

**POLICING GENDER: THE RHETORICAL FRAMING OF SEX IN  
WOMEN'S ATHLETICS**

An Undergraduate Research Scholars Thesis

by

SARAH C. ABOUD

Submitted to the Undergraduate Research Scholars program at  
Texas A&M University  
in partial fulfillment of the requirements for the designation as an

UNDERGRADUATE RESEARCH SCHOLAR

Approved by Research Advisor:

Dr. Sara DiCaglio

May 2020

Major: English

# TABLE OF CONTENTS

	Page
ABSTRACT.....	1
Literature Review.....	1
Thesis Statement .....	3
Theoretical Framework.....	3
Project Description.....	3
ACKNOWLEDGMENTS .....	5
INTRODUCTION .....	6
CHAPTER	
I.    WOMEN’S PARTICIPATION IN ATHLETICS .....	10
Caster Semenya.....	14
Public Rhetoric Regarding Caster Semenya.....	15
Medical Rhetoric.....	17
II.   SEMENYA IN CONTEXT: LOOKNG AT OTHER ATHLETES .....	21
Serena Williams .....	22
Simone Biles .....	25
Michael Phelps.....	27
CONCLUSION.....	29
WORKS CITED .....	31

## **ABSTRACT**

Policing Gender: The Rhetorical Framing of Sex in Women's Athletics

Sarah C. Aboud  
Department of English  
Texas A&M University

Research Advisor: Dr. Sara DiCaglio  
Department of English  
Texas A&M University

### **Literature Review**

The relationship between medicine and social understands of embodiment has been complicated for women and those who fall outside of binary gender. It has become hard for authoritative figures in the medical and political occupations to distinguish the biological fact and the social argument, as the two often feed off each other creating problematic rhetorical understandings of what bodies can and should do. An example of this challenging relationship appears in the term “sex hormone”, as it is manipulated to function by means of supporting social argument about female bodies and their assumed innate emotional instability. Earlier examples like the term “hysteria” – a word deriving from the Greek word for “womb,” – further support the historical pathologies of social behaviors and identities (Koerber 180). Any expression of emotional discomposure by a woman has long since been written off as a biological malfunction of the female body; crying as an emotional vulnerability, for example, is culturally a heavily exclusive female bodily behavior. Women become defined by their biological capabilities through social expectation and any variation of this requirement, such as

infertility, is deemed medically problematic (Jensen 50). As these examples show, the female sex has been subject to social and medical biases that create foundational barriers for the growing conversation about how intersex conditions complicate relations of sex and gender. Since intersexed bodies are categorized in the grey areas between male and female bodies, it is problematic considering the biased biological understanding of the female body and femininity. The application of strict qualifications used to govern and regulate a women's body also operates to define intersex people, as both fall under culturally determined variables, ultimately effecting how we interpret bodies.

This policing of gender has resulted in a limited participation of women in sports. The athletic field for female bodies has a complicated history, as women have been required to verify their sex in order to compete. My primary example being in 2009, as skepticism followed the runner Caster Semenya's success at the women's 800-meter World Championship competition. She was regarded as overly masculine, first upon physical appearance and low expectations involving female athleticism and then by the hosts, the International Association of Athletics Federations (IAAF), after they administered a sex-test that she "failed." The sex verification test recognized her as "not biologically female" because of her body's naturally high production of testosterone, medically defined as hyperandrogenism. Her "condition" rendered her unable to compete according to the IAAF, as it was deemed an unfair biological advantage. In men's athletics, where there is no sex verification, there is no limit on natural producing testosterone, only violations when taking steroids. Semenya, unaware of her condition and having not voluntarily taken substances to enhance her performance, was still ineligible (Young 331-332).

## **Thesis Statement**

The ability to govern the female body is enabled in the construction of medical texts to support cultural ideologies of gender and exhibited in the field of sports, as women's bodies are constantly targeted for surpassing social expectation and overcoming prejudices, a practice effectively influencing our understanding of the institution of binary gender.

## **Theoretical Framework**

This project falls within a growing field of feminist rhetorical science studies, requiring my research to consider multiple forms of rhetoric while interacting with a variety of fields (Booher and Jung). As a result, my research will include critical textual analysis of various medical and biological literatures and news stories discussing women's athletics through a feminist lens, focusing on the language and use of rhetoric.

## **Project Description**

My study explores the cultural and biological implications of gender by examining the rhetorical construction of intersex conditions, focusing primarily on the experiences of female athletes. Women aspiring to succeed in a career of physical performance are subject to scrutiny from audiences inhibited by biological and social biases, developed as a product of culturally established prejudices against female's physical capacity and misleading medical sciences firmly established within the parameters of female or male sexes. It is important to address the impact of binary sex on biological reasoning, gender expectations that dictate the social sphere, and the rhetorical influences between both fields. In approaching these topics with a perspective and lexicon beyond binary sex, we develop a better understanding of gender, human biology, and female capability as professional athletes. I am expanding on the research already accumulated on the topic of sex hormones, the reality of sex-verification testing distributed to female athletes,

and the specific case-study of women like Caster Semenya, a long-distance runner with hypoandrogenism, and others like her by providing a perspective in cultural and medical rhetoric. This research actively challenges the social and biological expectation of female athletes and intersex using thorough rhetorical analysis to understand the factors of language that craft the development of public opinion and ultimately argue to improve the conditions and expectations of female athletes by promoting awareness to the persuasion of language.

## **ACKNOWLEDGMENTS**

This project would not be what it is without the ever-present support of my dear advisor Dr. Sara DiCaglio and friend Gracie Rae Seguin, who showed me endless warmth and guidance throughout my time at Texas A&M.

I'd also like to recognize my family and its newest member, Stella, for their relentless love, as well as my partner, Zane, for his steady encouragement during my studies.

## INTRODUCTION

The nature of an individual word presents a paradox: the word itself simultaneously exists as its basic definition and as a product of the social sphere it lives in, adapted and regurgitated into a mutated hybrid of fact and culture. Even in medical text, where the structure of the literature aims to be impersonal and unbiased, it is difficult to maneuver around the unavoidable connotations each word carries. The process of influence is not a one-way channel, but rather is reciprocal; the vocabulary of the medical field is consumed by the public, just as the words are written into medical texts with pre-existing cultural influence. Consequently, language involving the body and bodily conditions moves between the realms, the medical and social definitions echoing and influencing one another in ways both overt and unrecognized. Regardless, the relationship between language and culture is inevitable, and it becomes our responsibility to acknowledge and question these relationships, especially within scientific texts, as they hold a political authority over the cultural perspective of the human body.

Isolating the vocabulary in medical text for close examination is not a new method of reviewing cultural perspective. Because science is foundational in our understanding of the world, re-evaluating these texts with a critical eye is an opportunity to expose the underlying cultural motives. The classic framing of sex as a process and as embodied states, for example, is confronted unfiltered by people of all ages, synchronizing the cultural idea of a the subordinate woman with their inactive reproductive egg and the socially dominate male representing strength in the imagery of his sperm. This particular concept has been examined by anthropologist Emily Martin in her foundational article “The Egg and The Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles.” In this article, Martin details the process



of the medical field injecting cultural ideas into their descriptions of scientific understandings of the body. As her title appropriately suggests, Martin focuses her analysis on the behaviors of the egg and the sperm, as the former is immobile and impartial, while the latter is commonly illustrated as opposite to the egg, active and strong. The egg is endlessly recorded as “large and impassive. It does not move or journey, but passively ‘is transported’... along the fallopian tube,” (Martin 489). Women have been historically expected to stay home, tending to the house and children, displaying the behaviors of impassive servitude to the active, working man; an experience all too closely personified in the medical description of the egg and the sperm. These parallels between the idea of frail femininity and a woman’s bodily functions, as with the masculine man and his equally empowered sperm, confirm the relationship between medical text and the social realm. This is reiterated as Martin expresses a recent alternative medical rendering of the egg and the sperm: the egg is perceived as the active character in the reproductive process, while remaining biologically accurate, supporting an framework distant from the idea of the ever-dominant male biology. Rather than the sperm “penetrating the egg”, for instance, the egg “traps the sperm” (Martin 493). This active verb shift to the egg from its previously passive form – doing the trapping rather than being penetrated – offers an approach to the biological truth that doesn’t dilute the bodily experience of a woman with unnecessary authority of the sperm over the egg. While this example addressed a specific and narrow gendered biological function, the message is clear; medical texts are not resistant to the influence of cultural conditions.

Similar practices of the social realm interfering with the medical field and vice-versa extend beyond suppression of the female body, effecting also the bodies that don’t naturally conform to the boundaries of binary sex. It is difficult enough as a woman to be recognized without fault, let alone bodies that aren’t as easily defined as female or male; this is present

especially in sports, as it's members include a variety of bodies purposed to push the boundaries of the body's capability, often challenging the structures of binary sex. These bodies are recognized as "intersex", bodies biologically designed with attributes of both male and female features; examples include a baby born with XX chromosomes and male external genitalia, or a child born with a vagina and internal testes (Fausto-Sterling). The problem that surfaces, and the ultimate exigence to identifying the relationship between language, science and culture, is its impressions of binary gender and the limiting environment of our vocabulary. This topic strengthens in importance especially when considering the bodies that are documented unfairly or regarded as irregular, with labels like "intersex" and the unavoidable application of our cultural climate that hinder our acceptance of bodily variations (Meloncon).

Using this underlying relationship between language and its accountability in medicine, biology, and social contexts, the rising concerns of gender in sports become more accessible, as sports have been kept primarily a male activity, considering their empowering biological record. By engaging in the narrative of medical texts, as Martin discusses to be socially driven, we can make the transition into the reevaluating of our biological understanding of athletic capacities in both men and women and how gender has been medically addressed in regards to the creeping involvement as a female athletic participant in previously male sports. Keeping in mind this close analysis of the medical lexicon, I aim to explore the particular case of Caster Semenya, a South African runner, whose gender and athleticism has raised concerns pertaining to the medical-social dynamic previously introduced.

I have divided my essay into two chapters; my first is dedicated to exploring the case of Caster Semenya, where I examine the environment of her situation by reviewing sports as it progressed through history, as well as the specific approaches to Semenya's controversial victory

through the analysis of social and medical rhetoric discussing her body. In my second chapter, I situate Semenya among other athletes who experience varieties of bodily oppression that reinstates Semenya's current circumstances, including tennis star Serena Williams and Simone Biles. In my review of these women, I engage in the intersectionality of their experiences, applying it to the overall cultural vision of women and their bodies. Lastly, in the second chapter, I make a final analysis of the male swimmer Michael Phelps, to further situate my argument of gender, using his welcomed success and bodily image as contrasting expectations between male and female athletes.

## CHAPTER I

### WOMEN'S PARTICIPATION IN ATHLETICS

Women had a hesitant entry into the field of sports as the public sphere slowly acknowledged the female capacity for physical endeavors; seeing the practice of muscle-building and athleticism defied the culturally familiar domestic lifestyle associated to womanhood, creating a roadblock for those with authority to break down the barriers that kept women off the field.

Even as the involvement of women is continuously expanding, it is important to recognize the history of women's limited involvement in order to understand our current atmosphere. As the push for women's athletics began, it was met with reluctance and the establishment of obstacles to regulate participants. In 1952, Avery Brundage, the International Olympic Committee (IOC) president at the time, instilled the practice of sex testing on women intending to compete to verify their womanhood. Lindsey Parks Pieper, the author of the article "Wolves in Skirts?": Sex Testing in Cold War Women's Sports", discusses Avery Brundage in length, claiming that "Brundage's ideals mirrored the dominant ideology in the United States. Many Americans feared that female physical exertion damaged femininity" (85). By involving themselves in sports, women exhibited traits of athleticism that combatted the existing idea of the inferior woman; this change from the petit figure to the one displaying muscle appeared to the public as crossing lines into manhood. Pieper goes on to make the comparison to the values of the Soviet Union in their female athletes, who "encouraged muscularity and bulk as attributes necessary for athletic success" (86), opposite to the American view of "grace as signifiers of athletic femininity" (86). This need to regulate female participants was also due in part to the

infiltration of men in women's sports, as there was a threat of Eastern European athletes willing to cheat for a Communist victory – however, the only documented case happened in 1936 as a member of the Nazi youth, Hermann Ratjen, competed as “Dora” in women's high jump, only placing fourth (Fausto-Sterling). However, an article in 2009 was published, bringing to light the ambiguous gender of Ratjen who, having been truly raised a girl named Dora, was cleared of the reputation as a fraud. Ratjen only later changed their name to a male one, having been exposed for having atypical genitalia, and accused the Nazis of pressuring him into participating as a woman despite his own gender-uncertainty (Padawer). Regardless, the impact of this “infiltration” left an idea in the minds of Americans that it would happen again without enforcing a strict regulation against female participants. The United States, as a result of their opposition to the Soviet Union's perception of femininity and the tensions of the Cold War, began to emphasize a polarity of the Soviet Union's ideology that has left a stain on how society interprets the value of a visibly strong woman. In 1988, Maria Patiño, an Olympic hurdler for Spain's team and the first to challenge the institution of sex testing after “failing” hers and temporarily barring her participation, inevitably starting the motion of challenging the systematic oppression of women athletes (Fausto-Sterling).

A modern example, much like Patiño's, unfolded in 2014 when Dutee Chand, a star runner for India, was secretly administered a sex test as a response to her muscular appearance. Her competitors and their coaches characterized her defined muscles as overly masculine, claiming “her physique seemed suspiciously masculine: her muscles were too pronounced, her stride was too impressive for someone who was only five feet tall,” (Padawer). It seems impossible to be a runner and have too impressive of a stride and too toned of muscles, as the occupation of an athlete requires not only competing against others but the boundaries of the

human body, a process which requires building muscle and performing with above average excellence. This response to Chand's capabilities, and accounting them for skill in excess, demonstrates the unreasonable limitations on women, in manners formerly institutionalized during the Cold War.

As the social climate adjusts to growing presence of women, attempts to extend the involvement of women in sports were made. One measure taken happened by the passage of Title IX in 1972, which eliminates exclusion from sports in the United States based on discrimination of sex in educational programs and activities benefiting from Federal financial assistance ("Title IX"). As a result, the participation in women's sports increased, as this bill opened many doors for women who would have otherwise been unwelcomed. However, Title IX didn't cure the entirety of discrimination involving women in sport, as women still experienced the pressures of other cultural limitations that continued to discourage strength in women.

An example of this unshakable skepticism lives in the modern struggle for recognition of able women soccer players who fight for respect and equal pay as the men's soccer teams. Kim Elsesser, a senior contributor to Forbes magazine, published an article "U.S. Soccer Says Women Don't Deserve Equal Pay Because They Have Less Skill". Elsesser targets the generalized understanding that women are less capable athletes than men, illustrated in the response to the thirty-eight members of the women's national team who sued the U.S. Soccer Federation last march. The court responded, attempting to justify the gender-inequality with the argument that men and women are innately different in strength and speed, claiming that competing in the men's sports should continue to be rewarded with higher pay, as women competing against women is, essentially, easier (Elsesser). The flaw in this reasoning lies in the inability to dissociate the ability of men and women on the basis of strength. If the structure of

sports involves the division of gender, then how is it equal to still reduce women's pay for participating to their capability in their designated division? If the strength of men is statistically superior, does the position of inferiority for women in sports become inevitable, and the success become immovably secondary to the success of the ever-powerful man? The problem in weighing the quality in speed and strength, presents itself in the neglect of other important aspects of athleticism. After all, "the USWNT [U.S. Women's Nation Team] won the World Cup last summer, while the country's men failed to qualify for the 2018 World Cup," (Elsesser), proving that the women on the U.S. soccer teams exceeding in their athletic division surpassed the men in theirs – and the U.S. Soccer Federation is still convinced they aren't to be celebrated. This instance of the USWNT illustrates the reduction of women's capabilities, as without the comparison to men, their success would be unhindered, rather than reduced on account of social expectations of women and men. A clever illustration of this power dynamic is portrayed in Elsasser's article, as she theorized a situation in reverse as a psychological exercise:

Imagine a world where women's sports dominated for hundreds of years. Only female athletes are sports heroes, and only women's sports are televised. Then men begin playing sports at a professional level. Would we still use strength and speed to define ability in a sport? No, we'd likely say the men's game is too physical and lacks the finesse, intelligent playmaking and teamwork of the women's game. If we had to rationalize paying men less, we might further cite studies indicating men lack the flexibility of women (Elsesser).

As there is no way to know the true situation of this hypothetical, Elsesser captures the general ideology surrounding the response of the court. After all, the sport is not a testimony of one or two skills, but an accumulation of multiple; just as each body is exemplary in ways unrestricted by the constrictions of social impressions.

### **Caster Semenya**

The particular instant that caught the media's attention most recently belongs to Caster Semenya, the South African runner with a strong build and incredible speed. She, among many women in sports, are monitored, subjected to sex-verification tests required of women participating in the Olympics. As previously discussed, this test's methodology of determining the gender was adjusted in 1968 from visually evaluating physical appearance to chemically screening for chromosomes, administered by the International Olympic Committee (IOC) and the International Athletic Association Federation (IAAF) (Fausto-Sterling). Similar to the case of Dutee Chand, whose gender came under review after a rise in public concern over her body, Caster Semenya became the focal point of gender controversy. Upon Caster Semenya's success in the women's 800 meter at the 2009 International Association of Athletics Federations (IAAF) World Championships, uncertainty quickly overwhelmed the public regarding Semenya's qualifications as a woman in the race. The results of the sex test diagnosed Semenya with "hyperandrogenism", attributing her masculine appearance and physical prowess to an excessive production of testosterone. In the case of Caster Semenya, whose body is muscular and powerful, we see the way these ideologies of gender are expressed throughout society, reiterated by public perception, and embedded in – not only our politics – but our language.



## **Public Rhetoric Regarding Caster Semenya**

Much of what reinforces this problematic aesthetic model-woman in sports is the public response to any noticeable variety in body shape and athleticism. For Semenya, whose body is conditioned for running, criticism came from the public who aren't accustomed to seeing muscular women, even in the opinion of sports fans and participants. In an article by Stephanie L. Young titled "Running Like a Man, Sitting Like a Girl: Visual Enthymeme and the Case of Caster Semenya", Young captures various responses to Semenya's excellent performance and her supposedly contradictory gender assignment. Within the introduction of her essay, Young presents the sequence of Semenya's controversy, writing: "following her victory, questions were raised about her sex," (331). This seemingly transparent sentence highlights the concept of gendered expectations, as the concern over Semenya's identification as a woman came only after she excelled in her division, completing the race by a whole two and a half seconds before her nearest competitor. There was no concern about Semenya's body before the race, as she had not exceeded expectations that discouraged woman from extraordinary success. The social commentary from news reports and magazine publications, compiled in Young's article, represent the boundaries of the female body in the public eye as they degrade her womanhood, claiming that her "powerful, flat chest... like Usain Bold" (Malone) are beyond the realm of women. In describing Semenya as "powerful", only to follow the comment with a direct comparison to an impressive male physique diminishes Semenya's success as a woman, using a man to highlight her success and features, adding to the accusations of her false womanhood.

As Young established, media coverage of Semenya's body focuses on her lack of belonging within the gender binary, emphasizing the social and embodied norms she does not ascribe to. In November of 2009, another article discussed Semenya's body, titled "Either/Or" by

Ariel Levy in *The New Yorker*. Levy writes that “Semenya is breathtakingly butch. Her torso is like a chest plate on a suit of armor. She has a strong jawline, and a build that slides straight from her ribs to her hips.” Many elements of this passage articulate a broad cultural perspective, beginning with the rhetorical integrity of the term “butch”, although Levi herself isn’t using the term maliciously. The word is historically dense, having been referred to lesbian women performing the “masculine” role, and proving to be yet another instance of the dominant, heterosexual ideology compartmentalizing non-nuclear dynamics, like lesbian women (Koller). However, the LGBTQ+ community has reinstated the word as their own, defining it anew and embodying the identity with affection (Miles). That being said, it serves as a reminder of previous conditions for labelling the “abnormal” and the weight a word can carry, even after its altered political situation. Secondly, making the comparison of her torso to a knight’s – like Malone’s comment – diminishes the image of a female body as capable of being powerful. In constantly paralleling power to a flat chest, the opposing full breast becomes the feminine, inferior. In other words, the connection between a flat chest and power represents this underlying impression that breasts are not associated with power, continuing the reduction of the female body.

In response to Semenya’s controversy, *YOU* magazine published an article featuring the runner in makeup, wearing a dress and heels. While the article quoted her enthusing over her make-over, it was included in the discussion of Semenya’s sex. Dana Hughes, writer for *ABC News*, opens an article with a reference to *YOU*’s makeover: “Caster Semenya, the South African Runner undergoing tests to prove whether she’s female, was all woman on the cover of a *South African Magazine*”. On the field, Semenya’s sex is under review, but once she is adorned in the familiar feminine glamour, she is doubtlessly a woman. The ideology that women’s bodies

function in society solely as projections of beauty is harmful to the expansion and acceptance of bodily variety, as it reduces their bodies to objects of sexual desire. As an athlete, whose body is trained for physical competition, attractiveness is not a part in the sport, nor should it be considered when discussing an athlete's gender. The caption used by YOU, "We Turned SA's Power Girl Into a Glamour Girl—And She Loves It!" is also scrutinized for addressing her as "girl", recognizing the historical use of "boy" and "girl" as racial slurs in United State's history to signify someone as inferior (Young 338).

### **Medical Rhetoric**

As discussed in the previous section, Caster Semenya's body has been the victim of gender stereotyping, as her appearance does not conform to the archetypical female physique. Socially, her body is ostracized, relying heavily on the medical response to confirm or deny the accusations targeting her gender. After Semenya was tested to clarify her sex, she was diagnosed with Hyperandrogenism, a condition where a female body produces excess levels of testosterone (Young). Though her body produced the hormone naturally, Semenya wasn't allowed to run unless she accepted medication to reduce her testosterone levels, suggesting that the solution to her masculine appearance and speed relied on the reduction of the hormone.

### *Hormones*

The shift that took place in method of identification of gender by the athletics' governing bodies – from physical examination to chemical testing – demonstrated an expansion in how gender is understood. Gender is recognizably more complex than external appearance, making the redefining of boundaries, to keep gender on a two-part scale of man or woman, increasingly challenging to orchestrate. The current procedure of testing a persons' sex administered by the IAAF involves measuring hormone production, attempting the classification on the basis of

testosterone levels. However, this regulation of hormones is instructed under the idea that hormones respond to gender, a relatively new relationship between biology and social perspective that has become muddy. By claiming Semenya as intersex and excluding her from fully identifying as a woman based on high testosterone levels, the medical professionals supporting this case are confirming the idea of testosterone as a male-hormone. What is often forgotten, is that both are ever-present in male and female chemical makeup.

Hormones are broadly understood to behave as communicative chemicals, responsive to the everchanging internal and external conditions of the body, like body-fat patterning, stress, puberty, growth regulations, and breastfeeding (Worthman). The list of functions and specific hormones appear endless, yet the primary focus of my argument involves the “sex hormones”, testosterone and estrogen, presumably responsible for the dividing features of men and woman’s bodies. In an article by Carol M. Worthman, “Hormones, Sex, and Gender”, she captures the concerning emergence of “the use of hormones to validate cultural beliefs about sex differences in the biology of reproduction, behavior, cognition, health, and aging,” (596). The growing concept of “sex hormones”, first surfacing in the early 20<sup>th</sup> century, became adopted by the medical field in regards to gender, to rationalize the variations between the binary sexes. In a similar article by Amy Koerber “From Hysteria to Hormones and Back Again: Centuries of Outrageous Remarks About Female Biology”, Koerber emphasizes the concerning manipulation of the sex hormones to support the social ideology of masculinity and femininity, enabled by the word “hormone” itself. Koerber writes, that “the term ‘hormone’ started gradually to replace the concept of hysteria – which had been used to explain female problems since the beginning of recorded history—while still allowing ancient ideas about female biology to persist in modern scientific texts,” (182). To elaborate, the term hysteria – deriving from the Greek word for

“womb” – was often an aspect of scientific argument justifying the belief of universal irrational female behavior (Koerber). The incorporation of the word hysteria, and its deep ties to prospected ever-emotional-female, is a moment in history seemingly repeated by the introduction and contortion of the word hormone, as it is applied to the female body to justify the idea of biological inferiority. While hormones are undeniable variables of our bodies’ development, the myth is that hormones are the cause of certain sex variations, like aggression in men and emotional instability in women. Returning to Worthman’s article, she clarifies that “hormones do not directly cause specific biological or behavioral effects. Rather, hormonal action is mediated through an array of other factors. These factors include: circulating binding proteins, metabolic enzymes, cellular receptors,” (595) and the list goes on. To rely on hormones alone, like testosterone, to classify and categorize a body would be arguably inconclusive. In Semenya’s case, barring her from participating in sports on the basis of testosterone levels alone is medically unreliable reasoning.

### *Diagnosis*

Even though Caster Semenya is recognized as a woman after her sex verification test, her body is still labeled as irregular, being given a medical condition to supply reason for her masculinity. She is regarded as having been “diagnosed” with Hyperandrogenism; the term, described in Lester King’s book *Medical Thinking: A Historical Preface*, as actively “central to the practice of medicine, for it identifies the disease which the patient suffers,” (90). The author emphasizes this definition by reiterating the sentence, word for word, only a few paragraphs later in his opening to the Chapter “Diagnosis”. Lester King has an impressive medical history, having dedicated his life to medical studies, crediting his definition of diagnosis with years of professional involvement in the field to support this claim. Applying King’s description to the

“diagnosis” of Hyperandrogenism, it becomes clear why this approach is problematic in regards to our understanding of gender. To clarify, Hyperandrogenism describes a woman’s body that creates excessive testosterone – “excessive” being social prescribed, as bodies are made biologically with no awareness to the boundaries we assign. By “diagnosing” Hyperandrogenism to women, there is a connotation of disease, suggesting the body is experiencing harmful irregularities. Caster Semenya’s body caused her no trouble with her existing levels of testosterone, rather the “diagnosis” only highlighted a wonderful advantage in her chemical makeup. It wasn’t until after medical experts prescribed a “solution” to her diagnosis did she experience bodily harm: from 2010 to 2015, she took birth control, at the insistence of the IAAF, which in turn, caused her to feel ill with fever and abdominal pain (Gregory). Society, being unsettled by a woman surpassing the normative and nimble idea of femininity, declared Semenya’s condition a disease, on a strict basis that her body was irregular, therefore harmful to society, not harmful to herself. Lester King follows his definition of “diagnosis” with a detail of its function, walking reader’s through the processes of diagnosing: “before [medical professionals] make the actual assignment to a class, we have the reflection and discrimination, that makes us say, ‘*This* object belongs in *that* category and not in any other,” (91). By recognizing the label of a diagnosis being inclusive and exclusive in areas of the medical field, it reinforces the social and medical gender-binary, as a body is one sex and not the other, rather than offering sex on a spectrum of fluctuating biological features. Thus, the creation of “intersex”, whose bodies are not easily classified as images of man or woman in contemporary culture.

## CHAPTER II

### SEMENYA IN CONTEXT: LOOKING AT OTHER ATHLETES

Women in the athletic field are constantly required to straddle the social demands of being both athlete and woman, being both physically adept and weak. Going back to the Cold War, the policing of the female body became more openly practiced, and as the possibility that women could coexist in both the athletic and feminine domain was actively avoided in the public eye. While cases like that of Caster Semenya are in the current spotlight, there are others including women like Simone Biles and Serena Williams who confront this romanticized femininity during their participation in sports. And in order to fully understand Semenya's case, we need to put in the context of the broader treatment of women in sports. The public continues to find ways to diminish the female body as athletes by expecting them to live up to the performances of men, while demanding they conform to the stereotypical female identity. By exploring the identities of other athletes like Simone Biles and Serena Williams, we can better understand Caster Semenya, and open the discussion to other pressing topics like how race and other forms of intersectionality overlap (Lichfield).

A method of marginalizing black women's bodies involved relentlessly comparing them to men or animals, desexualizing and dehumanizing their identities and reinforced their mistreatment by constructing visuals of black women's bodies as hypersexualized or overly masculinized. This practice masks their abuse, by belittling their femininity and redefining their bodies to polarize the white woman; alike reasonings exists in our culture still, in the inhumane ways people find to revoke the respect of unique bodies and successful black women. These

means of oppression are endlessly problematic and can be seen especially in the athletic field where bodily power determines success.

### **Serena Williams**

As a woman of immense skill on the professional tennis court, Serena Williams quickly took to fame, champion of 23 Grand Slams. But as we've seen for women in sports, her success was not easily digested by the public. Given the conservative nature of tennis, historically situated as a predominantly white sport, Williams's athletic superiority was met with skepticism fueled by racist claims about her muscular body and sexist accusations regarding her supposedly invalid womanhood.

Several examples of this discriminatory remarks about Williams are summarized in Erika Nicole Kendall's article for the Guardian magazine, including the comment made in 2014 from a Russian tennis official addressing Serena and her sister as "the William brothers", and in 2012, when competitor Caroline Wozniacki distastefully "stuffed her top and skirt, doing her best Serena imitation by mocking her shapelessness,". The comments and demonstrations associating Williams's body structure with that of a man's, aiming to discredit both her femininity and athleticism, impossibly demanding she assume a more "girlish" physique yet be as successful in a sport that demands muscle power. This duality in social expectation is complicated further in the racial inflictions made by Wozniacki while mocking her body, as it reflects a lingering cultural history of dramatizing and brutalizing the enslaved woman's body for looking different than the era's ideal white woman who weren't subject to physical labor. In the context of contemporary sports, black female athletes like Williams are still victim to these remarks in attempts to belittle their accomplishments.



In GQ magazine's 2018 "Men of the year" release, Serena Williams was featured; the artist of the magazine stylistically crossed out the "Men" in "Men of the Year", replacing it with "Woman", controversially in quotation marks (Verry). The mixed reaction of this magazine included opinions of those not offended, isolating the use of quotes as only a stylistic choice, and others who reviewed the use of quotations around "women" to be insensitive to her history of being masculinized as a black female athlete. Since her exposure on the tennis court, Williams has confronted accusations regarding her body circulating the internet, challenging her identity as a woman due to her muscular physique (Dawson). These comments dissociating her womanhood with her appearance on the court deepen the damaging dichotomy between femininity and power. Like Semenya, Williams's body is athletically build and socially penalized for it, as society refuses to believe she is capable of being both a woman and a dominant figure in sports.

The regulation of a woman's body is often policed by monitoring clothing, a particularly involved subject in the realm of tennis. The appropriate attire for the tennis court heavily reflects the ideologies at the time, as it once was expected women in the early 1900s to wear layers of cloth down to their high-heels, in "corsets constructed with metal or whalebone... [that] constricted the breathing and pierced the flesh of these athletes" (Schultz 343). As time went on and women grew more accustomed to challenging the social climate of the time, women's athletic wear became more personalized; yet, the topic of athlete's clothing never ceased to attract attention. Fast forward to 2002, when Serena Williams won the U.S. Open tennis tournament, and the discussion revolved around her choice attire, being a black and flexible, skintight material. This "catsuit" – as it became regularly called by the media, and later embraced by Williams herself – attracted the criticism of many. In an article by Jaime Shultz

“Reading the Catsuit”, the outfit and its public reaction is compared to a similar controversy in 1985, seventeen years prior, involving a similar suit worn by Anne White. Initially, the appearance of White in the suit caused officials to declare it unprofessional, immediately declaring it unallowed on the field; the public, however, admired her for the display of progressive efforts and attractive figure. Schultz writing that “it was pronounced that White was an attractive woman with a body that justified the outfit” (343), announcing the prerequisites for a socially acceptable outfit, being as long as it is worn by a worthy body. Needless to say, this instance in women’s tennis history came to mind as Serena Williams, suited in her black body-suit, took to the court in the 2002 U.S. Open, receiving a very different response. While Williams was also rewarded with praise for her boldness that challenged the feminine values on the court, she was also socially chided for her deliberate display of such a masculine body on a woman. Scholars, like Shultz, who reviewed the public response and the naming the outfit a “catsuit”, condemn the assigned title of “catsuit” as it rhetorically provokes potential racist and sexist connotations. The term “catsuit” shares the definition of being an one-piece article of clothing, as well as a style of erotic dress or lingerie; when considering the latter definition as the one in regards to Williams’s choice of clothes, it is argued that “Williams joins the legions of other female athletes sexualized by the popular media,” (Shultz 344). As seen in the patterns of black women being simultaneously overly sexualized and masculinized, this approach reveals an unsettling cultural response to Williams body. In comparison, the white athlete, Anne White, wore a similar suit, which was only ever called a “bodysuit”. Another point made by Shultz involves the connection between “longstanding, racist ideologies that equate African heritage with animality,” (344) and the use of “cat” in describing Williams’s appearance. Of course, Williams has taken a liking to the term, assuming the feline role and referring to herself and the

catsuit as sexy and innovative; although her participation in the catsuit's title doesn't dissolve or dilute the possible origins and involved history in its name. On social media, Williams embodies the suit as a post-pregnancy outfit, dedicating it to mother's alike whose recovery from pregnancy was tough; it is also effectively functioned as a full-body compression suit to help against blood clots, a medical problem she has dealt with. However, regardless of its sentimental representation of the healing female body or its direct health benefits to Williams, the French Tennis Federation still published a new dress code banning the "catsuit" (Friedman).

Unfortunately, her experience as a black woman in sports resonates for many female athletes who battle layers of stereotypes about their bodies, fueled by historical prejudices of women and black bodies. The negative reception and ultimate rejection of the "catsuit" by sports officials is an exact enactment of the oppressive policing of women's bodies, communicating their willing disregard for potential health risks. Serena Williams's history in tennis serves to broaden our understanding of Caster Semenya's experience, as it contextualizes Semenya's situation as a black athlete, whose appearance sparked controversial discussions. Both women have been the target of sexist expectations of the female body, defeminizing their muscles, and proving the persistent social divide between power and beauty.

### **Simone Biles**

Although she is considered the most decorative gymnast – referring to her numerous medals earned – Simone Biles similarly faces criticism in the form of gendered comparisons and racist comments. Regardless of her record-breaking skill, descriptions of her capabilities are capped by men's superior competence; highlighted in Jonathan Liew's article, he writes that "her breathtaking floor routine stands comparison with anything a man has ever produced," unintentionally demonstrating the socially expected maximum capacity for a female athlete as

inevitably below that of a man's. Even while Biles surpasses both sexes gymnastic record, there is a stigma around the female body that rejects the idea of a woman overcoming a man's highest record. Liew even excuses the fame of Simone Biles's signature vault, "the Biles", by reminding readers it is unattempted by any man, anticipating a likely scenario of a male athlete properly executing "the Biles" soon to come. This unnecessary foresight diminishes the present excitement of Biles's skill by creating a hypothetical to serve as reminder of female inferiority. Liew also discusses moments of racial targeting that illustrate how some people suggest Biles' success to be accredited to her race, as "one of her Italian rivals Carlotta Ferlito jokes that she and her team-mate would 'paint their skin black, so then we could win too'." Comments like these are intended to diminish the skills of black athletes by justifying any achievement to the color of their skin. Much of what Carlotta Ferlito refers to is the change in scoring for Gymnasts in 2006 to a Code of Points that allowed a system of judging based on creativity and skill rather than the traditional, limiting score of 10, assigned by grace and execution of unoriginal performances. This change in scoring is interpreted as improving "chances for coloured people (known to be more powerful) and penalizing the typical Eastern European elegance, which when gymnastics was more artistic and less acrobatic, allowed Russia and Romania to dominate the view'," (Liew). This expansion of opportunity being seen as a crippling adjustment to the predominantly white contestants proves the reluctance to abandon the antiquated ideologies "grace" being the sole function of female athleticism to include strength, power, and self-expansion in sports.

Biles's participation in the 2016 world championship games offers another perspective on women's athletics, involving the unprecedented recognition of her talent. According to an NPR Sports article by Laurel Wamsley, the dismount named after Biles herself was

decidedly rewarded very little to discourage the incorporation of it in the competition, scoring it “a difficulty rating just one tenth higher than the same move with one fewer twist,”. Though Biles has made it clear she can properly execute the dismount, her enthusiasm was curbed by the concern of the international gymnastic authorities for the safety of other athletes attempting the move. Biles is quoted for arguing against its low score value, seeing as the skill “the Biles” requires and her capability of succeeding as worthy of recognition. By overriding the potential brilliance of an athletic body, the sport’s administrators have made it clear that their values lie not in the art of pushing athletic boundaries and embodying the defiance of physical limitation, but rather to remain stringent on their regulations against bodily excellence among able women.

What is present in cases like Simone Biles and Caster Semenya is the response to overwhelming success with social reasoning that lessens the impact of their victories. The compulsive and needless justification for strong women, with accusations of excessive masculinity or race, maintain the cultural ideas of the inferior woman. This ideology is a continuous factor in the strict regulations of female bodies and a result of the attempt to keep dominant the polarized perspective on gender.

### **Michael Phelps**

The concerning standards for women in the athletic scene are only enhanced by the idolizing of male athletes, whose biological abilities are accepted, unchallenged, and praised. The success of swimmer Michael Phelps proves an appropriate testimony to the comparison of treatment between the success of athletic women and men. Similar to Semenya, Phelps was born with biological capabilities that proved advantageous in the sport of competitive swimming with a torso longer than his legs, arm length surpassing his height with a six-foot-seven-inch arm span, feet that fit a size fourteen shoe with a flexibility fifteen degrees beyond average (Cooper).

His distinct body type proves suitable for swimming, as Semenya's testosterone production is attributed to her running; most importantly, both are natural. These two athletes incorporated their body's capabilities into their careers, pursued athletics, yet Semenya faces obstacles that Phelps has not seen, by privilege of his gender and the social acceptance of his success. In 2005, a National Geographic article written by Stefan Lovgren reiterates the double-standards held between female and male athletes. Stated boldly in the title and repeatedly throughout the context of his article, Lovgren reaffirms the biological advantage of Phelps' bodily conditions, as well as numerous other athletes with internal factors supporting their athletic success: sprinters Maurice Greene and Marion Jones have excellent fast-twitch muscle fiber percentage that enables bursts of physical exertion perfect for sprints; cyclist Lance Armstrong's exemplary lung capacity, allowing for more oxygen consumption, and therefore higher endurance for long distance biking. By the end of his article, he poses the question "how much better can elite athletes get?" using previous records to compare and estimate modern athletic accomplishment, and offering the counterargument of endless, promising improvement. The remarkable predicament exemplified in this article is its contradicting nature to the reality of female athletes, whose biological properties are faults to their femininity and reason for concern versus the infinite ability of men. The genetic expectation is limitless in men's sports, the question being how far they can push their body, not how much is too much. Considering the frustrating lack of acknowledgment for Simone Biles, in fear of exceeding the limitations of women, it is clear the unequal hopes for men and women athletes to physically exceed.

## CONCLUSION

An athletic body is tasked with pushing physical boundaries, making the sports field an intersection of medicine, biology, gender, and politics. Women are only allowed to inhabit a limited physical capacity, where female strength displayed in excess complicates the social structure of gender. Biologically, men are physically distinguished, a spoonful of spinach away from being capable of any challenge of strength. Women in contrast are understood to be – for lack of better words – genetically handicapped, fragile and petite. Athletes like Caster Semenya defy this social restriction of physical capability projected onto women, as Semenya has built a powerful body suited for her sport that makes the public uncomfortable, forcing the association between femininity and strength. Rather than accepting this possibility of a powerful woman, society bargained with the chance that she was rather a man and spoke volumes to our reluctance in accepting bodies outside of the social and medical norm.

Caster Semenya is one of many women occupying the complicated space between brilliance and biased social order, as the athletic scene demands compliance to both. Meanwhile, the attention on sex among female athletes is the segue needed to tackle the out-of-reach topics like intersex, the gendered medical attitudes towards unique bodies, and intersectionality experienced by black women. By unburying history and presenting it beside these contemporary predicaments involving gender, it is clear the length that society will go to subdue and police the individual body.

By exploring these topics of female athleticism further and challenging the vigorous regulations applied to bodily experiences, we can make a cultural shift into a more collectively

welcoming environment of body-types and biological designs that exist beyond the gender binary.



## WORKS CITED

- Armour, Nancy. "Opinion: Simone Biles Follows Michael Phelps, Usain Bolt as Olympic Icons." *USA Today*, 21 January 2020. [usatoday.com/story/sports/columnist/nancy-armour/2020/01/21/simone-biles-fills-void-michael-phelps-usain-bolt/4531563002/](https://www.usatoday.com/story/sports/columnist/nancy-armour/2020/01/21/simone-biles-fills-void-michael-phelps-usain-bolt/4531563002/).
- Booher, Amanda K., and Julie Jung. *Feminist Rhetorical Science Studies: Human Bodies, Posthumanist Worlds*. Edited by Amanda K. Booher and Julie Jung, Southern Illinois University Press, 2018. *EBSCOhost*, [search.ebscohost.com/login.aspx?direct=true&db=cat03318a&AN=tamug.5658319&site=eds-live](https://search.ebscohost.com/login.aspx?direct=true&db=cat03318a&AN=tamug.5658319&site=eds-live).
- Cooper, Emily J. "Gender Testing in Athletic Competitions – Human rights Violations: Why Michael Phelps is Praised and Caster Semenya Is Chastised." *Journal of Gender, Race & Justice*, vol. 14, no.1, 2010, pp. 233-264. *EBSCOhost*, [search.ebscohost.com/login.aspx?direct=true&db=edshol&AN=edshol.hein.journals.jgrj14.12&site=eds-live](https://search.ebscohost.com/login.aspx?direct=true&db=edshol&AN=edshol.hein.journals.jgrj14.12&site=eds-live).
- Dawson, Alan. "How Serena Williams Responds to Accusations That She 'Was Born a Guy'." *Business Insider*, 31 May 2018. [www.businessinsider.com/serena-williams-responds-to-accusations-she-was-born-a-man-2018-5](https://www.businessinsider.com/serena-williams-responds-to-accusations-she-was-born-a-man-2018-5).
- Desmond-Harris, Jenée. "Despite Decades of Racist and Sexist Attacks, Serena Williams Keeps Winning." *Vox*, 28 January 2017, [www.vox.com/2017/1/28/14424624/serena-williams-wins-australian-open-venus-record-racist-sexist-attacks](https://www.vox.com/2017/1/28/14424624/serena-williams-wins-australian-open-venus-record-racist-sexist-attacks).
- Elsesser, Kim. "U.S. Soccer Says Women Don't Deserve Equal Pay Because They Have Less Skill." *Forbes*, 11 March 2020. [www.forbes.com/sites/kimelsesser/2020/03/11/us-soccer-says-women-dont-deserve-equal-pay-because-they-have-less-skill/#474321e6bb0f](https://www.forbes.com/sites/kimelsesser/2020/03/11/us-soccer-says-women-dont-deserve-equal-pay-because-they-have-less-skill/#474321e6bb0f).
- Fausto-Sterling, Anna. *Sexing the Body: Gender Politics and the Construction of Sexuality*. Basic Books, 2000.
- Friedman, Megan. "French Open Bans Serena Williams From Wearing Her Life-Saving Catsuit." *Elle*, 24 August 2018. [www.elle.com/culture/celebrities/a22826732/serena-williams-catsuit-french-open-dress-code/](https://www.elle.com/culture/celebrities/a22826732/serena-williams-catsuit-french-open-dress-code/).
- Gregory, Sean. "Caster Semenya Won't Stop Fighting for Her Right to Run, Just as She Is." *TIME*, 18 July 2019. [time.com/5629249/caster-semenya-interview/](https://time.com/5629249/caster-semenya-interview/).
- Hughes, Dana. "Runner Semenya Glams Up as Mag's Cover Girl." *ABC News*, 9 September 2009. [abcnews.go.com/International/semeyna-cover-girl-amid-gender-spat/story?id=8528363](https://abcnews.go.com/International/semeyna-cover-girl-amid-gender-spat/story?id=8528363).

- Kendall, Erika Nicole. "Female Athletes Often Face the Femininity Police – Especially Serena Williams." *The Guardian*, 14 July 2015. [www.theguardian.com/commentisfree/2015/jul/14/serena-williams-female-athletes-femininity-police](http://www.theguardian.com/commentisfree/2015/jul/14/serena-williams-female-athletes-femininity-police).
- King, Lester S. *Medical Thinking: A Historical Preface*. University Press, Princeton, New Jersey, 1982, pp. 90-104. *JSTOR*, [jstor.org/stable/j.ctt7ztt4k.7](http://jstor.org/stable/j.ctt7ztt4k.7).
- Koller, Veronika. "Butch Camp: On the Discursive Construction of a Queer Identity Position." *Gender & Language*, vol. 3, no. 2, November 2009, pp. 249. *EBSCOhost*, [search.ebscohost.com/login.aspx?direct=true&db=edb&AN=51264041&site=eds-live](http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=51264041&site=eds-live).
- Liew, Jonathan. "Biles Has Shown That Beauty Lies in Breaking Boundaries." *The Independent – Daily Edition*, 3 November 2018. [advance.lexis-com.srv-proxy2.library.tamu.edu/api/document?collection=news&id=urn:contentItem:5TMV-39P1-JCS0-D37K-00000-00&context=1516831](http://advance.lexis-com.srv-proxy2.library.tamu.edu/api/document?collection=news&id=urn:contentItem:5TMV-39P1-JCS0-D37K-00000-00&context=1516831).
- Litchfield, Chelsea, et al. "Social Media and the Politics of Gender, Race and Identity: The Case of Serena Williams." *European Journal for Sports and Society*, 22 March 2018. <https://doi.org/10.1080/16138171.2018.1452870>
- Lovgren, Stefan. "Olympic Gold Begins with Good Genes, Experts Say." *National Geographic*, 20 August 2004. [www.nationalgeographic.com/science/2004/08/olympic-gold-good-genes/](http://www.nationalgeographic.com/science/2004/08/olympic-gold-good-genes/).
- Malone, Andrew, et al. "'She Wouldn't Wear Dresses and Sounds Like a Man on the Phone': Caster Semenya's Father on His Sex-Riddle Daughter." *Daily Mail*, 22 August 2009, <https://www.dailymail.co.uk/news/article-1208227/She-wouldnt-wear-dresses-sounds-like-man-phone-Caster-Semenyas-father-sex-riddle-daughter.html>. Accessed 26 January 2020.
- Martin, Emily. "The Egg and the Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles". *The University of Chicago Press*, vol. 16, no. 3, pp. 485-501, 1991. *JSTOR*, [Jstor.org/stable/3174586](http://Jstor.org/stable/3174586).
- Meloncon, Lisa, and J. Blake Scott. *Methodologies for the Rhetoric of Health and Medicine*, edited by Lisa Meloncon, and J. Blake Scott, Routledge, 2017. ProQuest Ebook Central, [ebookcentral.proquest.com/lib/tamum-ebooks/detail.action?docID=4902077](http://ebookcentral.proquest.com/lib/tamum-ebooks/detail.action?docID=4902077).
- Miles, Casey. "Butch Rhetoric: Queer Masculinity in Rhetoric & Composition." *Kairos: Rhetoric, Technology, Pedagogy*, (20.1). [hairos.technorhetoric.net/20.1/disputatio/miles](http://hairos.technorhetoric.net/20.1/disputatio/miles).
- Padawer, Ruth. "The Humiliating Practice of Sex-Testing Female Athletes." *The New York Times Magazine*, 28 June 2016. [www.nytimes.com/2016/07/03/magazine/the-humiliating-practice-of-sex-testing-female-athletes.html](http://www.nytimes.com/2016/07/03/magazine/the-humiliating-practice-of-sex-testing-female-athletes.html).

- Pieper, Linsey Parks. “‘Wolves in Skirts?’: Sex Testing in Cold War Woman’s Sports.” *Defending the American Way of Life: Sports, Culture, and the Cold War*, edited by Toby C. Rider and Kevin B. Witherspoon, University of Arkansas Press, Fayetteville, 2018, pp. 85-98. *JSTOR*, [jstor.org/stable/j.ctv65sxt.10](https://www.jstor.org/stable/j.ctv65sxt.10).
- Schultz, Jaime. “Reading the Catsuit.” *Journal of Sport & Social Issues*, vol. 29, no. 3, August 2005, pp. 338-357. DOI: 10.1177/0193723505276230.
- “Title IX and the Rise of Female Athletics in America.” *Women’s Sports Foundation*, 2 September 2016. <https://www.womenssportsfoundation.org/education/title-ix-and-the-rise-of-female-athletes-in-america/>.
- Verry, Peter. “Why Serena Williams’s GQ Cover is Causing Controversy on Twitter.” *Footwear News*, 13 November 2018. [footwearnews.com/2018/focus/athletic-outdoor/serena-williams-gq-cover-off-white-1202706275/](https://www.footwearnews.com/2018/focus/athletic-outdoor/serena-williams-gq-cover-off-white-1202706275/).
- Wamsley, Laurel. “Simone Biles Becomes the Most Decorated Gymnast in World Championship History.” *NPR Sports*, 13 October 2019. [www.npr.org/2019/10/13/769896721/simone-biles-becomes-the-most-decorated-gymnast-in-world-championship-history](https://www.npr.org/2019/10/13/769896721/simone-biles-becomes-the-most-decorated-gymnast-in-world-championship-history).
- Worthman, Carol M. “Hormones, Sex, and Gender.” *Annual Review of Anthropology*, vol. 24, no.1, 1995, pp. 593-616. DOI: 10.1146/annurev.an.24.100195.003113.
- Young, Stephanie L. “Running Like A Man, Sitting Like a Girl: Visual Enthymeme and the Case of Caster Semenya.” *Women’s Studies in Communication*, vol. 38, no. 3, 2015, pp. 331-350. DOI: 10.1080/07491409.2015.1046623.