports Medicine*, 25/1 (1991), p. 17.

⁸⁶ *Ibid.*

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*

⁸⁹ J.-P. de Mondenard 'Médecine du sport: sur la piste des « manipulations » sexuelles', *Medecine Pratique*, 4197 (1988), p. 35, CIO-AH B-1D04-MEDIC/037, SD3; 'Are Girl Athletes Really Girls?'

examination of external genitalia by a gynaecologist.⁹⁰ Athletes deeply resented this treatment.⁹¹ Similarly, at the 1967 Pan American Games in Winnipeg, Canada, ‘on sight’ inspections were conducted.⁹²

In their comprehensive 1991 article published in the *British Journal of Sports Medicine*, Dr Ferris and Dr Malcolm Ferguson-Smith provided a detailed examination of the IOC’s engagement with these contentious visual testing methods.⁹³ They elucidated how the pervasive discontent and escalating criticism surrounding such practices prompted the IOC to investigate alternative testing methodologies.⁹⁴ It is pertinent to emphasise that the IOC refrained from directly instigating visual testing methods.

However, the IOC cannot absolve itself entirely from the practice of visual testing, despite claims made in a 2013 correction report by the Centre for Sport Policy Studies at the University of Toronto.⁹⁵ Indeed, the IOC was actively engaged in discussions about visual testing. For instance, in January 1967, the Secretary-Treasurer of the IAAF, Mr Donald Pain, corresponded with Westerhoff, the IOC Secretary, in response to a request for federations to submit their regulations on doping and medical certificates for female athletes.⁹⁶ Pain responded, indicating that for minor competitions, the IAAF mandated female participants to furnish a sex certificate from a qualified medical doctor.⁹⁷ However, for Area Games or Championships, eligibility was determined by a panel of three women doctors through a visual examination.⁹⁸ Similarly, in November of the same year, Włodzimierz Reczek, President of the Polish Olympic Committee, penned a letter to de Mérode, Chairman of the IOC MC, expressing concern about the visual testing methods and advocating for a unified approach developed by the IOC in consultation with doctors.⁹⁹ Surprisingly, it was not MC Chairman de Mérode but IOC President Avery Brundage who

⁹⁰ A. Turnbull, ‘Women enough for the Games?’, *New Scientist*, 15 (1988), pp. 61-4 cited in N. A. Xavier and J. B. McGill, ‘Hyperandrogenism and Intersex Controversies in Women’s Olympics’, *The Journal of Clinical Endocrinology and Metabolism*, 97/11 (2012), p. 3903

⁹¹ *Ibid.*

⁹² D. Larned, ‘The femininity test’, p. 17.

⁹³ *Ibid.*

⁹⁴ *Ibid.*

⁹⁵ P. Donnelly and M. K., Donnelly, ‘Sex Testing, Naked Inspections and the Olympic Games – A Correction to: The London 2012 Olympics – A Gender Equality Audit’ (Research Report, Centre for Sport Policy Studies, Faculty of Kinesiology and Physical Education, University of Toronto, 2013).

⁹⁶ D. T. Pain, ‘Letter from Hon. Secretary-Treasurer to Mr. Westerhoff’, (3 Jan. 1967), CIO-AH B-ID04-MEDIC/034, SD1.

⁹⁷ *Ibid.*

⁹⁸ *Ibid.*

⁹⁹ W. Reczek, ‘Letter from Włodzimierz Reczek to Prince Alexandre de Mérode’, (24 Oct. 1967), p. 1, B-ID04-MEDIC/035, SD2.

responded to this letter.¹⁰⁰ Brundage emphasised that ‘one examination should be enough and the arrangements must be very carefully made to prevent a stigma on innocent persons’.¹⁰¹ At this juncture, neither correspondence had delved into the realm of chromosome testing, a method not proposed to the IOC until 20 December 1967, during a Medical Commission Meeting in Lausanne.¹⁰² This correspondence between Reczek and Brundage underscores that while the IOC never formally sanctioned visual testing, they were significantly engaged in deliberations on the subject, with Brundage’s language suggesting a tacit consideration of its potential adoption. Consequently, the letters received by the IOC expressing concerns about the objectification of women through visual testing represent just one facet of the ongoing criticism the IOC encountered in the lead-up to the formulation of their medical policy. Indeed, during that time prior to the introduction of chromatin screening in 1968, the IOC found itself associated with the objectification of women through visual testing and was only spared from direct involvement due to the absence of an imminent Olympiad.¹⁰³ Hence, despite having all the structural and historical prerequisites that arguably made gender verification testing inevitable, the IOC managed to avoid visual testing due to fortuitous timing. This allowed them to conduct further research, ultimately leading to the introduction of chromatin screening through the Barr Body Test at the Mexico City Olympics in the summer of 1968.

¹⁰⁰ A. Brundage, ‘Letter from Avery Brundage to President Reczek’, (4 Nov. 1967), CIO-AH B-ID04-MEDIC/035, SD2.

¹⁰¹ *Ibid.*

¹⁰² ‘Minutes of Medical Commission Lausanne’, (20 Dec. 1967), p. 4, CIO-AH B-ID04-MEDIC.

¹⁰³ Before 1992, both the Summer and Winter Olympics occurred in the same year (1964 Winter Olympics in Innsbruck, 1964 Summer Olympics in Tokyo, 1968 Winter Olympics in Grenoble, and 1968 Summer Olympics in Mexico).

CHAPTER 2 – THE MEDICAL GAZE:

POST-HUMAN TURN AND SECOND-WAVE FEMINISM

The introduction of gender verification testing at the Mexico City Olympics in 1968 was not merely a relic of Cold War competitiveness, where the quest for gold symbolised soft-power advances on a new battlefield. This practice was rooted in the IOC's adherence to outdated ideas, especially in the wake of post-humanism and second-wave feminism's challenge of the gender binary. The IOC's insistence on defining gender strictly by chromosomal sex revealed an antiquated understanding of male and female genetic development. Examining the introduction of gender verification from a medical history perspective unveils that critiques directed towards the IOC were frequently based on scientific validity and precision, overlooking the broader issue of women's rights. This outlook was unmistakably intertwined with patriarchal influences, reflecting persistent efforts to control definitions of the female athlete body. The evidence, therefore, indicates that the contentious practice of gender verification would likely have emerged irrespective of Cold War dynamics, particularly within the sports arena, where competition relies heavily on 'a binary logic of sex, which is based upon an empirical classification of competitors and competition into men and women, male and female'.¹

In a scathing critique of the IOC's relentless use of gender verification testing, Professor de la Chapelle wrote to the IOC in 1983, condemning the ineffectiveness of these measures, which he claimed had led to the exclusion of only one athlete.² He aptly referred to this process as the 'machinery of "femininity control"'.³ This powerful terminology serves as a bridge connecting the previous chapter to the current one. While revealing the medical discourse surrounding this topic, at the core of this chapter are the poignant tales of female athletes entangled in a narrative of dehumanisation, intertwined with an examination of the profound influence exerted by this fractious era on the discourse surrounding gender and sex. Indeed, another significant narrative contributing to the introduction of gender testing was the emergence of the post-human turn and societies' gradual departure from rigid gender binaries. This societal evolution pressured the IOC

¹ K. Woodward, 'Gendered Bodies, Gendered Injuries' in S. Wagg and A. M. Pollock (eds), *The Palgrave Handbook of Sport, Politics and Harm* (Basingstoke, 2021), p. 212.

² A. de la Chapelle, 'Letter from Albert de la Chapelle to International Olympic Committee, Madame', (9 May 1983), CIO-AH B-ID04-MEDIC/036, SD1, 5754.

³ *Ibid.*

and other governing bodies to grasp onto patriarchal norms, stubbornly upholding outdated methods.

Post-human discourse, particularly concerning gender, surged after the 1960s with significant scientific and technological advancements.⁴ These innovations challenged and reshaped traditional gender paradigms by blurring the lines between biological and artificial societal constructs. Technologies, such as hormone replacement therapies, genetic modifications, and prosthetics, became increasingly advanced, enabling the amplification or diminution of specific gendered traits to become a tangible reality. This evolution led to the shedding of conventional human and biological boundaries as humans increasingly integrated with machines. The post-human discourse explores how these advancements disrupted traditional gender norms, necessitating the development of new frameworks for conceptualising gender beyond the binary view of male and female.

As aforementioned, Haraway's *A Cyborg Manifesto* suggested that society challenged gender norms due to the 'pollution' of the boundaries between humans, animals, and machines.⁵ The manifesto argued that in the 21st century, the notion of 'self' transcended singular identity, evolving into a mosaic of politicised, technologized, and fragmented cyborg 'selves'.⁶ Haraway contended that cyborgs, including cyborg athletes, embody these intersections and not only challenge oppressive boundaries but also foster potentially emancipatory experiences.⁷ Through their 'cyborgification', they defied societal constraints, forging new paradigms of identity and capability that redefine human potential in profound ways.⁸

Moreover, the concept of 'cyborgification' and the post-human shift aligns with broader trends identified by Daniel T. Rodgers in *Age of Fracture*.⁹ He posited that the late twentieth century witnessed a fragmentation of ideas, moving away from grand narratives to a more individualistic worldview influenced by globalisation, neoliberalism, identity politics, and technology.¹⁰ Rodgers depicted this fractious era as marked by profound intellectual transformation, characterised by the

⁴ S. McCracken, 'Cyborg Fictions: The Cultural Logic of Posthumanism', *Socialist Register*, 33/1 (1977), pp. 288-231.

⁵ D. J. Haraway, *Manifestly Haraway* (Minneapolis, MN, 2016), p. 10.

⁶ A. Balsamo, *Technologies of the Gendered Body* (Durham, NC, 1996), p. 34.

⁷ *Ibid.*

⁸ P. D. Howe, and C. F. Silva, 'The cyborgification of paralympic sport', *Movement & Sport Sciences - Science & Motricité*, 97 (2017), pp. 17-25.

⁹ D. T. Rodgers, *Age of Fracture* (Cambridge, 2011).

¹⁰ *Ibid.*, p. 38.

breakdown of traditional frameworks and the rise of diverse perspectives.¹¹ Specifically regarding gender, Rodgers contended that traditional fixed and binary understandings began to fracture, giving rise to more fluid interpretations.¹² This shift coincided with the emergence of feminist and queer theories, LGBTQ+ activism, and broader societal changes that challenged binary notions of gender, emphasising its social construction, complexity, and diversity.

In sports, where physical prowess has continued to be paramount, the debate was particularly intense. Enhanced athletes, often likened to machines, as Professor de la Chapelle remarked in 1983, could surpass natural human limits, prompting inquiries into fairness, gender classification, and the integrity of competition.¹³ The IOC committee first encountered this issue in 1967, when a 'Proposal Presented to the Medical Commission of the International Olympic Committee' warned the IOC of potential challenges due to differing interpretations of sex.¹⁴ The paper outlined nine terms used in medical and legal classifications to categorise sex:

1. External genital appearance
2. Difference of internal organs
3. Identity of the gonads
4. Endocrine sex
5. Genetic sex
6. Sex of the cell nucleus
7. Chromosomal sex
8. Physiological sex
9. Social sex¹⁵

The document's foresight proved prescient, as before testing was even implemented. In May 1968, Dr Dirix forwarded the essay by Professor Vanden Berghe to de Mérode.¹⁶ The essay criticised the proposed chromosomal testing and highlighted the complex interplay of biological, socio-cultural, and philosophical factors in sex determination.¹⁷ This critique aimed to challenge the IOC's adherence to conventional notions of femininity and masculinity. Consequently, the emergence of post-human discourse and the rejection of a binary understanding of sex prompted scrutiny of the

¹¹ Rodgers, *Age of Fracture*, p. 174.

¹² *Ibid.*

¹³ A. de la Chapelle, 'Letter from Albert de la Chapelle to International Olympic Committee, Madame', (9 May 1983), CIO-AH B-ID04-MEDIC/036, SD1, 5754.

¹⁴ 'Proposition Presentee a la Commission Medicale du Comite International Olympique', (n.d.), CIO-AH B-ID04-MEDIC/034, SD1.

¹⁵ *Ibid.*, [original French – 1.- Apparence génitale externe, / 2.- Différence des organes internes, / 3.- Identité des gonades, / 4.- Sexe endocrinien, / 5.- Sexe génétique, / 6.- Sexe du noyau cellulaires, / 7.- Sexe Chromosomique, / 8.- Sexe physiologique, / 9.- Sexe Social].

¹⁶ A. Dirix, 'Letter from Docteur Dirix to Monseigneur', (29 May 1968), CIO-AH B-ID04-MEDIC/035, SD2.

¹⁷ H. Vanden Berghe, 'A Short Survey of the More Frequent Sex Aberrations and their Causes', (n.d.), CIO-AH B-ID04-MEDIC/035, SD2.

IOC's policies, questioning how they could justify exclusion based on a binary definition of 'women' when an athlete's sex was not so easily categorised.¹⁸

However, this dissertation contends that as the IOC became increasingly aware of developments in post-human theory, they paradoxically tightened their grip and exerted greater patriarchal control over the gender binary in sports. This aligns with Anne Balsamo's observation that the post-human turn, while potentially liberating, often reinforced existing gender differences bound by patriarchal constructions.¹⁹ Indeed, the IOC's continued reliance on outdated binary gender classifications, exemplified by chromosomal testing, underscores a regressive adherence to rigid definitions of sex, thereby perpetuating patriarchal control and limiting the recognition of diverse gender identities. Ted Butryn's research, aptly titled *Posthuman Podiums* (2000), supports this further, suggesting that despite the notion of cyborgs blurring boundaries, sports can reinforce gender distinctions by privileging male physiological traits and enforcing gender boundaries through gender testing technologies.²⁰

Ultimately, the ambiguity surrounding gender definition in the post-human turn of the 1960s, where the female body may no longer adhere to traditional notions of femininity, compelled institutions like the IOC to intensify their efforts in defining, controlling, and delineating along gendered lines. This perceived challenge to patriarchy arguably prompted increased control, as evidenced by the IOC's retention of outdated testing methods. The organisation stubbornly refused to address issues with chromosomal testing and ignored letters from concerned doctors and other critics, maintaining their stance and not engaging in a working group until 1988.²¹ This was highlighted by the paper submitted by Professor Arne Ljungqvist (Chairman of the IAAF Medical Committee) for the 1988 working group titled, 'Historical Perspective on Gender Verification'.²² He argued that femininity testing was outdated and needed to be updated based on 'recent developments in medical and psycho-social science'.²³

¹⁸ W. Reczek, 'Letter from Włodzimierz Reczek to Prince Alexandre de Mérode', (24 Oct. 1967), CIO AH B-ID04-MEDIC/035, SD2.

¹⁹ Balsamo, *Technologies*, p. 10.

²⁰ T. M. Butryn, 'Posthuman Podiums: Cyborg Narratives of Elite Track and Field Athletes', *Sociology of Sport Journal*, 20/1 (2000), p. 17-39.

²¹ A. de la Chapelle, 'Letter from Albert de la Chapelle to Comité International Olympique, Madame', (8 Mar. 1984), CIO-AH B-ID04-MEDIC/036, SD1, 4788/83; M. Berlioux, 'Letter from Monique Berlioux to Professor de la Chapelle: Femininity control', (12 Mar. 1984), CIO-AH B-ID04-MEDIC/036, SD1, 2866/84/sj; E. Hay, 'Letter from Dr. Eduardo Hay to S. A. Le Prince Alexandre de Mérode', (5 July 1985), CIO-AH B-ID04-MEDIC/036, SD2; A. de la Chapelle, 'Letter from Albert de la Chapelle to Professor Eduardo Hay', (24 Feb. 1986), CIO-AH B-ID04-MEDIC/036, SD2.

²² A. Ljungqvist, 'Historical Perspective of Gender Verification', (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

²³ *Ibid.*

Woodward's statement on twenty-first-century sport, written thirty years after the period researched in this dissertation, showcases that the sports administration world perhaps not only remained unchanged during these two decades but has yet to adapt to twenty-first-century perspectives.²⁴ It has not engaged with the post-human or feminist movements. Woodward noted, 'sport remains strongly entrenched in a binary logic of gendered identities'.²⁵ Such evidence indicates that the narrative extends beyond mere sport and politics, as previously discussed in Chapter One, now introducing fresh perspectives such as advancements in medical and scientific understanding of the gender binary. It highlights how these alternative viewpoints, which the IOC disapproved of, led to a resolute adherence to outdated notions of sex and gender, seen as biologically determined by DNA and chromosomes. This culminated in the introduction of the Barr Body Test at the Mexico City Olympics in 1968.

The Barr Body Test is a cytogenetic method historically used to determine genetic sex by identifying the presence of an inactive X chromosome in cells.²⁶ Named after Canadian anatomist Murray Barr, who discovered the Barr body in 1949, the test became significant in various contexts, including sports.²⁷ The test hinges on the principle that females inactivate one of their two X chromosomes during early embryonic development to prevent an overdose of X-linked gene expression.²⁸ This inactivated X chromosome forms a dense, compact structure within the nuclei of somatic cells in female mammals, is visible under a microscope, and is known as a Barr body.²⁹

The Barr Body Test entails collecting cells through a buccal (cheek) swab, obtained by delicately scraping or brushing the inner cheek or via a blood smear to acquire a sample of epithelial cells.³⁰ Subsequent analysis involves staining the collected cells with specific dyes which bind to the DNA.³¹ Under the microscope, the stained Barr body appears as a dark spot in the periphery of the cell nucleus.³² Typically, one Barr body is present in each somatic cell of a female, while males generally have none.

²⁴ Woodward, 'Gendered Bodies', p. 214.

²⁵ *Ibid.*

²⁶ N. Q. Ha, 'Diagnosing Sex Chromatin', *Historical Studies in the Natural Sciences*, 45/1 (2015), p. 52.

²⁷ *Ibid.*, p. 49.

²⁸ *Ibid.*, p. 81.

²⁹ *Ibid.*

³⁰ *Ibid.*, p. 78.

³¹ *Ibid.*, p. 54.

³² *Ibid.*, p. 55.

The Barr Body Test has various applications, including sex determination, particularly in cases of ambiguous genitalia at birth or forensic investigations. It is also useful in diagnosing chromosomal abnormalities such as Turner Syndrome (45,X), where individuals typically lack Barr bodies, Klinefelter Syndrome (47,XXY), where individuals have one Barr body per cell, and Triple X Syndrome (47,XXX), where individuals may have two Barr bodies per cell.³³

The Barr Body Test gained prominence in the mid-twentieth century as a method for sex verification in sports, especially at the Olympic Games. As mentioned in Chapter One, the IOC introduced sex verification testing at the Mexico City Olympics in 1968. Female athletes underwent buccal smear tests to identify Barr bodies, with their presence indicating a female genotype and eligibility to compete in the female category.

However, the Barr Body Test has limitations. It is not entirely accurate, as some cells may not exhibit Barr bodies, even in females, due to technical flaws in the test or biological reasons.³⁴ Moreover, certain chromosomal abnormalities or intersex conditions can complicate the interpretation of Barr body presence, leading to false negatives.³⁵ Within the context of the Olympic Games, these limitations led to concerns related to privacy, discrimination and the psychological impact on athletes.

The introduction of the Barr Body Test to police intersexuality and maintain the Olympics as a strictly cisgender event, as discussed in Chapter One regarding fears of intersexual Eastern Bloc competitors, also emerges from the medical history perspective of this chapter. Communications between the IOC and doctors were among the first criticisms the IOC received, and these letters reveal that, behind discussions of medical accuracy, there was a consistent effort to define femininity. Indeed, the IOC felt threatened by second-wave feminism and the post-human turn, prompting them to cling to strict notions of the gender binary based solely on the chromosomal grounds of XX and XY.

An illuminating passage from a 1982 letter written by Professor Eduardo Hay to Dr C. K. Giam, Secretary of the Medical Committee for the 12th Southeast Asian Games, vividly illustrates the rationale for using the Barr Body test to maintain the Olympics exclusively for cisgender athletes.³⁶

³³ Ha, 'Diagnosing Sex Chromatin', p. 67.

³⁴ *Ibid.*, p. 65.

³⁵ *Ibid.*

³⁶ E. Hay, 'Letter from Dr. Eduardo Hay to Dr. C. K. Giam', (25 Oct. 1982), CIO-AH B-ID04-MEDIC/035, SD4, 10913.

Hay asserted that the IOC's Medical Commission was established not only to safeguard athletes' physical well-being but also to uphold the 'Olympic Ideal of sports development and competition', specifically a need to restrict participation to traditionally defined male and female competitors.³⁷ He praised gender verification tests, arguing:

femininity control tends to exclude competitors in women [*sic*] events that do not qualify by physical and genetical condition to what is considered as a female competitor and do not present the anatomical or hormonal advantages of the male athlete.³⁸

This statement explicitly shows that the IOC was not solely concerned with preventing men from competing in female categories but aimed to exclude non-traditional male or female competitors, including intersex individuals, thus reinforcing a binary definition of gender and denying feminine status to females with gender abnormalities. Moreover, the IOC sought to regulate the specific expression of femininity deemed emblematic of physical well-being, as it would be showcased on the global platform of the Olympic Games.

Similarly, medical professionals who supported chromosomal testing celebrated its ability to detect individuals who did not fit into the gender binary, thereby supporting the IOC's commitment to enforcing normative standards of gender identity. In 1988, Dr J.-P. de Mondenard's research praised the IOC's ability to categorise athletes into distinct gender binaries, distinguishing between acceptable competitors and those with genetic variations.³⁹ His article in *Medicine Pratique* demonstrated how chromosomal testing identified three major intersex categories: pseudo-hermaphroditism, true hermaphroditism, and gonadal dysgenesis.⁴⁰ Critics of chromosomal testing, such as Professor de la Chapelle, highlighted its lack of efficacy by arguing that 80% of true hermaphrodites would go undetected.⁴¹ He used this statistic to emphasise that the current testing methods failed to exclude those he believed should not compete in the Games.⁴² To Professor de la Chapelle, this statistic highlighted the urgent need for reform. Analysis of these two documents reveals the true motivations of all parties involved, whether they supported or opposed chromosomal testing, there were fears about the presence of non-cisgender people representing the Olympic Movement.

³⁷ E. Hay, 'Letter from Dr. Eduardo Hay to Dr. C. K. Giam', (25 Oct. 1982), p. 1, CIO-AH B-ID04-MEDIC/035, SD4, 10913.

³⁸ *Ibid.*

³⁹ J.-P. de Mondenard 'Médecine du sport: sur la piste des « manipulations » sexuelles', *Medicine Pratique*, 4197 (1988), CIO-AH B-ID04-MEDIC/037, SD3.

⁴⁰ *Ibid.*, p. 34.

⁴¹ A. de la Chapelle, 'A brief critical analysis of the use of sex chromatin screening in the "femininity control" of female athletes', (n.d.), p. 4, CIO-AH B-ID04-MEDIC/035, SD4.

⁴² *Ibid.*

However, while acknowledging that it certainly contributed to the motivations behind the introduction of gender verification testing, this dissertation contends that the argument suggesting the IOC introduced such testing solely to uphold heteronormative access to Olympic competitions is not entirely accurate. Although fears of abnormal expressions of femininity existed, the notion that the IOC sought to restrict participation solely to XY and XX individuals is unsupported because no men were ever tested.⁴³ For instance, in 1978, when the IOC inquired about their testing measures, the Shooting Union responded that since the IOC did not permit 'ladies' to compete, they had no testing plans nor any need for them.⁴⁴ Similarly, in response to an administrative error at the 1984 LA Olympics that led to gender verification testing for a female athlete competing in a mixed horse riding event, the IOC issued a formal apology and emphasised that women should not be subjected to scrutiny over their femininity when participating in mixed competitions.⁴⁵ This highlights that the IOC was not primarily motivated by policing heteronormativity or excluding intersex individuals per se. Rather, their intention was to create a 'B' grade competition that could be easily defined along gendered lines, rooted in the assumption of male superiority and female inferiority.

In 1980, when Dr Monteleone wrote to Monique Berlioux about the absence of testing for men, she responded that the examinations aimed to prevent 'undue advantage' in female events.⁴⁶ She indicated that similar issues were unlikely to arise with male competitors.⁴⁷ Indeed, in this analysis of twenty-five years of correspondence between the IOC Medical Commission and others, the issue of testing a male competitor was formally proposed just once, in 1981 by B. Rüedi in his article in *Medicine et Hygiène*.⁴⁸ This double standard uncovers a frequently overlooked yet defining motive behind gender verification testing: it was not primarily about enforcing heteronormativity or excluding intersex individuals but about constructing a subordinate realm of athletic competition for women. This segregated category of competition for women imposed parameters on their feminine status, effectively establishing a competitive framework geared towards

⁴³ J. L. Rupert, 'Genitals to Genes: The History and Biology of Gender Verification in the Olympics', *Canadian Bulletin of Medical History*, 28/2 (2011), p. 340.

⁴⁴ E. Zimmermann, 'Letter from Ernst Zimmermann to Dr. Csandi: Femininity certificates', (23 Aug. 1978), CIO-AH B-ID04-MEDIC/035, SD3, 5243.

⁴⁵ A. de Mérode, 'Letter from Prince Alexandre de Mérode to Monsieur Fritz Widmer', (29 July 1985), CIO-AH B-ID04-MEDIC/036, SD2, 8445/85/sjg.

⁴⁶ M. Berlioux, 'Letter from Monique Berlioux to Professor Monteleone: Femininity tests', (27 May 1980), CIO-AH B-ID04-MEDIC/035, SD4, 5026/80/AC/dr.

⁴⁷ *Ibid.*

⁴⁸ B. Rüedi, 'La détermination du sexe des athlètes: nécessité ou aberration?', *Medicine et Hygiène*, 38/1432 (1981), pp. 2535-2537, CIO AH B-1D04-MEDIC/037, SD2.

generating women's records inherently subordinate to those achieved by men. Thus, by establishing this 'B' category, the testing policy perpetuated patriarchal systems and bolstered the binary understanding of gender.

Downhill skier Nicole Spiess summarised the matter perfectly in a remark to the *Chicago Tribune* in 1976, stating, 'If a girl is a boy, it makes a lot of difference ... but if a boy is a girl[,] it doesn't matter'.⁴⁹ Indeed, the IOC's reluctance to subject male athletes to similar gender verification testing highlights its implicit acknowledgement that genetic anomalies are not inherently disqualifying. In contrast, it is the perceived threat to the integrity of women's sports that drives the imposition of gender verification measures and thus highlights the underlying power dynamics within the Olympic Games.

Behind the veneer of twenty-four years of Barr Body testing and justifications such as fair play, preserving the Games for cisgender individuals, or even countering the Eastern Bloc's rising success, lay a nuanced discourse of dissent and protest against IOC policies. It is notable that medical professionals took centre stage in the initial critical discussions about the test. Nevertheless, embedded within their scientific critique was an underlying preoccupation with a rigidly defined concept of 'femininity'.

Indeed, in stark contrast to the perspectives of Professor Hay and de Mérode, Professor de la Chapelle and Professor Ljungqvist emerged as significant dissenting voices, vehemently opposing the utilisation of chromatin screening through the Barr Body test.⁵⁰ Professor de la Chapelle pioneered early opposition against the IOC's approach to gender verification in sports. He particularly took issue with the IOC's reliance on chromosomal testing, positing that gender in sport transcends the simplicity of XX or XY chromosomal structures, thereby highlighting the impact of the post-human turn on Professor de la Chapelle's rationale.⁵¹ Similarly, Professor Ljungqvist, a Swedish sports physician and former IOC member, later assumed a key role as the head of the IAAF Medical Commission, thus solidifying his prominence in the domains of anti-doping and medical issues in sports.

⁴⁹ 'Olympic Sex Tests Designed to Tell Jacques from Jills', *Chicago Tribune*, (3 Feb. 1976), p. 40 col b.

⁵⁰ E. Hay, 'Letter from Dr. Eduardo Hay to S. A. Le Prince Alexandre du Mérode', (4 Feb. 1986), CIO-AH B-ID04-MEDIC/036, SD2; A. de la Chapelle, 'The Use and Misuse of Sex Chromatin Screening for Gender Identification of Female Athletes', *Journal of American Medical Association*, 256/14 (1986), p. 1920.

⁵¹ A. de la Chapelle, 'Why Sex Chromatin Screening should be abandoned as a Method of Gender Verification', (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

While these two key figures underscored the complexity and evolution of the debate surrounding gender verification in sports, the first pivotal document the IOC received, condemning medical policy on strictly medical grounds, was a memorandum from five Danish doctors sent in 1972.⁵² Delivered via Gudmund Schack, President of the Danish Olympic Committee, the memorandum was titled ‘On the Use of Sex Chromatin Investigation of Competitors in Women’s Divisions of the Olympic Games’.⁵³ This paper was profoundly significant for its time, as it marked the initial complaint against the IOC that utilised notions of scientific unsuitability to argue against the test’s ethical validity and focused further on whom the test excluded and its accuracy.

The memorandum argued that the IOC’s ‘demand’ for testing of all female participants was ‘open to criticism’ on both medical and ethical grounds.⁵⁴ It contended that the IOC’s decision to define sex based solely on chromosomes, labelling females as sex chromatin-positive individuals and non-females as sex chromatin-negative, was fundamentally flawed.⁵⁵ The five doctors argued that sex was a combination of chromosomal, somatic, and psychosocial factors, not solely determined by chromosomes.⁵⁶

Moreover, the memorandum raised concerns regarding the specifics of the test. It highlighted that the Barr Body Test solely yielded information about the number of X chromosomes, failing to discern the presence of a Y chromosome or any structural abnormalities.⁵⁷ Consequently, individuals with varying chromosomal configurations could yield identical test results, resulting in erroneous disqualifications. For instance, males with a 47, XXY karyotype and females with a typical 46, XX karyotype could both test positive.⁵⁸

Additionally, the memorandum brought to light numerous instances where women faced unjust exclusion from competition due to the limitations of the test. It outlined conditions affecting approximately one in two thousand women, leading them to appear sex chromatin negative on the

⁵² E. Strömngren, J. Nielsen, M. Ingerslev, G. B. Petersen and A. J. Therkelsen, ‘A Memorandum on the Use of Sex Chromatin Investigation of Competitors in Women’s Divisions of the Olympic Games’, (3 Feb. 1972), CIO-AH B-ID04-MEDIC/035, SD2.

⁵³ G. Schack, ‘Letter from Gudmund Schack to Sirs’, (18 Feb. 1972), CIO-AH B-ID04-MEDIC/035, SD2, 869 GS/IM.

⁵⁴ E. Strömngren, J. Nielsen, M. Ingerslev, G. B. Petersen and A. J. Therkelsen, ‘A Memorandum on the Use of Sex Chromatin Investigation of Competitors in Women’s Divisions of the Olympic Games’, (3 Feb. 1972), CIO-AH B-ID04-MEDIC/035, SD2.

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*, p. 4.

⁵⁸ *Ibid.*

Barr Body Test.⁵⁹ These conditions included ovarian dysgenesis, where 60% test negative, with 90% of those having the karyotype 45, X0; pure gonadal dysgenesis, typically associated with a 46, XY karyotype; and testicular feminization, characterised by a 46, XY karyotype but with tissues insensitive to male hormones, leading to the development of a female embryo.⁶⁰ Even though these individuals had female psychosocial sex and no athletic advantage, they were disqualified based on the test results.

Ultimately, the memorandum asserted that the definition of sex was too intricate to be decisively determined and castigated the test's scientific validity.⁶¹ It strongly advocated for the IOC's total abandonment of the test, underlining its ineffectiveness in accurately determining chromosomal sex.⁶²

In summary, the 1972 memorandum from the Danish doctors marked a seminal moment in the discourse on gender verification in sports. It challenged the IOC's approach on both medical and ethical grounds, advocating for a more nuanced understanding of sex beyond chromosomal determinants. Notably, between 1968 and 1972, there had been minimal criticism on medical grounds regarding gender verification in sports, which underscored the significance of the Danish doctors' memorandum as the first substantial challenge to the IOC's policies. At that time, patriarchy was largely invisible to many, and the debate centred more on scientific accuracy and integrity than on women's rights. The Danish doctors were unique in leveraging both scientific inaccuracies and the detrimental impact of such testing on women's well-being, even labelling the testing as discriminatory, in order to urge the IOC to change its policy. However, this dual focus was quite exceptional. When the next wave of criticism emerged in the early 1980s, prompting the formation of the 1988 working group, the focus had narrowed significantly. Critics seemed to disregard the impact on women, concentrating instead on the accuracy of testing. The IOC appeared more concerned with finding the most administratively effective and time-efficient testing method, relegating the impact on female athletes' bodies and minds to a secondary consideration. In this context, scientific precision, rather than the well-being of female athletes, remained the primary focus.

⁵⁹ E. Strömberg, J. Nielsen, M. Ingerslev, G. B. Petersen and A. J. Therkelsen, 'A Memorandum on the Use of Sex Chromatin Investigation of Competitors in Women's Divisions of the Olympic Games', (3 Feb. 1972), p. 4, CIO-AH B-ID04-MEDIC/035, SD2.

⁶⁰ *Ibid.*

⁶¹ *Ibid.* p. 6.

⁶² *Ibid.*

Indeed, in 1982, the Secretary of the Medical Committee for the 12th Southeast Asian Games wrote to de Mérode, citing a paper submitted by Professor Wong, Head of the Paediatrics Department at the National University of Singapore and Principal Investigator at the World Health Organising Collaborating Centre for Human Genetics.⁶³ The paper, titled ‘Femininity Control in Sports’, concluded that the IOC’s recommended screening was inadequate for excluding ‘non-bona fide female competitors’.⁶⁴ Wong highlighted that individuals with congenital adrenal hyperplasia, true hermaphrodites, pure gonadal dysgenesis, and 46, XX males would not be detected as sex chromatin positive, thus incorrectly permitting their participation in the female category of sporting competitions.⁶⁵ There was no mention of the impact of the testing on the female body, as critics in the early 1980s viewed the issue solely through a medical lens. However, the concept of a “‘bona fide’ female competitor’ reinforced the notion that beneath scientific scrutiny lay doctors’ underlying fixation on defining femininity.⁶⁶

Similarly, in 1982, Professor de la Chapelle’s essay, ‘A brief critical analysis of the use of sex chromatin screening in the “femininity control” of female athletes’, delved into the intricate nuances of utilising sex chromatin screening.⁶⁷ While this essay did acknowledge the impact on women, citing the potential for psychological damage and violation of women’s rights, a significant portion of the discourse was dedicated to evaluating the efficacy of both X and Y chromatin assessments.⁶⁸ Professor de la Chapelle asserted the high reliability of X chromatin screening, emphasising that the presence of one X chromatin body within cell nuclei indicated a likely genetic composition of 46, XX.⁶⁹ Conversely, a negative result in the Barr Body Test signalled the absence of X chromatin, suggesting a singular X chromosome, potentially indicating an XY or XO karyotype.⁷⁰ This method was deemed by Professor de la Chapelle as highly dependable.⁷¹ Conversely, scrutiny was directed towards the Y chromatin test due to significant technical

⁶³ C. K. Giam, ‘Letter from Dr C K Giam to Chairman, Medical Commission’, (5 Oct. 1982), CIO-AH B-ID04-MEDIC/035, SD4, 9960.

⁶⁴ *Ibid.*

⁶⁵ H.-B. Wong, ‘Femininity Control in Sports’, (1983), CIO-AH B-ID04-MEDIC/035, SD4, 9960.

⁶⁶ *Ibid.*, p. 2.

⁶⁷ A. de la Chapelle, ‘A brief critical analysis of the use of sex chromatin screening in the “femininity control” of female athletes’, (n.d.), CIO-AH B-ID04-MEDIC/035, SD4.

⁶⁸ *Ibid.*, p. 2, 5.

⁶⁹ *Ibid.*, p. 2.

⁷⁰ *Ibid.*, p. 2, 3; The XO karyotype is a genetic condition occurring in females, where one of the two X chromosomes is completely or partially absent. Consequently, affected individuals typically have only one sex chromosome, which is usually an X chromosome. This condition is associated with Turner syndrome, characterised by various developmental and medical features such as short stature, amenorrhoea, and infertility due to the absence of a second sex chromosome (Y or X).

⁷¹ *Ibid.*, p. 2.

challenges and unreliability, ‘even when performed by an experienced examiner’.⁷² These examples underscore a focus neither on the treatment of women nor the appropriateness of defining sex chromosomally but rather on the intricate medical complexities inherent in such policies.

Following his participation in the 1985 IAAF Sports Medicine Conference, held on 1 and 2 October, at the World Championships in Canberra, Australia, Professor Hay corresponded with de Mérode.⁷³ During this exchange, he acknowledged the imperative for the IOC to address the issue of gender verification.⁷⁴ However, the driving force behind this recognition was not solely the unacceptable treatment of women; rather, it originated from the realisation that if the detection rate remained at only 30%, potentially crucial cases could be missed, prompting consideration for eliminating the controls altogether.⁷⁵

This momentum for discussion persisted, and as the Calgary Winter Olympics of 1988 approached, Dr Edward Bruce Challis, a member of the Calgary Organising Committee, engaged in conversations with Professor de la Chapelle regarding concerns about the accuracy of the current sex testing procedures.⁷⁶ These dialogues proved pivotal in the subsequent decision by the IOC to convene a working group of doctors to assess this issue and marked a significant turning point in the discourse.

Indeed, Professor de la Chapelle, in his correspondence with Dr Baynton, Director of the Calgary Olympic Doping Control Centre, in March 1987, not only advocated against the use of the Barr Body Test but furthermore urged the Centre to abstain from any testing, thus advocating for the complete abolition of gender verification testing.⁷⁷ Nonetheless, the rationale behind this advocacy remained grounded in scientific accuracy. Professor de la Chapelle cited a case study involving a ‘perfectly normal lady from a Western country’ who, upon being subjected to sex chromatin screening prior to a sports event in an Asian capital, was deemed ineligible to compete due to a positive Y chromatin result.⁷⁸ This not only demonstrated a dismissive approach towards a female

⁷² A. de la Chapelle, ‘A brief critical analysis of the use of sex chromatin screening in the “femininity control” of female athletes’, (n.d.), p. 2, CIO-AH B-ID04-MEDIC/035, SD4.

⁷³ E. Hay, ‘Letter from Dr. Eduardo Hay to Mousigneur [sic] Le Prince Alexandre de Mérode’, (17 Oct. 1985), CIO-AH B-ID04-MEDIC/036, SD2.

⁷⁴ *Ibid.*, p. 2.

⁷⁵ *Ibid.*, p. 2.

⁷⁶ E. B. Challis, ‘Letter from E. B. Challis to Albert de la Chapelle’, (18 Mar. 1987), CIO-AH B-ID04-MEDIC/036, SD2.

⁷⁷ A. de la Chapelle, ‘Letter from Albert de la Chapelle to Dr. R. Baynton’, (2 Mar. 1987), CIO-AH B-ID04-MEDIC/036, SD2.

⁷⁸ *Ibid.*, p. 1.

athlete but also highlighted the doctors' reliance on and adherence to a category termed 'normal', along with their refusal to acknowledge any category beyond the norm. Three months later, while under psychiatric care following an incident, it was discovered that the same lady possessed a normal 46, XX karyotype with an unusually large and brightly fluorescent satellite on one chromosome number 15.⁷⁹ Professor de la Chapelle's own research on Y chromosomes suggested that such false positives could occur in 6-15% of cases, with higher incidence rates observed when using buccal mucosa smears compared to other samples.⁸⁰ Lobbying the Centre to recognise the urgency and importance of refusing to comply with the IOC's request to prepare testing equipment for the 1988 Winter Olympics, Professor de la Chapelle concluded his letter to Dr Baynton by suggesting potential legal consequences.⁸¹ He indicated that if he were the aforementioned athlete, he would contemplate suing for malpractice and even offered to serve as her consultant in court.⁸²

Between 1977 and 1988, there was a significant increase in letters from doctors criticising the IOC MC's testing regime. According to Professor de la Chapelle, this influx reflected the growing recognition that utilising sex chromatin screening for gender verification since 1968 was deemed a 'serious mistake', albeit one that was somewhat 'understandable in view of the limited scientific basis available at the time'.⁸³ However, he contended that understandings of sex had advanced since then and sex chromatin screening was now viewed as 'the least significant parameter of sex in the sports context', therefore urging the IOC to change their policy.⁸⁴

This perspective was widely endorsed, exemplified by a letter from IOC member Mary A. Glen-Haig to de Mérode in December 1987.⁸⁵ Glen-Haig detailed how prominent geneticists in England had approached her, urging correspondence with the IOC Medical Commission, to advocate for the abandonment of sex chromatin testing, highlighting its rejection by clinicians and research scientists.⁸⁶

⁷⁹ A. de la Chapelle, 'Letter from Albert de la Chapelle to Dr. R. Baynton', (2 Mar. 1987), p. 1, CIO-AH B-ID04-MEDIC/036, SD2.

⁸⁰ *Ibid.*

⁸¹ *Ibid.*

⁸² *Ibid.*

⁸³ A. de la Chapelle, 'Letter from Albert de la Chapelle to Prince Alexandre de Mérode', (31 July 1987), p. 1, CIO-AH B-ID04-MEDIC/036, SD2.

⁸⁴ *Ibid.*

⁸⁵ M. A. Glen-Haig, 'Letter from M. A. Glen Haig to Prince de Mérode', (30 Dec. 1987), CIO-AH B-ID04-MEDIC/037, SD1, 66.

⁸⁶ *Ibid.*

Similarly, this period witnessed a surge in the engagement of medical societies with the IOC Medical Commission, notably societies from the USA. For example, the American Society of Human Genetics wrote to de Mérode on 23 November 1987, informing him of their adoption of ‘A Resolution on Gender Verification of Female Athletes’ on 9 October 1987.⁸⁷ This resolution expressed concerns about potential harm to ‘undeniably female’ competitors and urged the IOC to form an expert panel to better define the purpose of screening and identify optimal methods for achieving this aim.⁸⁸ Both medical societies’ and the IOC’s perception that the female category was under threat underscored the urgency of addressing these issues comprehensively and collaboratively. Communications from these medical societies marked a pivotal moment, raising questions about the IOC’s engagement with, or disregard for, advancements in scientific understanding. Additionally, societies, including the American College of Physicians, the American College of Obstetricians and Gynecologists, and the Human Genetics Society of Australasia, also passed resolutions.⁸⁹ Their concerted efforts redirected the discourse from solely focusing on biological determinants to cultivating a more nuanced understanding of gender within the realm of sports. This was exemplified when, in July 1988, Cyril Chapman, President of the Human Genetics Society of Australasia, wrote to de Mérode, emphasising his Society’s mandate for him to correspond with the IOC.⁹⁰ While acknowledging the complexity of the subject, he stressed the imperative for the IOC to undertake a review ‘in light of modern knowledge of the biology of sex, and recent improvements in genetic methodologies’.⁹¹ Chapman referenced previous correspondence between Professor de la Chapelle and Professor Joe Leigh Simpson.⁹² In November 1987, Simpson wrote on behalf of numerous medical geneticists worldwide, underlining the urgency for the IOC to address the issue of gender verification testing.⁹³ Ultimately, he urged the formation of an ad hoc committee to review the problem of gender assignment methods currently in use.⁹⁴

⁸⁷ S. M. Gartler, ‘Letter from Stanley M. Gartler to Prince Alexandre de Mérode’, (23 Nov. 1987), CIO-AH B-ID04-MEDIC/036, SD2, 12264; ‘A Resolution on Gender Verification of Female Athletes’ (9 Oct. 1987), CIO-AH B-ID04-MEDIC/036, SD2, 12264.

⁸⁸ *Ibid.*

⁸⁹ J. R. Ball, ‘Letter from John R. Ball to Prince de Mérode’, (3 Feb. 1988), CIO-AH B-ID04-MEDIC/037, SD1, 2403.; H. A. Kaminetzky, ‘Letter from Harold A. Kaminetzky to Prince Alexandre de Mérode’, (7 Mar. 1988), CIO-AH B-ID04-MEDIC/037, SD1, 3115; C. Chapman, ‘Letter from Cyril Chapman to Prince Alexandre de Mérode’, (4 July 1988), CIO-AH B-ID04-MEDIC/037, SD1, 6635.

⁹⁰ C. Chapman, ‘Letter from Cyril Chapman to Prince Alexandre de Mérode’, (4 July 1988), CIO-AH B-ID04-MEDIC/037, SD1, 6635.

⁹¹ *Ibid.*

⁹² *Ibid.*

⁹³ *Ibid.*

⁹⁴ *Ibid.*

In 1988, Professor Ljungqvist was invited to co-lead the IOC MC's working group for sex testing alongside Professor Hay, with Professor de la Chapelle also participating.⁹⁵ Professor de la Chapelle's paper presented to the group underscored two key reasons why X-chromatin screening failed to align with the IOC's stated goal of preventing 'male imposters from participating in female sporting events', leading to his recommendation for its abandonment.⁹⁶ Professor de la Chapelle's central argument was based on the inadequacy of chromatin screening in accurately predicting certain physical characteristics, with only a 10% detection rate.⁹⁷ Beyond scientific rationale, ethical considerations were also raised, citing legal implications when contending that existing testing methods subjected athletes to harassment and should thus be revised.⁹⁸

This paper trail suggests that the IOC's decision to convene a working group of experts in Lausanne in July 1988 was prompted by the medical issues raised by these societies and doctors. Indeed, as aforementioned, the paper submitted by the co-lead of the group, Professor Ljungqvist, was titled 'Historical Perspective of Gender Verification'.⁹⁹ The paper argued that femininity testing should align with the latest advancements in medical and psycho-social science, emphasising that current methods were falling short of this standard.¹⁰⁰

The notion that the IOC was responding to concerns regarding the medical accuracy of the test was also evident in their responses to concerned doctors or societies who wrote to the Commission from March 1988 onwards. In their replies, they stated:

Conscious of the comments received from various bodies, the IOC Medical Commission has established a working group in order to study this matter in more detail and report its findings to the Commission. Your address will be forwarded to the working group.¹⁰¹

This evidence underscores the pivotal role widespread communication and criticism played in compelling the IOC to establish the working group in 1988 and subsequently revise its policy in 1992.

⁹⁵ A. Ljungqvist, 'Letter from Arne Ljungqvist to Jane', (18 Mar. 1988), CIO-AH B-1D04-MEDIC/037, SD1, 2980.

⁹⁶ A. de la Chapelle, 'Why Sex Chromatin Screening should be abandoned as a Method of Gender Verification', (n.d.), p. 1, CIO-AH B-ID04-MEDIC/037, SD2.

⁹⁷ 'Sexing of Female Athletes', *Lancet*, 330/8560 (1987), pp. 667-668.

⁹⁸ L. M. Bassis, 'Sex Chromatin Screening of Female Athletes', *Journal of American Medical Association*, 257/14 (1987), pp. 1896-1897.

⁹⁹ A. Ljungqvist, 'Historical Perspective of Gender Verification', (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

¹⁰⁰ *Ibid.*

¹⁰¹ A. de Mérode, 'Letter from Prince Alexandre de Mérode to Doctor John R. Ball', (17 Mar. 1988), CIO-AH B-1D04-MEDIC/037, SD1, 1787/88/sjg; A. de Mérode, 'Letter from Prince Alexandre de Mérode to Dr. A. W. Johnston', (17 Mar. 1988), CIO-AH B-1D04-MEDIC/037, SD1, 1788/88/sjg; A. de Mérode, 'Letter from Prince Alexandre de Mérode to Dr. Harold A. Kamiensky', (31 Mar. 1988), CIO-AH B-1D04-MEDIC/037, SD1, 2186/88/sjg.

Reflecting on the discourse surrounding testing and its intersection with patriarchal structures, it becomes evident that while various stakeholders may have engaged in debates regarding the methodologies and nuances of testing, their underlying motivations remained tethered to the preservation of patriarchal frameworks and clearly defined traditional gender categories. This perspective was echoed in Professor de la Chapelle's correspondence with Dr Dirix in November 1987, in which he posited that individuals such as de Mérode and Professor Hay resisted change due to their belief that alternatives must precede any dismantling of existing systems.¹⁰² This notion not only offers a unique perspective on the dynamics of scientific progress and paradigm shifts but also underscores the profound significance attributed to maintaining patriarchal hierarchies. Thus, despite divergent viewpoints on the particulars of testing procedures, the overarching objective remained the perpetuation of patriarchal dominance and control of the female athlete.

In conclusion, the IOC's three-year delay in forming the working group, despite Professor Hay's 1985 plea to de Mérode acknowledging the need for change, reflected the organisation's adherence to outdated binary definitions of sex.¹⁰³ This reluctance stemmed from an unwillingness to modernise in line with societal shifts, such as the post-human turn and second-wave feminism. Indeed, medical communications reveal the IOC's fear of these societal shifts and the perceived 'threat' to the gender binary. Ultimately, as societal ideas regarding gender became more fluid, the IOC sought to maintain rigid distinctions between male and female, chromatin-negative and chromatin-positive bodies and thereby introduced the Barr Body Test.

In contrast, the decision to establish the 1988 working group and engage with the decade-long conversations advocated by medical specialists demonstrated the IOC's responsiveness to societal views on the matter. However, this dissertation posits that this action was driven more by social pressure than by a fundamental shift in the IOC's beliefs about the binary nature of sex. Although the main protagonists may have been blind to patriarchy and its impact on the female body and mind, they could not ignore the mounting discontent toward the IOC.

Thus, when viewed through a medical lens, the imposition of the Barr Body Test at Olympic events could be perceived as a deliberate attempt to resist social changes and uphold obsolete

¹⁰² A. de la Chapelle, 'Letter from Albert de la Chapelle to Professeur Albert Dirix', (24 Nov. 1987), p. 2, CIO-AH B-ID04-MEDIC/036, SD2.

¹⁰³ E. Hay, 'Letter from Dr. Eduardo Hay to S. A. Le Prince Alexandre de Mérode', (5 July 1985), p. 2, CIO-AH B-ID04-MEDIC/036, SD2.

notions of binary sex. While the formation of the 1988 working group might superficially appear to signal a response to growing societal awareness of women's rights and the discriminatory nature of the test, in reality, the IOC Medical Commission was coerced into action by the overwhelming deluge of letters and criticism they received therein. The formation of a group does not in and of itself signify a genuine paradigm shift in the IOC's medical outlook.

CHAPTER 3 – SOCIETY'S CRITIQUE:

FROM DIAGNOSTIC LANGUAGE TO WOMEN'S RIGHTS

Over the twenty-four years of chromatin screening for gender verification, a fervent and divisive debate emerged concerning not only its medical efficacy, as mentioned in Chapter Two but also its societal appropriateness. This debate illuminated a range of historical actors who critiqued the IOC, modifying their rhetoric to align with societal shifts and populist movements to amplify pressure on the organisation to implement changes.

Examination of letters received by the IOC further reveals a gendered disparity in the approach taken to criticise the institution. While few women dared to voice dissent, those who did, such as Britons Dr Elizabeth Ferris and Dame Mary Alison Glen-Haig, one of the earliest female IOC members, pointed out scientific deficiencies, even drawing on academic backing from male doctors in the UK.¹ They employed principles of scientific critique, as detailed in Chapter Two, to advocate for women's emancipation from the confines of a patriarchal structure. This strategy likely reflected their belief that critiques from a woman would be taken more seriously if grounded in scientific fact rather than framed solely as demands for women's rights.

In contrast, the majority of critiques directed at the IOC originated from male physicians or Presidents of NOCs, who during this era were also predominantly comprised of men. Within these criticisms, a consistent theme emerged: a paternalistic inclination to shield female athletes from the potential harm of such medical testing, underscoring the prevailing patriarchal framework within which they operated. Another notable trend is the evolution of the language employed in criticising the IOC, developing alongside the advancement of women's rights and increased scientific awareness of mental health. By the late 1970s and early 1980s, as equality laws were formalised, arguments began to pivot towards violations of rights. Similarly, the improved understanding of mental health, especially after the publication of the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) in 1980, also prompted critics to employ

¹ E. Ferris, 'Telex from dr elizabeth ferris (liz) to monique', (9 Nov. 1979), CIO-AH B-ID04-MEDIC/035, SD2, 1652; M. A. Glen-Haig, 'Letter from M. A. Glen Haig to Prince de Mérode', (30 Dec. 1987), IOC HA, B-ID04-MEDIC/037, SD1, 66.

formal diagnostic terminology to underscore the psychological toll inflicted by IOC policies on female athletes.²

Consequently, an examination of the critiques directed at the IOC and its unwavering defence of indefensible practices exposes a dichotomy: one narrative depicts a gendered dynamic of female empowerment against male paternalism, while another showcases male critics strategically leveraging linguistic advancements to garner public support against the IOC. The juxtaposition of paternalistic tones and tactics aimed at mass mobilisation within the same correspondences offers troubling insights. It reveals Cold War societies' embrace of the patriarchal notion that the female body required protection. Furthermore, the reality is that it was the critics of the IOC, rather than the organisation itself, who adapted and exploited linguistic advancements. This emphasises the perception of the IOC as a stagnant entity, adhering to outdated norms reminiscent of Avery Brundage's presidency in the 1960s. Consequently, this perpetuates patriarchal dominance over female athletes.

In their criticisms of the IOC, women like Mary Glen-Haig and Dr Ferris avoided the paternalistic tactic of citing the need to protect women, a tactic often employed by their male counterparts. Instead, they grounded their arguments in academic support and scientific critique, fundamentally challenging the IOC medical policy. For example, to navigate the 'very technical' subject, Mary Glen-Haig sought the expertise of what she described as 'three eminent medical men': British geneticists Professor Geoffrey Dawes, Emeritus Professor of Research at Oxford University; Professor Tim Chard, Gynaecologist at St Bartholomew's Hospital; and Professor Martin Bobrow, a physician at the Paediatric Research Unit at Guy's Hospital in London.³ These 'medical men' recommended the IOC abandon the outdated sex chromatin test.⁴ Despite acknowledging the influential role the IOC played in setting global sports standards and expressing reluctance to challenge their authority, Glen-Haig conveyed that these experts recommended a policy shift based on contemporary scientific understanding.⁵ They noted that sex chromatin testing had been

² M. Wilson, 'DSM-III and the Transformation of American Psychiatry: A History', *American Journal of Psychiatry*, 150/3 (1993), p. 399; DSM-III refers to the Diagnostic and Statistical Manual of Mental Disorders, Third Edition. Published by the American Psychiatric Association in 1980, it marked a significant shift in psychiatric diagnosis by introducing a more standardised approach to classifying mental health disorders. DSM-III played a pivotal role in shaping modern psychiatric practice and research, providing clinicians with a common language and framework for diagnosing mental disorders.

³ M. A. Glen-Haig, 'Letter from M. A. Glen Haig to Prince de Mérode', (30 Dec. 1987), CIO-AH B-ID04-MEDIC/037, SD1, 66 [emphasis in original].

⁴ *Ibid.*

⁵ *Ibid.*

‘abandoned by clinicians and research scientists’ and advised the IOC to follow suit.⁶ Interestingly, despite being an acclaimed doctor in her own right, Dr Ferris also enlisted the academic support of her colleagues to strengthen her critiques of the IOC on scientific grounds.⁷ In an October 1979 telex to Monique Berlioux, she emphasised, ‘as i mentioned in my letter, ... the view i put forward re the sex test has academic support here in great britain’, highlighting that a woman’s opinion alone was deemed insufficient without the validation of other academics.⁸ Moreover, Dr Ferris’ criticisms departed from the focus on protecting women from harm, a common theme among many male critics. Instead, her scrutiny centred on the ‘fundamental flaw in the underlying assumption in the way the Femininity Control test was devised’ and its unjust consequences for female athletes.⁹ In her 1988 submission to the IOC Medical Commission’s working group for gender verification, Dr Ferris advocated for a new testing method centred on fairness and accuracy.¹⁰ The proposal, co-submitted by Dr Ferris and Dr Ferguson-Smith, advocated for the implementation of an international code of practice and the implementation of spot checks to verify athletes’ eligibility.¹¹ These examples highlight how Dr Ferris and Glen-Haig adopted scientific criticism to challenge the IOC, standing in stark contrast to the paternalistic tones prevalent in male critiques, which frequently relied on notions of women’s protection to rally widespread support.

Indeed, the submissions presented to the IOC’s 1988 working group on gender verification exemplified a clear disparity in the approaches to criticism, and these submissions were delineated along gender lines. While Dr Ferris criticised the medical precision of the test in identifying fraudulent competitors, Professor Arne Ljungqvist cast doubt on whether the test was truly essential for the ‘protection’ of women’s sports.¹² Professor Ljungqvist’s paper unveiled his conviction that the core intent of gender verification policy was to shield female athletes from the potential harm posed by fraudulent entries, thereby exposing protective undertones.¹³ Thus, in contrast to female critics, Professor Ljungqvist exemplified a prevailing cultural paradigm in which male doctors, occupying elite and influential roles, assumed the responsibility to safeguard and

⁶ M. A. Glen-Haig, ‘Letter from M. A. Glen Haig to Prince de Mérode’, (30 Dec. 1987), CIO-AH B-ID04-MEDIC/037, SD1, 66.

⁷ E. Ferris, ‘Telex from dr elizabeth ferris (liz) to monique’, (9 Nov. 1979), CIO-AH B-ID04-MEDIC/035, SD2, 1652

⁸ *Ibid.*

⁹ E. Ferris, ‘Letter from liz to my dear Monique’, (19 Dec. 1979), CIO-AH B-ID04-MEDIC/035, SD4, 8734.

¹⁰ M. A. Ferguson-Smith and E. Ferris, ‘Gender Verification in Sport – The Need for Change?’, (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

¹¹ *Ibid.*

¹² A. Ljungqvist, ‘Historical Perspective of Gender Verification’, (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

¹³ *Ibid.*

care for women. This stance arguably reinforced the traditional perception of men as patriarchs within families, tasked with protecting their dependents.

Similar themes of this subconscious perpetuation of patriarchal norms emerged in the communications between Professor Hans Howald, Head of the Research Institute of the Swiss School for Physical Education and Sports, and Professor de la Chapelle in 1987.¹⁴ Professor Howald defended gender verification testing, asserting that the IOC acted in the best interest of ‘poor girls’ who failed the test, by ensuring confidentiality and sensitive handling of individual cases.¹⁵ Professor Hans Howald concluded his correspondence with Professor de la Chapelle by attempting to dismiss the latter’s proposal for reform, posing the hypothetical question, ‘Would you be pleased if your daughter had to go undergo such an inspection in an Olympic Village far away from home?’¹⁶ Professor Howald’s language, referring to female athletes as ‘poor girls’ and invoking the hypothetical scenario of ‘your daughter’ undergoing inspection, diminished the agency of female athletes and reinforced paternalistic attitudes aimed at protecting and defending these women. Furthermore, despite Professor de la Chapelle’s longstanding advocacy for female athletes, including his call for the outright abolition of gender verification testing from 1987 onwards, his reply overlooked Professor Howald’s paternalistic language.¹⁷ Professor de la Chapelle’s response also employed the analogy of ‘my daughter’, suggesting his involvement in perpetuating patriarchal norms and the culture of male doctors safeguarding female athletes.¹⁸ Despite their aim to champion women’s rights and eliminate discrimination through gender verification testing, Professors Howald and de la Chapelle inadvertently contributed to the marginalisation of female athletes. Their actions perpetuated a paternalistic ethos of protection, inadvertently reinforcing the notion of female dependency on men. This paradoxically bolstered the entrenched dominance of patriarchal culture, arguably emboldening the IOC’s introduction of medical testing in 1968.

A further theme that emerged from the analysis of primary sources from this period, extending beyond the gendered divide, was the juxtaposition of continuity and change in the themes utilised

¹⁴ H. Howald, ‘Letter from Prof. Hans Howald to Professor de la Chapelle’, (7 Dec. 1987), CIO-AH B-ID04-MEDIC/037, SD1, 12739; A. de la Chapelle, ‘Letter from Albert de la Chapelle to Prof. Hans Howald’, (22 Dec. 1987), CIO-AH B-ID04-MEDIC/037, SD1.

¹⁵ H. Howald, ‘Letter from Prof. Hans Howald to Professor de la Chapelle’, (7 Dec. 1987), p. 1, CIO-AH B-ID04-MEDIC/037, SD1, 12739.

¹⁶ *Ibid.*, p. 2.

¹⁷ A. de la Chapelle, ‘Letter from Albert de la Chapelle to Prof. Hans Howald’, (22 Dec. 1987), CIO-AH B-ID04-MEDIC/037, SD1.

¹⁸ *Ibid.*, p. 2.

by critics when assessing the IOC. A significant criticism consistently raised by male critics, aiming to dissuade the IOC from implementing gender testing of female athletes, centred on the imperative to shield women from potential embarrassment. An illustrative incident occurred in April 1968, six months before the inaugural use of testing at the Olympic Games in Mexico later that year. Mr G. Craig, Secretary of the New Zealand Olympic and British Commonwealth Games Association, engaged in correspondence with Mr Westerhoff and conveyed the reservations of the New Zealand Federation of Sports Medicine regarding the proposed testing process.¹⁹ Craig was responding to the IOC's letter dated 1 April 1968, which detailed the planned implementation of the Buccal Smear Test for chromatin screening at the upcoming Olympic Games in Mexico, set for October of that year.²⁰ The New Zealand Federation of Sports Medicine highlighted the complexity of female identity, emphasising that it extended beyond a mere 'Buccal smear test to determine whether one woman would have an athletic advantage over another'.²¹ Most notably, the organisation advocated that 'the minimum should be done to establish sex and spare embarrassment to the athlete'.²² Their deliberate language choice, especially in emphasising the need to prevent embarrassment, brought attention to the ethical concerns many believed the IOC was overlooking. This plea for sensitivity in gender verification protocols also revealed the pattern of a masculine inclination to safeguard and advocate for female athletes. The focus on preserving dignity and the desire to protect athletes' privacy gained heightened significance when considering the possible consequences of publicity.

Interestingly, the IOC seemed to be aware of the issue of publicity surrounding the gender verification testing of female athletes. This awareness was evident in 1981 when Professor Eduardo Hay wrote to Monique Berlioux, highlighting the necessity for secrecy to prevent public humiliation for the women involved.²³ He emphasised that in the majority of cases, the women were unaware and not culpable for any detected 'malformation'.²⁴ However, the belated acknowledgement of this concern, fifteen years into the testing regime, left the IOC vulnerable to criticism regarding the public nature of their testing and its potential psychological impact on female athletes. For instance, in a 1967 letter from Włodzimierz Reczek, President of the Polish Olympic Committee, to de Mérode, Reczek voiced concerns about the 'improper publicity,

¹⁹ G. Craig, 'Letter from G. Craig to Mr J. W. Westerhoff', (22 Apr. 1968), CIO-AH B-ID04-MEDIC/035, SD2.

²⁰ *Ibid.*

²¹ *Ibid.*

²² *Ibid.*

²³ E. Hay, 'Letter from E. Hay to Madame Monique Berlioux', (12 Feb. 1981), CIO-AH B-ID04-MEDIC/035, SD4, 1423.

²⁴ *Ibid.*, p. 3.

unnecessary discussion, and controversial opinions’ stemming from ‘sex examinations ordered by certain international sport federations’.²⁵ Although the IOC had not yet implemented testing at an Olympic Games, Reczek’s accusation that those organisations already conducting tests were violating ‘elementary ethics’ by breaching athletes’ privacy, a matter that should have been safeguarded by the discretion of the medical profession, serves as an unmistakable foreshadowing of the challenges the IOC would encounter in the ensuing decades.²⁶

Indeed, despite assertions of safeguarding the female athlete, the IOC encountered significant criticism due to the potentially public nature of the testing process. While athletes could discreetly withdraw from competition upon initial chromatin test failure, often citing injury as a reason for departure to evade further scrutiny, the press and fellow athletes frequently inferred the cause to be their gender verification status, thereby fostering assumptions and speculation.²⁷ A poignant illustration of this phenomenon was exemplified by María José Martínez-Patiño’s harrowing experience, conveyed in her 1987 letter to Mr Juan Antonio Samaranch.²⁸ Having represented Spain internationally and having received an IAAF-issued gender verification card in 1983, Martínez-Patiño attended the 1985 World University Games in Kobe, Japan.²⁹ However, upon realising she had forgotten her femininity certificate, she underwent testing once more, revealing a 46, XY karyotype.³⁰ Event officials advised Martínez-Patiño to withdraw from the World University Games under the guise of a warm-up injury.³¹ To protect her privacy, she complied.³² Tragically, in 1986, when she attempted to re-enter a competition using her previous identification card, this time for the Spanish National Championships, officials who were aware of her history presented Martínez-Patiño with the same dilemma: either withdraw discreetly or face public exposure.³³ Martínez-Patiño’s decision to compete culminated in a gold medal victory, but it was

²⁵ W. Reczek, ‘Letter from Włodzimierz Reczek to Prince Alexandre de Mérode’, (24 Oct. 1967), p. 1, CIO-AH B-ID04-MEDIC/035, SD2.

²⁶ *Ibid.*, 1.

²⁷ E. Hay, ‘Letter from Dr. Eduardo Hay to Dr. Elizabeth Ferris’, (22 Feb. 1981), p. 2, CIO-AH B-ID04-MEDIC/035 SD4.

²⁸ M. J. Martínez-Patiño, ‘Letter from María José Martínez-Patiño to H. E. Mr. Juan Antonio Samaranch’, (24 Oct. 1987), CIO-AH B-ID04-MEDIC/036, SD2.

²⁹ J. Schultz, *Qualifying Times: Points of Change in U.S. Women’s Sport* (Chicago, IL, 2014), p. 111; M. J. Martínez-Patiño, ‘Letter from María José Martínez-Patiño to H. E. Mr. Juan Antonio Samaranch’, (24 Oct. 1987), p. 1, CIO-AH B-ID04-MEDIC/036, SD2.

³⁰ M. J. Martínez-Patiño, ‘Letter from María José Martínez-Patiño to H. E. Mr. Juan Antonio Samaranch’, (24 Oct. 1987), p. 1, CIO-AH B-ID04-MEDIC/036, SD2; A. Ljungqvist, ‘Gender Verification’, in B. L. Drinkwater (eds), *Women in Sport: Volume VIII of the Encyclopaedia of Sports Medicine, An IOC Medical Committee Publication* (Oxford, 2000), p. 186.

³¹ C. L. Cole, ‘One Chromosome Too Many?’, in K. Schaffer and S. Smith, *The Olympics at the Millennium: Power, Politics, and the Games* (New Brunswick, NJ, 2000), p. 138.

³² *Ibid.*

³³ Schultz, *Qualifying Times*, p. 112.

soon overshadowed when a Spanish doctor divulged her 1985 chromatin screening results to the press, igniting widespread public outrage against her.³⁴ Consequently, she was expelled from her athletic residency at Residencia Blume, lost her university scholarship, and was forced to abandon her studies.³⁵ Stripped of her accomplishments and shunned by acquaintances, Martínez-Patiño appealed to Mr Samaranch for assistance in 1987 and recounted enduring the ‘most distressing moments’ of her life, grappling with ‘shame’ and the ‘loss of friendships’.³⁶ This case vividly exemplified the failure of the IOC’s confidentiality assurances, as breaches in privacy led to infringements upon women’s rights and premature terminations of careers. As criticism intensified against the IOC regarding the potential public disclosure of gender verification testing, many argued that such exposure constituted a blatant violation of medical ethics, revealing the profound harm inflicted upon scrutinised athletes. This fusion of medical considerations and ethical dilemmas highlighted the overarching strategy of leveraging ethical concerns to rally public support. However, as detailed in Chapter Two, the primary concern among the majority of doctors corresponding with the IOC focused on the medical accuracy of chromatin screenings. Consequently, throughout this period, ethical discourse served merely as a strategic tool to galvanise public opinion.

In contrast to the consistent issue of embarrassment, used as a linguistic tool to critique the IOC’s medical policy, the letters received by the IOC over the twenty-four years of chromatin screening also demonstrated linguistic adaptations, mirroring evolving theories of women’s rights and medical advancements. The adopted language became more sophisticated and aligned with broader societal shifts to cultivate wider criticism of the IOC. For example, the tone became more formal and accusatory, referencing violations of women’s rights and instances of psychological harm resulting from the IOC’s gender verification testing.

However, despite these linguistic changes, the majority of critics were male, and consideration for the impact of testing on the female body remained secondary. Even when unease was voiced, it often disguised notions of the masculine urge to protect the female body from harm, echoing the pervasive influence of patriarchy as observed throughout this dissertation. Interestingly, these underlying themes of protection and fair play for women in sport seemed to be employed as a

³⁴ M. J. Martínez-Patiño, ‘Letter from María José Martínez-Patiño to H. E. Mr. Juan Antonio Samaranch’, (24 Oct. 1987), p. 1, CIO-AH B-ID04-MEDIC/036, SD2.

³⁵ *Ibid.*

³⁶ *Ibid.*

populist technique to garner greater support from the male population. They rallied to the cause, driven by a sense of duty to protect women and fulfil their roles as patriarchs.

Initially, signs of dissatisfaction directed at the IOC did not hinge on the rhetorical strategies characteristic of the 1980s. In October 1967, Reczek penned a letter to de Mérode, expressing dismay at the global sports community's contemplation of physical examinations at sporting events, deeming it a form of discrimination.³⁷ He emphasised that 'repeated gynecological examinations of the young girl athletes, even several times in the course of one year, make an unpleasant atmosphere around those athletes and are a form of discrimination [sic]'.³⁸ This theme endured, despite the IOC's shift towards chromosomal testing as an alternative to the widely debated visual examination. In 1972, Gudmund Schack, President of the Danish Olympic Committee, confronted the 'Sirs' of the IOC and presented a memorandum from Danish doctors concerning the 'Use of Sex Chromatin Investigation of Competitors in Women's Divisions of the Olympic Games'.³⁹ The memorandum elucidated the detrimental repercussions of the proposed chromosomal sex test, arguing against its discriminatory effects and flawed methodology.⁴⁰ It forcefully asserted that employing chromosomal testing exclusively on women constituted overt 'discrimination against a minority', and extending it to both sexes would result in absurd scenarios, such as men with 46, XX and 47, XXY karyotypes competing against women, which was deemed a profound injustice.⁴¹

However, the discourse on discrimination underwent significant evolution over the years, reaching a critical juncture a decade later when Professor de la Chapelle delivered a scathing indictment of the IOC in a document titled 'A brief critical analysis of the use of sex chromatin screening in the "femininity control" of female athletes'.⁴² De la Chapelle's extensive analysis condemned the IOC's actions as a 'flagrant violation of her [women's] rights', asserting that revealing a woman's genetic

³⁷ W. Reczek, 'Letter from Włodzimierz Reczek to Prince Alexandre de Mérode', (24 Oct. 1967), p. 1, CIO-AH B-ID04-MEDIC/035, SD2.

³⁸ *Ibid.*

³⁹ G. Schack, 'Letter from Gudmund Schack to Sirs', (18 Feb. 1972), CIO-AH B-ID04-MEDIC/035, SD2, 869 GS/IM; E. Strömngren, J. Nielsen, M. Ingerslev, G. B. Petersen and A. J. Therkelsen, 'A Memorandum on the Use of Sex Chromatin Investigation of Competitors in Women's Divisions of the Olympic Games', (3 Feb. 1972), CIO-AH B-ID04-MEDIC/035, SD2.

⁴⁰ E. Strömngren, J. Nielsen, M. Ingerslev, G. B. Petersen and A. J. Therkelsen, 'A Memorandum on the Use of Sex Chromatin Investigation of Competitors in Women's Divisions of the Olympic Games', (3 Feb. 1972), CIO-AH B-ID04-MEDIC/035, SD2.

⁴¹ *Ibid.*, p. 6.

⁴² A. de la Chapelle, 'A brief critical analysis of the use of sex chromatin screening in the "femininity control" of female athletes', (n.d.), CIO-AH B-ID04-MEDIC/035, SD4.

status without her consent amounted to a grave transgression with potentially tragic consequences.⁴³

This notable transformation in the rhetoric employed by critics, evolving from mere allegations of discrimination in 1967 to outright condemnation of rights violations by 1982, reflected broader societal changes that the IOC vehemently resisted, as discussed in Chapter Two. Indeed, the burgeoning second-wave feminist movement, focusing on issues such as sexuality, family, workplace dynamics, and legal disparities, gained momentum during this period.⁴⁴ Activists advocated for both incremental reforms and radical transformations to combat systemic sexism and gender inequality. Their efforts catalysed a remarkable era of progress in women's rights, particularly within the legal arena, leaving an indelible, formalised, and institutionalised legacy in history. In the USA, the passing of Title IX in 1972 marked a significant milestone in prohibiting sex-based discrimination in federally funded education programs, profoundly impacting women's access to sports and educational opportunities.⁴⁵ Globally, countries embraced measures to advance gender equality, exemplified by the adoption of the Convention on the Elimination of All Forms of Discrimination Against Women by the United Nations in 1979, providing a comprehensive international framework for safeguarding women's rights.⁴⁶ Notably, the rise of the Red Stocking Movement (Rødstrømperne) in Denmark in 1970 exemplified the escalating momentum behind women's rights and the burgeoning challenge to entrenched gender norms.⁴⁷ As the IOC clung to outdated definitions of sex determined solely by biology, such as chromosomes, this atmosphere of activism likely emboldened Danish doctors to draft their memorandum and prompted Schack's aforementioned letter to the IOC in 1972.⁴⁸

⁴³ A. de la Chapelle, 'A brief critical analysis of the use of sex chromatin screening in the "femininity control" of female athletes', (n.d.), p. 5, CIO-AH B-ID04-MEDIC/035, SD4.

⁴⁴ S. Thornham, 'Second Wave Feminism', in S. Gamble (eds), *The Routledge Companion to Feminism and Postfeminism* (London, 2001), p. 25.

⁴⁵ B. R. Sandler, 'Title IX: How we got it and what difference it made', *Cleveland State Law Review*, 55/4 (2007), pp. 473-489; Title IX was a federal civil rights law in the United States enacted as part of the Education Amendments of 1972. It prohibited sex-based discrimination in any educational programme or activity that received federal financial assistance. Title IX had a profound impact on promoting gender equity in education, particularly in athletics, by requiring schools and colleges to provide equal opportunities for both sexes in sports and other extracurricular activities.

⁴⁶ 'Convention on the Elimination of All Forms of Discrimination against Women' <https://www.un.org/womenwatch/daw/cedaw/#:~:text=The%20Convention%20is%20the%20only,the%20nationality%20of%20their%20children> (3 Mar. 2024).

⁴⁷ R. Clifford, R. Gildea and A. Warring, 'Gender and sexuality', in R. Gildea, J. Mark and A. Warring (eds), *Europe's 1968: Voices of Revolt* (Oxford, 2013), p. 245.

⁴⁸ E. Strömngren, J. Nielsen, M. Ingerslev, G. B. Petersen and A. J. Therkelsen, 'A Memorandum on the Use of Sex Chromatin Investigation of Competitors in Women's Divisions of the Olympic Games', (3 Feb. 1972), CIO-AH B-ID04-MEDIC/035, SD2; G. Schack, 'Letter from Gudmund Schack to Sirs', (18 Feb. 1972), CIO-AH B-ID04-MEDIC/035, SD2, 869 GS/IM.

It is therefore apparent that during this period, criticism directed at the IOC by Presidents of NOCs and medical professionals, particularly from Nordic nations, evolved in tandem with the trajectory of women's rights, mirroring the expanding legal framework of gender equality. Ultimately, the language employed by these critics reflected an underlying strategy to garner mass support by aligning with populist movements, thereby amassing a considerable number of people to criticise the IOC with the intention of compelling policy change. However, this purported 'protection' of women's rights also reveals an underlying theme of male paternalism in the discussions among IOC critics: the notion that, by criticising the IOC, male doctors were fulfilling their patriarchal role of safeguarding the female body. A multitude of agendas were clearly at play when criticising IOC medical policy.

Another sphere in which criticism towards the IOC evolved and adjusted to changing theories involved accusations of tangible harm inflicted on female athletes, with prominent figures such as Reczek and Professor de la Chapelle leading the charge. In 1967, Reczek warned the IOC about the potential harm caused by the 'lightminded arbitrariness in the interpretation of the results of examinations', noting the absence of universally accepted criteria for determining the sex of female athletes.⁴⁹ He cautioned that such practices could lead to serious 'harm [to] the examined persons'.⁵⁰ Although the 1970s saw a decline in criticism specifically addressing the harm caused to women by gender verification testing, with critics instead focusing on inconsistencies regarding who could issue femininity certificates, the 1980s witnessed a resurgence of concerns about the literal harm these measures inflicted on female athletes. In May 1983, Professor de la Chapelle wrote to Professor Hay, challenging the justification for chromatin screening.⁵¹ He contended that not only did these tests fail to identify significant numbers of wrongdoers, but they also caused personal tragedies for women whose chromatin results were deemed 'wrong'.⁵² This ongoing criticism underscored the ethical failings of the IOC and the profound impact their policies had on the lives and careers of female athletes.

The issue of harm, physical or psychological, was further highlighted in 1987 when Dr Myron Genel, a Professor of Paediatrics at Yale University, wrote to Dr Guillemin, President of the Endocrine Society, expressing concern that chromatin testing as a form of genetic screening for

⁴⁹ W. Reczek, 'Letter from Włodzimierz Reczek to Prince Alexandre de Mérode', (24 Oct. 1967), p. 1, CIO-AH B-ID04-MEDIC/035, SD2.

⁵⁰ *Ibid.*

⁵¹ A. de la Chapelle, 'Letter from Albert de la Chapelle to Dr. Eduardo Hay', (9 May 1983), CIO-AH B-ID04-MEDIC/036, SD1.

⁵² *Ibid.*, p. 1, [emphasis in original].

sport resulted in public ridicule and emotional trauma for the athletes involved.⁵³ This letter, coupled with resolutions passed by the Endocrine Society and numerous other medical societies in the late 1980s, played a crucial role in prompting the Endocrine Society to take action. In August 1987, they joined several other societies in writing to the IOC, including the Lawson Wilkins Pediatric Endocrine Society, which had previously penned a letter to the IOC President, Dr Juan Antonio Samaranch, in June 1987.⁵⁴ Both organisations employed similar language and urged the IAAF and IOC to

discontinue use of sex chromatin tests for verification of ‘athletic gender’ and to convene an international conference of sports and medical experts to develop more appropriate and sensitive criteria of female gender verification for use in athletic competition.⁵⁵

This communication, combined with the advocacy of other professional societies and the persistent efforts of de la Chapelle, eventually spurred the IOC into action, culminating in the formation of a working group in 1988 to review the gender verification processes. On 24 February 1986, Professor de la Chapelle directly confronted the IOC, addressing Professor Hay and de Mérode.⁵⁶ He fervently questioned how the IOC could continue to defend these egregious practices, particularly in light of their previous letter dated 4 February, which agreed with Professor de la Chapelle’s assertion that testing harmed ‘women with negative X chromatin who do not “pass” the screening tests’.⁵⁷ This stark acknowledgement of the damage they were causing marked a significant departure from the IOC’s previous ignorance of reality, as the IOC had hitherto steadfastly refused to acknowledge such damning claims. However, interestingly, despite this apparent awareness of the harm being caused, it took the IOC another two years to convene the working group, reflecting a troubling delay in addressing these serious ethical concerns. This delay underscored the gap between the recognition of harm and the implementation of measures to protect the affected athletes, thus highlighting the indefensible nature of IOC behaviour during the twenty-four years of chromatin testing, but in particular from 4 February 1986 onwards once guilt was admitted.⁵⁸

⁵³ M. Genel, ‘Letter from Myron Genel to Roger Guillemin’, (5 May 1987), CIO-AH B-ID04-MEDIC/036, SD2.

⁵⁴ N. C. Karpin, ‘Letter from Nettie C. Karpin to Dr. Juan Antonio Samaranch’, (10 Aug. 1987), CIO-AH B-ID04-MEDIC/036, SD2, 8352; G. P. August, ‘Letter from Gilbert P. August to Dr. Juan Antonio Samaranch’, (19 June 1987), CIO-AH B-ID04-MEDIC/036, SD2, 7194.

⁵⁵ Lawson Wilkins Pediatric Endocrine Society, ‘Resolution on Gender Verification for Female Athletes’, (30 Apr. 1987), CIO-AH B-ID04-MEDIC/036, SD2; ‘Resolution on Gender Verification for Female Athletes: for Submission to the Endocrine Society’, (n.d.), CIO-AH B-ID04-MEDIC/036, SD2; N. C. Karpin, ‘Letter from Nettie C. Karpin to Dr. Juan Antonio Samaranch’, (10 Aug. 1987), CIO-AH B-ID04-MEDIC/036, SD2, 8352.

⁵⁶ A. de la Chapelle, ‘Letter from Albert de la Chapelle to Professor Eduardo Hay’, (24 Feb. 1986), CIO-AH B-ID04-MEDIC/036, SD2.

⁵⁷ *Ibid.*, [emphasis in original].

⁵⁸ *Ibid.*

In their impassioned pleas for the IOC to abolish gender verification testing, critics vehemently emphasised another layer of harm: the profound concerns regarding mental health and holistic well-being. Interestingly, the discourse surrounding this issue gained formalisation in the 1980s, with critics articulating terms like ‘psychological trauma’.⁵⁹ This heightened focus on mental health starkly contrasted with the discourse of the 1960s, indicative of evolving understandings of mental well-being during that era. Indeed, the period spanning from 1968 to 1988 witnessed a profound transformation in the comprehension of mental health, driven by scientific breakthroughs, societal movements, and evolving cultural attitudes. The late 1960s and early 1970s saw a burgeoning acknowledgement of mental health’s significance within overall well-being, coupled with vigorous public awareness campaigns aimed at destigmatising mental illness and advocating for mental health care.⁶⁰ Furthermore, advancements in psychiatry and psychology during this epoch markedly deepened the understanding of mental disorders and their intricate origins.⁶¹

This evolution in mental health understanding was reflected in the discourse surrounding gender verification in sports, particularly evident in communications between the IOC and its critics. In 1972, the memorandum sent from Danish doctors to the IOC Committee highlighted that while most males would indeed be excluded from competing alongside females, ‘this result must be bought at the expense of the happiness of some sex chromatin negative women, who would be excluded without any reason at all’.⁶² This memorandum, using formal diagnostic language, cautioned that such public exclusion could lead to ‘psychological trauma so powerful that serious mental reactions must be anticipated in the persons excluded’.⁶³ This contrasts with the more formal and medicalised language used in the 1980s, exemplified by Dr James A. Monteleone’s concern in May 1980 regarding the psychological impact of buccal smear tests on female athletes.⁶⁴

⁵⁹ A. de la Chapelle, ‘Letter from Albert de la Chapelle to The International Olympic Committee: Femininity control of female athletes’, (17 Aug. 1982), CIO-HA B-ID04-MEDIC/035, SD4; A. de la Chapelle, ‘A brief critical analysis of the use of sex chromatin screening in the “femininity control” of female athletes’, (n.d.), CIO-HA B-ID04-MEDIC/035, SD4; J.-P. de Mondenard ‘Médecine du sport: sur la piste des « manipulations » sexuelles’, *Medecine Pratique*, 4197 (1988), CIO-AH B-ID04-MEDIC/037, SD3.

⁶⁰ J. C. Phelan, B. G. Link, A. Steuve and B. A. Pescosolido, ‘Public Conceptions of Mental Illness in 1950 and 1996: What Is Mental Illness and Is It to be Feared?’, *Journal of Health and Social Behaviour*, 41/2 (2000), p. 190.

⁶¹ *Ibid.*, p. 196.

⁶² E. Strömngren, J. Nielsen, M. Ingerslev, G. B. Petersen and A. J. Therkelsen, ‘A Memorandum on the Use of Sex Chromatin Investigation of Competitors in Women’s Divisions of the Olympic Games’, (3 Feb. 1972), p. 4, CIO-AH B-ID04-MEDIC/035, SD2.

⁶³ *Ibid.*, p. 6.

⁶⁴ J. A. Monteleone, ‘Letter from James A. Monteleone to Monique Berlioux’, (8 May 1980), CIO-AH B-ID04-MEDIC/035, SD4, 5241.

Dr Monteleone acknowledged the intended purpose of detecting fraudulent male entry into female competitions but emphasised the psychological trauma of inadvertently discovering conditions such as testicular feminisation, sex reversal syndrome, Turner's syndrome, or other sex chromosome aberrations.⁶⁵ He concluded that it was preferable for a 'fraudulant [*sic*] entry go undetected than put an unsuspecting young lady through the unnecessary anguish caused by the sudden knowledge that she has a sex chromosome defect'.⁶⁶ The use of emotive language by critics of the IOC in the 1980s served as a deliberate strategy to catalyse change. While Dr Monteleone's tone may contain elements of transphobia, implying that gender identity change was an unfavourable outcome of the IOC medical policy, his writing highlights a broader trend among critics of that era: the fusion of formal diagnostic language with emotive examples, often supported by individual case studies to underscore their arguments. Indeed, Professor de la Chapelle's essay in 1982 cited that the harm inflicted by IOC testing could lead to 'serious, if not fatal, psychological damage', even if a woman was found chromatin-positive and permitted to compete in the female category.⁶⁷

Dr Monteleone's and Professor de la Chapelle's critiques, which employed formalised diagnostic medical language, resonated with the broader shifts in mental health diagnosis and treatment during the same period, notably exemplified by the publication of DSM-III in 1980.⁶⁸ This edition introduced a more systematic approach to diagnosis, fostering a standardised understanding of mental disorders among clinicians.

Thus, the evolution of rhetoric used to advocate for a revision of the IOC's gender verification policy highlights a trajectory of societal progress and advancement from 1968 to 1988, contrasting with the inertia of the IOC detailed in Chapter Two. Initially, concerns in the 1970s did not include mental health, focusing more on the general well-being and happiness of female athletes rather than medical aspects. However, by the 1980s, prompted by the publication of DSM-III, critics adopted more formal diagnostic language to press the IOC to abolish chromatin testing. This discourse underscored the adaptation of language by historical figures to correspond with societal transformations and prevailing movements, thereby exerting heightened pressure on the organisation to amend its policies. Nevertheless, this evolving rhetoric is more aptly construed as

⁶⁵ J. A. Monteleone, 'Letter from James A. Monteleone to Monique Berlioux', (8 May 1980), CIO-AH B-ID04-MEDIC/035, SD4, 5241.

⁶⁶ *Ibid.*

⁶⁷ A. de la Chapelle, 'A brief critical analysis of the use of sex chromatin screening in the "femininity control" of female athletes', (n.d.), p. 5, CIO-AH B-ID04-MEDIC/035, SD4.

⁶⁸ Wilson, 'DSM-III'.

a strategic manoeuvre aimed at securing broad-based support by aligning with prevalent movements and galvanising resistance against IOC policies. Fundamentally, the majority of doctors corresponding with the IOC were primarily preoccupied with the medical inaccuracies inherent in testing procedures. They employed notions of safeguarding women in sports and promoting fairness as vehicles to garner increased support from male constituencies, propelled by a sense of obligation to uphold the welfare of women and fulfil traditional roles.

Thus far, evidence has revealed that one of the primary motivators for criticism of the IOC's gender verification policy was the medical accuracy of chromatin testing, not concern for the female body. The IOC's response to these criticisms further underscored this discourse's disregard for female welfare. Professor Hay and the IOC viewed gender verification testing as an administrative matter, repeatedly ignoring letters from doctors and postponing action for years before finally convening the working group in 1988.⁶⁹ Furthermore, their defence of the Barr Body Test emphasised its speed and practicality, prioritising convenience over the well-being of female athletes.

Professor Hay was the most culpable among IOC members for prioritising administrative efficiency over the well-being of female athletes. In 1982, he justified the Barr Body and quinacrine Y-fluorescence screening process to Dr Giam of the Southeast Asian Games as a 'safe, practical, and economical method' to eliminate genetic anomalies that could advantage male-female competition.⁷⁰ Similarly, in 1983, when writing to Professor de la Chapelle, Professor Hay acknowledged IOC errors but failed to seize the opportunity to form a panel that could evaluate the policy. Instead, he stated, 'We know that the procedure is not an absolute [*sic*] safe method, but it is a practical and economical one, if the screening requires the complete test, it is done in a proper scientific way'.⁷¹ Professor Hay's emphasis on practicality and convenience for the IOC, rather than for the female athletes, was crucial to the continued use of the Barr Body Test. In 1985, following his attendance at the Sports Medicine Congress in Australia, Hay sent a significant

⁶⁹ A. de la Chapelle, 'Letter from Albert de la Chapelle to Comité International Olympique, Madame', (8 Mar. 1984), CIO-AH B-ID04-MEDIC/036, SD1, 4788/83; M. Berlioux, 'Letter from Monique Berlioux to Professor de la Chapelle: Femininity control', (12 Mar. 1984), CIO-AH B-ID04-MEDIC/036, SD1, 2866/84/sig; E. Hay, 'Letter from Dr. Eduardo Hay to S. A. Le Prince Alexandre de Mérode', (5 July 1985), CIO-AH B-ID04-MEDIC/036, SD2; A. de la Chapelle, 'Letter from Albert de la Chapelle to Professor Eduardo Hay', (24 Feb. 1986), CIO-AH B-ID04-MEDIC/036, SD2.

⁷⁰ E. Hay, 'Letter from Dr. Eduardo Hay to Dr. C. K. Giam', (25 Oct. 1982), p. 2, CIO-AH B-ID04-MEDIC/035, SD4, 10913.

⁷¹ E. Hay, 'Letter from Dr. Eduardo Hay to Professor Albert de la Chapelle', (25 Apr. 1983), p. 3, CIO-AH B-ID04-MEDIC/036, SD1.

document to de Mérode, in which he admitted the widespread belief that change was needed.⁷² The evidence he cited to prove this, and arguably showed his support of the need for change, was not that the test was harmful to women, but that, as aforementioned, it only detected 30% of ‘femininity disorders’, making it an inefficient use of IOC resources.⁷³ However, despite acknowledging these criticisms, Professor Hay’s letter to de Mérode ultimately defended the test, arguing that its practicality justified its continued use by the IOC.⁷⁴

These ideas soon permeated beyond Professor Hay. In 1987, Dr Howald, a member of the IOC Medical Commission, wrote to Professor de la Chapelle insisting on the continued use of the Barr Body Test, stating that ‘there seems not to be a scientifically more reliable method to replace sex chromatin screening’.⁷⁵ This stance reinforces the paradigm discussed in the previous chapter: an entrenched inability to progress from chromatin screening. It reflects both dependence on outdated understandings of the sex binary and sex development, as well as a patriarchal insistence on retaining some form of testing to regulate the definition of female bodies eligible for participation in sporting competitions.

Ultimately, as early as 1983, Professor Hay indicated to Professor de la Chapelle that the IOC was open to studying any improvements ‘so long as they provide the requirements of practicality, low cost, discretion, and complete respect for the athlete’.⁷⁶ As consistently demonstrated in this dissertation, concern for the female body was secondary, overshadowed by considerations of medical accuracy, discussed in Chapter Two, and practical implications, as revealed here. These revelations reflect the persistent prioritisation of logistical and economic factors over genuine concern for the athletes’ well-being.

When submitting his paper titled ‘IOC Experience of Gender Verification’ to the IOC Medical Commission’s 1988 working group, Professor Hay initially outlined the criteria the Commission considered when first designing the implementation of gender verification testing in 1967.⁷⁷ These criteria included:

⁷² E. Hay, ‘Letter from Dr. Eduardo Hay to Mousigneur [sic] Le Prince Alexandre de Mérode’, (17 Oct. 1985), CIO-AH B-ID04-MEDIC/036, SD2.

⁷³ *Ibid.*, p. 2.

⁷⁴ *Ibid.*

⁷⁵ H. Howald, ‘Letter from Prof. Hans Howald to Professor de la Chapelle’, (7 Dec. 1987), p. 2, CIO-AH B-ID04-MEDIC/037, SD1, 12739.

⁷⁶ E. Hay, ‘Letter from Dr. Eduardo Hay to Professor Albert de la Chapelle’, (25 Apr. 1983), p. 3, CIO-AH B-ID04-MEDIC/036, SD1.

⁷⁷ E. Hay, ‘IOC Experience of Gender Verification, (n.d.), CIO-AH B-ID04-MEDIC/037, SD2.

Minimal interference with the athlete, respecting her feelings and privacy.
Minimal time consumption for the test.
Absolute secrecy regarding the results, in case of abnormalities.⁷⁸

Interestingly, towards the end of the paper, Professor Hay emphasised that the IOC Medical Commission was open to new methods of testing ‘as long as the basic aim is taken into consideration; [*sic*] minimal interference, respect, and absolute secrecy’.⁷⁹ Notably, the idea of minimal time consumption was dropped from Professor Hay’s criteria for a new test. This dissertation posits that after twenty-four years of criticism, the IOC began to realise that administrative ease would have to be deprioritised if they were to gain social approval and support for the Olympic Movement.

Lastly, while acknowledging the intriguing patterns in the evolution of critiques aimed at the IOC to reform their gender verification policies, compelling themes emerged concerning the subconscious perpetuation of patriarchal norms. Firstly, an interesting question arises regarding whom these critics were truly concerned about harming. Indeed, as aforementioned, while Professor de la Chapelle stated the exclusion of women based on abnormal sex chromatin was a ‘flagrant violation of her rights’, Stanley M. Gartler’s letter to de Mérode in 1987 implied a concern for only ‘true’ females.⁸⁰ Representing more than three thousand scientists, physicians, and allied health workers through the American Society of Human Genetics, Gartler expressed that he felt current methods to ‘keep men from competing as women in athletic events may inflict harm on individuals who are *truly female*’ [emphasis added].⁸¹ The inclusion of ‘truly female’ suggested a disregard for the potential harm inflicted on women with sex chromosome aberrations who identified as female. In essence, the persistence of patriarchal norms becomes evident as critics grappled with whom they prioritise in their concerns, revealing a subconscious bias that perpetuated gender discrimination within the IOC’s policies.

In conclusion, the examination of critiques of the IOC’s gender testing policies from 1968 to 1992 reveals a distressing pattern of ethical decline and moral negligence. Despite societal progress and increasing awareness of women’s rights, the IOC persisted in implementing discriminatory

⁷⁸ E. Hay, ‘IOC Experience of Gender Verification, (n.d.), p. 1, CIO-AH B-1D04-MEDIC/037, SD2, [formatting according to primary source].

⁷⁹ *Ibid.*, p. 2.

⁸⁰ A. de la Chapelle, ‘A brief critical analysis of the use of sex chromatin screening in the “femininity control” of female athletes’, (n.d.), p. 5, CIO-AH B-ID04-MEDIC/035, SD4; S. M. Gartler, ‘Letter from Stanley M. Gartler to Prince Alexandre de Mérode’, (23 Nov. 1987), CIO-AH B-ID04-MEDIC/036, SD2, 12264.

⁸¹ S. M. Gartler, ‘Letter from Stanley M. Gartler to Prince Alexandre de Mérode’, (23 Nov. 1987), CIO-AH B-ID04-MEDIC/036, SD2, 12264.

practices that subjected female athletes to humiliation, discrimination, and psychological harm. Critics fervently condemned these policies, highlighting the objectification of women and the violation of their rights. However, the IOC's slow acknowledgement of the harm inflicted and its defence of these practices highlighted a troubling disregard for women's dignity and agency.

An interesting pattern emerged regarding the gendered approach to criticising the IOC, with women, in particular Mary Glen-Haig and Dr Ferris, citing the academic grounding of their arguments, even referencing support from male peers. In contrast, male doctors or male presidents of societies and NOCs felt confident in their own views, bolstered by the paternal urge to protect women.

However, beneath this veneer lies a more complex reality. At its core, the condemnation of gender verification testing due to scientific methodology, rather than moral and ethical concerns, resonated more frequently among doctors and other critics who chastised the IOC during this period. For figures like Professor de la Chapelle, the flawed medical theory underpinning chromatin screening formed the crux of their argument, not the violations of women's rights. The maltreatment inflicted on women was too often regarded as an afterthought rather than the central focus of concern. This underlying theme was exemplified most succinctly in Professor de la Chapelle's correspondence with Professor Hay in May 1983, where he vehemently argued that 'the present screening method is scientifically unfounded, nearly totally ineffective, and sometimes harmful'.⁸²

Furthermore, although emotional, moral, and ethical appeals were utilised to rally widespread support, the primary concern for many critics throughout the twenty-four years of testing was not fairness but rather scientific rigour and administrative practicality. As outlined in Chapter Two, the dispute revolved around the validity of chromatin testing as a definitive determinant of gender. This multifaceted critique, integrating both ethical and scientific arguments, highlighted the intricate opposition to gender testing policies. Ultimately, it revealed the entrenched structural and cultural patriarchy that enabled the neglect of female well-being and perpetuated the continued marginalisation of women in sport, impacting both their bodies and their voices.

⁸² A. de la Chapelle, 'Letter from Albert de la Chapelle to Dr. Eduardo Hay', (9 May 1983), p. 1, CIO-AH B-ID04-MEDIC/036, SD1.

CONCLUSION

In conclusion, as we stand on the brink of the upcoming Games of the XXXIII Olympiad, the echoes of past injustices reverberate alongside contemporary challenges. From the clandestine corridors of gender verification testing to the public outcry against systemic injustices, the struggle for equality and autonomy in sport persists. The recently published autobiographies of former athletes, such as Caster Semenya (2012 and 2016 800m Olympic gold medallist), serve as poignant reminders of the insidious forces that have historically shaped the landscape of women's sports.¹ Particularly pertinent is the ongoing discourse surrounding the inclusion of transgender women in sports. This issue is exemplified by Lia Thomas, who recently lost her case against World Athletics, barring her from competing in the upcoming Olympics.² Such cases place the IOC in the enduring quandary of defining sex and gender while striving to uphold its position as a global leader committed to fostering inclusivity and equality.

The Olympic history studied in this dissertation reveals the disheartening reality of systemic patriarchy, exemplified by the secrecy and opacity surrounding gender verification testing. Yet, amidst these challenges, there emerges a glimmer of hope, a collective call for change and a reimagining of the sporting arena as a space for empowerment and inclusivity. Semenya's call for increased female representation in decision-making roles, along with oral histories like LA 84's work with Wyomia Tyus (1964 and 1968 100m Olympic gold medallist) and her recounting of invasive procedures, highlight the urgent need for greater transparency and accountability within sporting institutions.³

Looking ahead, the 2024 Summer Olympics stand at the nexus of geopolitical tensions and sporting excellence. The disinformation campaign orchestrated by Russia in response to the IOC's decision to uphold the ban on Russian athletes serves as a stark reminder of the broader political agendas at play and echoes the Cold War era.⁴ Similarly, protests have erupted, urging the IOC to bar Israeli athletes from participation, a symbolic condemnation of Israeli actions against

¹ C. Semenya, *The Race To Be Myself* (London, 2024).

² BBC Sport, 'Transgender swimmer Thomas' legal case over ban dismissed' (12 June 2024), <https://www.bbc.co.uk/sport/swimming/articles/c4nn20w0x0zo> (12 June 2024).

³ Interview with Caster Semenya, conducted by Sebastian Watkins, *Oxford Union* (6 Nov. 2023); M. Costa, 'An Olympian's Oral History Wyomia Tyus, 1964 & 1968 Olympic Games, track & field. Part II: Olympic years', *Digital LA84 Foundation* (2020), <https://digital.la84.org/digital/collection/p17103coll11/id/602/rec/8> (5 June 2023).

⁴ New York Times, 'Fake News Reports and Videos Seek to Undermine the Paris Olympics' (3 June 2024), <https://www.nytimes.com/2024/06/03/us/politics/russia-disinformation-olympics-paris.html> (5 June 2024).

Palestine.⁵ As the world watches in anticipation, Paris 2024 represents not only a celebration of athletic prowess but also a battleground for social justice and geopolitical manoeuvring. Though times change, nations shift, and conflicts evolve, the battles remain timeless.

This dissertation has explored the genesis of debates that carry significant implications for the rights of transgender individuals, as well as for diversity and inclusion in women's sports within present-day society. Three prominent themes surface from this examination.

Firstly, the historical trajectory of gender verification testing in sports unveiled entrenched patriarchal structures that have long governed sporting institutions. Since the inception of gender verification testing, there has been a systematic reinforcement of gender norms and power dynamics, favouring male athletes while marginalising their female counterparts. Rooted in 1960s societal understandings of gender roles and expectations, this patriarchal framework perpetuated inequalities and limited opportunities for female athletes by resisting social progress towards equality and clinging to outdated notions of their suitability.

Secondly, a prominent theme presented in this dissertation was the construction of an artificial category of female weakness within the sporting arena. Gender verification testing relied on outdated and scientifically questionable notions of female physical inferiority, perpetuating the fallacy that women were inherently weaker and less capable than men in athletic pursuits. This fabrication of female weakness not only limited women's participation in certain sports but also reinforced stereotypes and discrimination against women.

Lastly, the discourse surrounding gender verification testing revealed the objectification of the female body within sports. Female athletes endured invasive and dehumanising testing procedures that reduced their bodies to objects of scrutiny and control. This objectification extended beyond the testing process itself, manifesting in the hypersexualisation and commodification of female athletes in media and popular culture. Such objectification undermined the agency and autonomy of female athletes, exacerbating gender inequalities within sports.

These three themes underscore the intricate interplay of power, gender, and identity inherent in the discourse surrounding gender verification testing in sports. By critically examining these

⁵ Independent, 'Pro-Palestinian protesters call on Olympic officials to limit Israel's participation in Paris Games', (30 Apr. 2024), <https://www.independent.co.uk/news/world/europe/israel-ap-gaza-paris-french-b2537305.html> (10 May 2024)

themes, deeper insights into the historical forces shaping the sporting landscape and informing ongoing debates about gender and inclusion in sports are gained.

Furthermore, this discussion deepens the understanding of Cold War athletic competitions, moving beyond a simplistic political lens to highlight the intricate and frequently overlooked dimension of medicine and gender within this arena. Indeed, the influence of this fractious era, marked by post-humanism and second-wave feminism, profoundly shaped the maltreatment of the female athlete's body. Antiquated, male-dominated institutions, such as the International Olympic Committee, harboured a desire to introduce measures, such as gender verification testing, aimed at defining female capabilities, inadvertently reinforcing masculine virtues and strength.

While this dissertation has thoroughly examined the intricate history of gender verification testing in sports, there are numerous avenues awaiting exploration once the constraints of the thirty-year rule are lifted. The discourse surrounding gender verification testing offers fertile ground for investigation, with the lens of transphobia providing fresh insights into the multifaceted dynamics involved. By scrutinising the underlying motives and biases entrenched within sporting institutions, we can pave the way for a more equitable and inclusive future for athletes of all genders. However, a significant impediment posed by this thirty-year rule was restricted access to minutes of IOC Commission Meetings after 1992, thereby precluding insights into the decision-making processes surrounding the cessation of femininity certificates and mandatory gender verification testing in 1996/1998. While concluding this discussion in 1992 was appropriate, coinciding with the decision at the 1992 Barcelona Olympic Games to introduce PCR testing, further exploration of the hormone testing versus chromosomal testing debate of the 1990s would enrich this study. Additionally, since this is a relatively new historiographical territory, attention had to be directed towards structures and debates. However, future research could adopt a less institutional focus, incorporating the perspectives of athletes themselves. The predominantly archival sources used in this study may have inadvertently marginalised the voices and agency of female athletes, emphasising the necessity for methodologies that prioritise their narratives. For instance, an oral history project could provide a more nuanced understanding of the experiences and perspectives of female athletes subjected to gender verification testing. Thus, while this dissertation has established a foundation for comprehending the historical dimensions of gender verification testing, future research must continue to interrogate these issues from diverse perspectives to ensure a comprehensive understanding of the complexities involved.

As Canadian sports policy advisor Bruce Kidd aptly stated, 'It's still the old patriarchal fear, or doubt, that women can do outstanding athletic performances. If they do, they can't be real women'.⁶ Indeed, in conclusion, the history of gender verification testing in sports unveils a deeply entrenched patriarchy that profoundly impacted female athletes. This dissertation goes beyond previous scholarship, showing how political, queer, and medical lenses converge to expose the gendered nature of these practices. From societal norms and institutional structures to geopolitical tensions, medical discourse, and evolving gender theories, the grip of cultural patriarchy was unmistakable.

Despite voicing criticism, doctors such as Professor Albert de la Chapelle and Professor Arne Ljungqvist, who challenged the suitability of chromosomal testing, remained involved in the system's efforts to define athletic femininity. Their focus on methodology over ethical implications inadvertently advocated for the exclusion of certain women, highlighting a cultural disdain for female muscularity and strength. In 2011, sports scholar Jamie Schultz questioned:

Why do genetic variations affecting autosomal chromosomes confer an advantage, while those related to sex chromosomes are viewed negatively and could lead to exclusion from competitive sports?⁷

This dissertation maintains that the answer to this question during the period 1968-1992 was the expression of the patriarchal fear of powerful, non-conventional women. Within the Olympic Arena, the IOC and its affiliates targeted those who defied Cold War Western standards of conventional femininity.

Ultimately, sporting institutions, under the guise of fair play, dehumanised female athletes, reducing them to objects and enforcing a competitive hierarchy that favoured men. This 'male domain' mentality hindered women's athletic development, perpetuating their marginalised status and upholding patriarchal values. The enduring influence of cultural patriarchy in sports is palpable, operating as a machinery that defines femininity through patriarchal terms. Institutions must now confront this legacy and strive for genuine equality, where athletes compete free from gender-based scrutiny. It is time to dismantle all machinery that seeks to control femininity and empower female athletes toward a future of genuine equality.

⁶ S. Findlay, 'Olympics Struggle with Policing Femininity', *Star* [London], (8 June 2012) cited in L. P. Pieper, *Sex Testing: Gender Policing in Women's Sports* (Urbana, IL, 2016), p. 186.

⁷ J. Schultz, 'Caster Semenya and the "Question of Too": Sex Testing in Elite Women's Sport and the Issue of Advantage', *Quest*, 63/2 (2011), p. 233.

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