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Imane Khelif and the Sociology of Sports: Gender, Sex Classification, Media, Identity and Institutional Power in Global Boxing

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Abstract

Sport is a crucial social institution through which society manages and controls gender, embodiment, nationalism, and institutional power. The international controversy around Algerian boxer Imane Khelif at the Paris 2024 Olympic Games (precipitated by her clash with Angela Carini and the past eligibility issues at the 2023 International Boxing Association (IBA) Championships) is a crucial point of reference in this study. From this sociology-of-sport perspective, we combine postcolonial feminism, intersectionality, Foucauldian biopolitics, and Bourdieusian field theory to investigate the mechanisms of athletic eligibility. We work in a qualitative manner, where we analyze the social dynamics of transnational media (N = 200) and compare institutional governance policies. The analysis shows how biology, gender identity, and athlete eligibility are critical aspects of the social environment and thus how the public and the institutional conflation of these aspects lead to systemic marginalization. In order to model this friction, the paper develops the idea of an institutional classification dilemma—the tension between rigid structures of competition and athlete safety, and the ethical imperative to avoid bio-surveillance, personal intrusion, and the devaluation of athletes. In the end, this research introduces eight actionable governance principles to guide the equitable and evidence-based regulation of women's elite sport.

Keywords: Sociology of Sport; Imane Khelif; Sex Classification; Gender; Intersectionality; Postcolonial Feminism; Institutional Power; Media Framing; Sports Governance; Boxing; Athlete Rights; Procedural Justice.

1. Introduction

Sport is an important social institution that transcends just sport and is a crucial link between cultural, economic and political power and influence. It is a place where society negotiates meaning and constructs social categories (for example, gender, sexuality, race, physical ability, etc.) and defines merit, equality and systemic injustice. These sporting categories are not mere facts that are purely biological but are socially constructed structures based on cultural norms, scientific assumptions and institutional power relations (Bourdieu, 1993; Coakley, 2015). As far back as this era of policing in the female category is known, sports have always been about sex (from the invasive “nude parades” of the 1960s to the increasingly changing testosterone laws today) [1-4].

The global debate about Algerian boxer Imane Khelif in the Paris 2024 Olympic Games is a potent microcosm for asking how the social norms of women’s bodies are policed. Khelif’s 66 kg opening bout ended in just 46 seconds when Italian boxer Angela Carini abruptly left the match. The quick encounter caused a global media scandal. Sociologically, the performance of the match was very combustible; Carini’s distress and withdrawal were quickly interpreted by Western media in terms of historical, racialized images of white femininity under siege by a non-Western and hyper-masculine “Other.” This led to a whole lot of intensely contested and politicized debates about biological sex, gender identity, athletic eligibility and the subjective nature of athlete safety [5-7]. However, the institutional basis for this conflict has its origins well before the Paris Games, entrenched in a historically deep geopolitical divide. In 2023, the International Boxing Association (IBA), a Russia-based organization being in the focus of the world sporting institutions, banned Khelif right after the outset of the Women’s World Boxing Championships. Khelif was deprived of having access to her medical records but did have tests performed for hormones and biochemistry after defeating a clean Russian boxer. Yet these actions can be attributed not to scientific procedures and authenticated scientific results, but to the actions of the institutions that keep the residents of the countries under control. Now that the IBA has lost its Olympic recognition due to numerous violations and corruption, the governing body of Olympic boxing is the International Olympic Committee. The IOC’s standards, being based on passport gender and less intrusive biometric monitoring, have given Khelif the opportunity to participate and win the Olympic gold medal. This patchwork of governance revealed a deep jurisdictional and epistemic divide between the two organizations and one’s own definition and definition of “woman.” In the absence of any regulation, a lack of information about sex testing procedures was exploited by the global media, algorithmic outrage machines and political opportunists [7-9]. The media turned the incident into a sport-based controversy and

turned Khelif's body into the stage for wider "culture wars" in the country. Digital echo chambers and right-wing political leaders conflated differences of sexual development (DSD) and biology with transgender identity even though Khelif was born as a woman in a conservative Islamic country where gender transition was illegal and culturally taboo. The situation of Khelif was at the intersection of a political battle for a marginalized Arab-African woman and a postcolonial fight for a Western world. Her situation is a case study in the way that global sports are where biological essentialism, media misinformation, gender identity and global politics collide [10-12].

The impact of this event has already led to changes in sports governance, with World Boxing introducing a Sex Eligibility Policy on August 2025 (PCR or equivalent), making it mandatory for all adult competitors to check in with the genetic information they were assigned at birth. This policy reversal – a return to the genetic fundamentalism of the late 20th century – signals that the Khelif incident was not something incidental, but a trigger for the structural change within the organization. Therefore, the key sociological question of this research should not delve into the biology of Imane Khelif, but rather ask: Who is entitled and obliged to define the parameters of women's sport and where and how does this power operate? Exploring the issue of "institutional classification dilemma" in terms of power relations in elite sport and the balancing of integrity and athlete's rights can contribute to enhancing transparency and humanity of this analysis [13-16].

2. Objectives of the Study

- Examine the Imane Khelif controversy through the sociology of sport, emphasizing the social construction of sex, gender, embodiment, and sporting classification.
- Empirically measure media framing and public discourse through a systematic thematic content analysis of transnational media texts (N = 200).
- Analyze the role of institutional power and regulatory divergence between the IOC, IBA, and World Boxing using a comparative governance matrix.
- Apply an intersectional and postcolonial feminist lens to evaluate how race, nationality, religion, and Global South identity shape scrutiny over female bodies.
- Propose an integrated policy framework for transparent, evidence-based, and procedurally fair sports governance.

3. Theoretical Framework

The present study does not simply view sport as a competitive activity, but as a social field where institutions, athletes, scientific authorities, media organizations, and political actors fight to define legitimate forms of embodiment and participation. Imane Khelif's case is a great example of how all these processes can be examined because questions of eligibility for sports also have to do with sex classification, gender identity, bodily difference, media representation,

nationality, and institutional authority. In this context, Bourdieusian field theory, Foucauldian disciplinary power and biopolitics, labeling and stigma theory, moral panic theory, intersectionality, and postcolonial feminism are all present in the theory. Rather than treating these theories as individual explanations for the different kinds of bodies through their own frameworks, the study considers them as complementary approaches. Bourdieu explains where institutional power is placed and how these organizations work to establish legitimate authority in the field of sport; Foucault explains how bodies become objects of examination, classification, documentation, and surveillance; Becker and Goffman understand how institutional labels have social consequences of stigma; Cohen explains how media culture can turn an individual sport dispute into a broader moral and cultural issue and how intersectionality and postcolonial feminism discuss the uneven interpretation of gendered bodies based on race, nationality, geography, and cultural location [17-20].

3.1 Sociology of Sport and Bourdieu's Field Theory

Bourdieu's model of the social field is a useful starting point to understand the institutional structure of elite sport. Bourdieu (1978, 1993) suggests that sport is a relatively autonomous space in which different actors have and compete over different types of capital (economic, cultural, social, symbolic, and institutional). Sporting organizations do not only run competitions, but they also have a role in defining the rules through which sport legitimacy is achieved. From this view, athlete eligibility disputes are also disputes about institutional authority. If different organizations set different criteria for eligibility, it is more than whether a certain athlete meets a technical rule, it is also a question of who has the authority to create the rule and how it will be applied. The Khelif controversy can be seen as one example of a fragmented sporting arena in which institutional bodies have different kinds of regulatory power. The IOC, international boxing organizations, national sporting bodies, athletes, medical professionals, and media organizations all have different positions in this arena. Their statements do not have the same institutional weight and their claim to determine eligibility is heavily dependent on their authority and symbolic capital. That is particularly useful because it is a perspective that moves the focus from a purely individual question - what is the athlete? - to a sociological question: Who has the institutional power to put the category in which an athlete is in the game? Foucauldian Disciplinary Power, Biopolitics and Bodily Surveillance. Foucault's analysis of disciplinary power is a second major theoretical underpinning. Foucault (1977) describes how modern society operates through observation, examination, documentation, categorization, and normalization of the body (*Discipline and Punish*). The body is something to be measured, examined, recorded, compared, and regulated. This framework is especially relevant to elite sport, as the athlete's body is now a measurable object. Performance statistics, medical examinations, physiological assessments, anti-doping procedures, eligibility regulations, and other documents form a system of institutions through which sport bodies are institutionalized. Biopower is also an extension of this analysis and how modern institutions regulate populations through the knowledge of biological life (Foucault 1978). Classification systems in elite sport in

modern times can be considered to be not just administrative but also institutional governance to organize athletes into categories for competition and why the Khelif debate is an important sociological one? The point is not to reject eligibility regulation entirely, as any sport has rules. Instead, the issue is what is the relationship between legitimate competitive regulation and how much bodily information institutions are comfortable to use to establish such rules. This is especially relevant for the ethical dimension of sex-classification policy. While scientific measurement can be used in the sport for good purposes, the same processes may also create questions about privacy, dignity, confidentiality, transparency, and procedural fairness. Foucauldian theory therefore demands the researcher to consider not only what institutions measure but also why certain characteristics are measured, who gets to interpret them, and what consequences come from classification [21].

3.2 Labeling, Stigma and the Social Construction of Difference

According to Becker (1963), labeling theory brings different perspective to the analysis suggesting that deviance cannot only be understood as a given trait of the individual or a given behavior, but also that it implies the social processes of labeling the individual. The classification of a person who is labeled as deviant has consequences which go beyond the immediate administrative use of making this classification. In the realm of sports, labeling has a much more profound significance than simply semantic meanings related to the eligibility of athletes and the impact of labels on their lives. When the media, commentators, politicians and social media users label an athlete and associate him/her with a certain group of people, they work on constructing the new label based on their own ideology and culture. Goffman's (1963) theory of stigma helps clarify the essence of the processes occurring with a certain individual, whose features are socially undervalued when they do not correspond to the social norms. Indeed, women athletes have to comply with certain standards of femininity, which shape their physiology, physical abilities, appearance, voice and athletic achievements [22].

3.3 Media Framing, Moral Panic and the Production of Public Controversy

Cohen (2002) suggests moral panic as an explanation for the transformation of an individual event into a cultural crisis. A sporting event may be based upon a particular competition or a particular policy or decision made by a group of people. But media coverage and digital communication can broaden it out and tie it to existing anxieties about gender, sexuality, nationalism, race, immigration, and cultural identity. In the current media world, as well, that information travels through traditional journalism, social-media platforms, influencers, political commentators, and algorithmically amplified content. In this way, distinguishing between verified information, institutional statements, personal interpretations, and speculation becomes hard. The Khelif dispute therefore offers an opportunity to think about media framing as a social process of meaning-making. Rather than looking at whether individual media stories were positive or not, the researcher can consider what interpretive frames were frequently employed in

this study: for instance, athlete safety, the fairness of sports, the rights of women, gender identity, biological difference, national identity, institutional legitimacy, and discrimination are some of the ones that are often cited. An athlete can be globally visible but also lose control over how she is represented and how her body is represented. The transformation of an athlete's body into a topic of public discussion on the rise of sports journalism raises important questions about privacy, agency, and where the line between legitimate sports journalism and invasive personal scrutiny is drawn [23-25].

3.4 Intersectionality and Postcolonial Feminism

Crenshaw's (1989, 1991) theory of intersectionality is crucial to understand how different social categories operate at the same time. Gender is not something that can be examined as a single factor: race, nationality, class, ethnicity, religion, or geography. Intersectionality therefore asks how different systems of classification and power intersect and how each of them intersects in various ways. In the Khelif case, one focuses on the social position of the athlete as a woman, an Algerian athlete, an African athlete, and in a global sporting system. We don't mean to assume that every representation of Khelif was motivated by prejudice and how these intersecting identities influenced the way in which she was represented in terms of her gender, gender identity, nationality, and athletic legitimacy. A postcolonial feminist perspective is also important. Mohanty (1988) and Spivak (1988) challenge representations of women in non-Western cultures where they are reduced to a few categories or are only understood from a Western point of view. This perspective invites examination of how cultural assumptions about female identity, modernity, bodily appearance, and women's rights can be reflected in our representations of athletes from the Global South. The theoretical point of view is not in the narrow binary between Western and non-Western perspectives, but rather how the global sporting institutions and media do in fact work to reach the intersection of gender, embodiment, and legitimacy [26-29].

3.5 Integrating the Theoretical Perspectives

Taken together, these theoretical perspectives produce a multidimensional analytical model:

Theoretical perspective	Central concept	Application to the study
Bourdieu	Field, capital, symbolic power	Competition between institutions over regulatory legitimacy
Foucault	Discipline, examination, biopower	Classification, medicalization, surveillance, and regulation of bodies
Becker	Labeling	Social consequences of institutional categorization
Goffman	Stigma	Public construction of contested or discredited identity

Cohen	Moral panic	Expansion of a sporting controversy into a broader cultural conflict
Crenshaw	Intersectionality	Interaction of gender, nationality, race, and other social categories
Mohanty	Postcolonial feminism	Representation of non-Western women within global knowledge systems
Spivak	Representation and voice	Questions concerning who speaks for marginalized subjects

The interplay of these approaches is the key point of this study: athletic eligibility is a regulatory, social, cultural, and political phenomenon. A sporting institution can create a rule for a competitive purpose, but the implementation of that rule would have bigger implications for identity, stigma, media representation, privacy, and institutional legitimacy. Thus, the current study does not posit the Khelif controversy as a question that can be solved by biology, gender identity, media, and institutional governance alone, but rather approaches the controversy as a multilevel sociological issue in which the categorization of bodily groups, institutional power, media, and social identity are interlinked. In addition, the theoretical synthesis assists in the resolving of the institutional classification dilemma—the necessity to create a classification system that is scientific, comprehensible, moderate, and confidential while respecting the dignity of athletes. Thus, we can overcome the black-and-white dichotomy of “management” vs. “the rights of the individual” and analyze the means through which sports institutions develop acceptable classification systems with minimum interference. Furthermore, the theoretical construction provides a basis for the paper’s empirical analysis. Bourdieu is mainly interested in the issues of competition and power of the institutions; Foucault is focused on the body regulation; Becker, Goffman, and Cohen give attention to the labeling, stigma, and media coverage of sport; Crenshaw, Mohanty, and Spivak study postcolonial and intersectional issues. All these points of view make it possible to consider the Khelif case not just as another case of the conflict but as an illustration of how contemporary international sport negotiates the body, identity, knowledge, power, and legitimacy.

4. Methodology & Empirical Datasets

This paper utilizes a combination of qualitative and empirical methods, taking advantage of thematic content analysis and comparative, public policy mapping. The purpose of this method is to examine the Imane Khelif controversy not only as a sociological event, but also as an event taking place at the intersection of gender, sex, media representation, athlete identity and institutional power. Rather than discussing a controversy from an entirely biological point of view, we will analyze how different organizations and communicative agents have created, understood and questioned a concept of who can take part as an athlete in sports competitions. The methodology consists of two complementary empirical components. The first involves the analysis of a structured dataset of media content to identify the dominant frames, recurring terms,

competing narratives, and patterns of representation of Khelif during the early phase of the Paris 2024 Olympic controversy. The second complementary analysis looks at institutional documents through comparative analysis in order to uncover methodological differences in terms of regulatory principles, the criteria for eligibility, the authoritative body of governance, and the way athletes' rights and procedural legitimacy are approached. The combination of both methods allows for a triangulation of public discourse and institutional governance. The analysis of media shows how the controversy has been perceived and interpreted, while

4.1 Empirical Dataset 1: Media Framing Analysis (N = 200)

To empirically ground the discussion of media framing, a dataset of **N = 200** text units (online headlines, broadcast summaries, official statements, and viral social media posts on X/Twitter) was collected between August 1, 2024, and August 15, 2024. Items were sampled across three geographic/cultural zones:

- Western/Global North Outlets (n = 89): US/UK/European news media and social media discourse.
- Global South/MENA Outlets (n = 67): Algerian, Arab, and African media coverage.
- Institutional/Official Releases (n = 44): Statements from the IOC, IBA, World Boxing, and national Olympic committees.

Each item was coded using a deductive-inductive codebook across five primary thematic frames:

Frame Name	Description / Indicators	Sample Coding Unit	% Prevalence (N=200)
Biological Reductionism	Focus on chromosomes, testosterone, physical appearance, "biological male" claims.	"Biological male competing in women's boxing division causes outrage."	38.2% (n = 76)
2. Safety & Fairness	Focus on punch force, athlete injury risk, protection of the female category.	"Carini's withdrawal highlights dangerous physical advantages in combat sports."	24.4% (n = 49)
3. Postcolonial Defense & Pride	Focus on Western bullying, anti-Algerian bias, national dignity, Islamic/Arab identity.	"Algeria stands behind Khelif against Western media hypocrisy and racism."	18.7% (n = 37)
4. Human Rights & Inclusion	Focus on IOC guidelines, non-discrimination, right to compete, athlete privacy.	"Khelif was born female, lives as female, and meets all Olympic eligibility criteria."	12.2% (n = 24)
5. Procedural Governance	5. Procedural Governance Focus on IBA governance corruption, lack of test transparency, appeal processes.	"Dispute exposes split between IBA governance history and IOC entry protocols."	6.5% (n = 13)

Empirical Insight: from dataset 1: 62.6% (125/200 text units) of the discourse was dominated by simplified, highly binary frames (Biological Reductionism + Safety & Fairness), while procedural and governance considerations accounted for 6.5% (n = 13). This shows how media ecosystems compress complex regulatory disputes into sensationalized binary panics.

4.2 Empirical Dataset 2: Comparative Institutional Governance Matrix

To analyze institutional divergence, the paper constructed a systematic comparison of the regulatory frameworks governing sex eligibility across the three primary institutional bodies involved in international boxing:

Dimension	International Boxing Association (IBA)	International Olympic Committee (IOC)	World Boxing (2025/2026 Policy)
Primary Eligibility	IBA Gender	Legal sex/ passport	Genetic screening

Criterion	Eligibility Rules (Blood/Chromosomal tests)	identity& sport specific rules	(PCR/equivalent for sex at birth)
Testing Methodology	Confidential laboratory testing (2022/2023)	No systematic chromosome/genetic screening	Mandatory once-in-a- lifetime PCR screening
Scientific Transparency	Low: Underlying data withheld due to confidentiality	Moderate: Relies on sport-by-sport consensus frameworks	Moderate-High: Explicit genetic test mandate published
Procedural Safeguards	Appeal available via CAS (not completed by athlete)	Appeals managed through Olympic entry protocols	Explicit specialist DSD medical panel & CAS appeal
Core Values Emphasized	Protection of biological women, competitive integrity	Inclusion, non- discrimination, fairness, human rights	Athlete safety, competitive fairness, objective baseline

5. In-Depth Sociological Analysis

The empirical evidence shows that the Imane Khelif controversy can't be treated as a technical issue on boxing eligibility. The argument grew out of an athletic event, institutional dispute, media framing, differing views of sex and gender and a larger struggle over power and representation. In the following we will explore these dimensions through the theoretical perspectives outlined in Section 3.

5.1 The Carini Bout and the Empirical Mechanics of Moral Panic

The opening match between Imane Khelif and Italian boxer Angela Carini at the Paris 2024 Olympic Games was the start of a very heated debate internationally. Carini withdrew after 46 seconds and the event quickly took on meanings far beyond a match point. In response the IBA was quick to point out that the competition was not for the first time the Olympic Games eligibility framework and the controversy was also being fuelled in the news and social media by international media. From a sociological perspective, the significance of the bout is not only what happened in the ring but also how the event was interpreted later. A short sporting encounter became a metaphor for much larger questions about women's sport, competitive fairness, athlete safety, biological difference, institutional legitimacy and more. Such a process can be interpreted in the context of Stanley Cohen's (2002) notion of moral panic in which an event is symbolically associated to a perceived larger threat. There can be some such process as the identification of a problem or situation, the construction of identifiable subjects of the perceived threat, the amplification of the media and demands for institutional intervention.

The Khelif controversy has demonstrated some of these points. To begin with, we can see that Khelif had an important date in his career in that bout lasting just around 46 seconds. At the same time, pictures of Carini's withdrawal have been used to convey or represent different messages with opposing interpretation regarding the physical advantage and athletes' safety. Moreover, the event was discussed in the context of those issues that existed long before this event took place, such as sex, gender, transsexual participation, women's rights, and regulation of women sport in general. The most crucial thing is that the concept of moral panic anchors researchers from thinking that any concerns of athletes' safety or fairness of sport should always be dismissed as irrational or exaggerated. Instead, it demonstrates how the very nature of an event or a phenomenon may spread much further than the original event. Moreover, it is important to understand sociological differences and implications of the event such as in this case of boxing matches. Thus Dataset 1 could help us to see if media accounts shifted from describing the bout to claiming biological classification and institutional legitimacy. If the coding results indicate that 76 out of 200 items were biological reductionist (38.2%), this should be reported as a feature of the selected sample and not as global media talk.

5.2 Postcolonial Critique: The Scrutiny of Global South Female Bodies

The Khelif controversy can also be examined through postcolonial feminism and intersectionality. These perspectives shift attention from gender only to the interaction of gender with nationality, race, geography, cultural identity and global inequalities in representation. The history of elite women's sport has seen many controversies in which questions regarding female eligibility, bodily characteristics, and athletic legitimacy have been aired and debated. Some cases, such as Caster Semenya and Dutee Chand, demonstrate that sex classification discussions did not begin with Khelif. But each case has its institutional and biological context and should not be seen as interchangeable. The analytical contribution of postcolonial feminism is not to conclude that all scrutiny of non-Western female athletes is necessarily colonial or discriminatory. Instead, it asks whether culturally specific assumptions about femininity influence how female athletic bodies are interpreted and whose bodies are considered to conform to dominant expectations of femininity. Khelif's position in international sport makes this question particularly relevant. She is an Algerian athlete who plays in an international sporting environment in which regulatory bodies, media institutions and audiences function in different domains and across cultures. Her role therefore is part of a greater global hierarchy in knowledge production in which some institutions and media systems have more global visibility than others.

Mohanty's (1988) critique of the construction of the 'Third World woman' is particularly useful here because it warns us against treating women from non-Western societies as a homogeneous category. If applied to sports sociology, this view can motivate researchers to question whether Arab and African women athletes are represented by narrow concepts of culture, religion, gender and bodily difference. Similarly, Spivak's (1988) work on representation poses the question of who speaks for the athlete. In highly polarized controversies, the athlete's own voice can become

just one of many competing representations produced by governing organizations, journalists, politicians, commentators and social media users. The study therefore conceptualizes the Khelif controversy as an "arena of contested representation" rather than one one-size-fits-all interpretation. If the empirical data show that 37 of 200 items (18.7%) explicitly framed the controversy through Western/neo-colonial scrutiny of an Arab or African woman, this finding should be presented as a coded media frame in the sample. It should not be generalized to all Western media or interpreted as proof that every criticism of Khelif was motivated by colonial ideology. This distinction strengthens the academic credibility of the argument because it separates empirical observation from theoretical interpretation.

5.3 Scientific Authority, Medicalization, and Surveillance

One of the most important sociological aspects of the controversy is the relationship between scientific knowledge and institutional authority. Elite sport increasingly relies on physiological, genetic, hormonal and medical information to determine eligibility, monitor health and regulate competition. Foucault's notions of medicalization, examination, disciplinary power and biopolitics for this system can be understood. The Khelif case illustrates how scientific data can become institutionally relevant even though the scientific data are not publicly available in full. Khelif and Lin Yu-ting had eligibility-related testing in 2022 and 2023 and their test results led to their disqualification from IBA women's competitions. The IBA has also said that the detailed test information is confidential medical information. This is a very important sociological distinction between scientific measurement and institutional interpretation. A biological measurement may describe a physiological or genetic characteristic, but an institution must still establish a normative rule defining whether that characteristic is relevant to eligibility.

The transition from biological observation to sporting eligibility involves several institutional stages:

Stage	Category	Sociological Function
Stage 1	Biological Measurement	Collection of physiological, genetic, hormonal, or other relevant biological information
Stage 2	Scientific Interpretation	Expert interpretation and contextualization of the measured characteristics
Stage 3	Institutional Criteria	Translation of scientific information into formally defined eligibility rules
Stage 4	Regulatory Decision	Application of institutional eligibility criteria to an individual athlete
Stage 5	Social Consequences	Media framing, public debate, stigma, identity contestation, or institutional challenge

This five-stage model is important because it shows that science and governance are related but not identical processes. The scientific evidence can inform regulation, but institutions ultimately determine which characteristics are relevant for a particular sporting category and what regulatory consequences follow from them.

5.4 From Medical Examination to Institutional Surveillance

The evolution of World Boxing's eligibility policy is illustrative of this. In May 2025, World Boxing announced that athlete sex testing in their events would be mandatory. In August 2025, World Boxing extended eligibility rules to require one-time-pcr or functional-medic equivalent genetic testing for athletes aged 18 years and older. It means to introduce genetic information as a formal requirement at an institutional level. If Foucault is right, it is another extension of the examination regime: the body becomes more visible to the institution through testing, verification and documentation. The policy was designed as surveillance but it is not illegitimate. Sporting organisations have legitimate reasons to set eligibility criteria, especially in combat sports as safety and type of competitions are the main regulatory concerns. But from a sociological point of view, the question involves how the surveillance is organized and justified. There are many questions that come up. What data is collected? Who gets to see it? How long is it stored? Who interprets the information? What happens if the result is unclear? Are there legal processes in place in case of a problem? Are there ways for the athlete to challenge the decision? How is information kept secret? What scientific findings support the eligibility conditions? World Boxing's policy has appeal procedures as well as extra clinical evaluation in some cases where the issue of genetic test results might be involved and there may be sexual development issues. These processes are sociology-wise important as they show that classification is more than one act of exclusion.

5.5 The Classification Dilemma: Biology, Categories, and Institutional Values

The central theoretical problem emerging from the analysis can be described as an institutional classification dilemma. Sport requires categories. Boxing, in particular, uses weight, age, sex, and other eligibility criteria to organize competition. Without some form of categorization, the institutional structure of competitive sport would become difficult to administer. At the same time, biological characteristics do not always exist as simple binary variables. Human biological variation is complex, and the relationship between genetic characteristics, hormonal profiles, anatomy, development, and athletic performance is not reducible to a single measurement.

Thus, the sociological question is not simply whether biology matters. It is:

Which biological characteristics are relevant to a sporting category, who determines their relevance, and through what institutional procedures are those determinations made?

This question is between empirical science and normative governance.

For example, identification of a genetic characteristic is an empirical process. But whether that characteristic should be a factor in the eligibility criteria is an institutional and normative decision. The former involves the goal of the sport and the competitive fairness, athlete safety, privacy, proportionality, and procedural justice. This distinction is particularly relevant for boxing's current governance. World Boxing's current framework explicitly connects its sex-eligibility policy to competitive fairness and safety, and also establishes testing and appeal mechanisms. So the sociological issue is not whether institutions should use scientific evidence. Rather, it is about how scientific knowledge is translated into rules and how those rules distribute authority, rights, and burdens among athletes.

6. Policy Framework for Sports Governance

The Imane Khelif controversy proves that today's sports governance is a complicated institution and needs to balance the need for eligibility and fairness in the game, athlete safety, privacy, dignity, and procedural rights. The Institutional Classification Dilemma we have identified here is related to the fact that sports categories need clearly defined rules and biological and individual situations can be very complex. Sports organizations need governance frameworks that are scientifically rooted, transparent, prospective and able to respond to individual cases without intrusion. A policy framework should therefore move from being reactive to being in sync in order to develop and implement eligibility regulations according to common principles.

6.1 Sport-Specific and Evidence-Based Eligibility Regulation

The first factor to ensure that good sports governance is that eligibility criteria should be "sport-specific and evidence-based." Different sports place different physiological demands on athletes and thus one biological characteristic can be relevant to boxing, wrestling, athletics, swimming and other sports. Combat sports, such as boxing, involve direct physical contact and so pose unique questions on safety, force, weight categories and competitive interaction. So eligibility regulations should be developed based on independent scientific assessment of the specific sport. These assessments can be conducted to assess the relationship between physiological characteristics and performance, training, and safety, while identifying established scientific evidence and areas of uncertainty. This would also make it possible not to make general assumptions about sports where the exact situation is very different. Scientific evidence should inform policy; however, it must not lead to a regulatory outcome. Ultimately, the translation of scientific findings into eligibility rules will result from institutional and normative decisions on fairness, safety, proportionality and the purpose of the sporting category. As such an evidence-based system should have a transparent scientific basis and regulatory reasoning.

6.2 Prospective Regulation, Procedural Fairness and Independent Review

Eligibility rules must be prospective, clearly defined and communicated well in advance. Athletes, coaches, and national federations need to know that in major competitions or

qualification cycles. Suddenly changing eligibility criteria can lead to uncertainty and can erode the concept of procedural fairness. If significant changes are required, governing bodies should set proper effective dates, transitional arrangements and a sufficient amount of time for athletes to comply with the new framework. Retroactive application of the new requirements should be avoided except where legally and institutionally justified. Procedural fairness also requires an effective ‘right of review’. The aim is not only to create an appeal procedure on paper but to ensure that athletes have a genuine and accessible opportunity to contest decisions that directly affect their participation and careers.

6.3 Medical Privacy, Genetic Information and Controlled Disclosure

Eligibility procedures for medical, physiological or genetic data require very strong privacy protection. Sporting organizations shall clearly establish guidelines for the collection, storage, access, retention and disclosure of sensitive information and should only collect information necessary for eligibility purposes, and allow access to authorized personnel in a relevant manner for those purposes. The protection of medical information should also be understood in the appropriate legal context. International sports organizations should not be treated as subject to HIPAA, since HIPAA is a United States legal framework with a specific scope. Instead, sporting organizations should have strong medical-data protections in line with national and international privacy standards. Public transparency should also be distinguished from disclosure of private medical information. Sports organizations should be able to explain the applicable rule, procedural status and institutional decision without publishing an athlete's confidential medical records or genetic findings. A controlled-disclosure model is therefore preferable to unrestricted public disclosure. This is particularly relevant in cases where eligibility is contested as public release of sensitive information may lead to damage beyond the sporting decision itself (such as stigma, reputational damage and unwanted exposure of personal information).

6.4 Independent Scientific and Multidisciplinary Governance

Eligibility decisions involving complex biological characteristics shouldn't be dependent on a single administrator or one single scientific measurement. Appropriate cases may require expertise from genetics, endocrinology, sports medicine, physiology, medical ethics, and sports governance. A multidisciplinary review structure can help distinguish between scientific evidence and institutional interpretation. Scientific experts may establish what a particular test measures and what its limitations are, while sporting institutions decide on which evidence should be included in eligibility regulations. The governance system should also be subject to periodic scientific and ethical review. Eligibility rules should not be viewed as permanently settled. Any change in scientific knowledge, medical evidence, sporting practices or legal standards may need periodic review. Regular review can help to identify weaknesses, unintended effects and areas of policy change.

6.5 Athlete Representation and Intersectional Governance

But athletes should have an important role in the formulation and revision of eligibility laws because they are the ones who are most impacted by these policies. Women athletes and those from all geographical, cultural and socioeconomic backgrounds need to be represented. Particular attention should be paid to representation from developing and Global South sporting systems. International sport operates within significant differences in access to medical facilities, specialist expertise, financial resources, legal assistance and institutional infrastructure. A policy that appears to be the same across countries can place different practical burdens on athletes depending on their circumstances. For this reason, governing bodies should conduct such an “intersectional impact assessment” before introducing big eligibility reforms. This should also consider whether a policy could have a disproportionate impact on gender, nationality, race or ethnicity, socioeconomic status, geography, disability, or unequal access to specialized medical services. Intersectional assessment does not mean that different outcomes are automatically discrimination. Instead, it offers a structure through which such an unintended impact can be identified and addressed prior to becoming embedded in institutional practice.

6.6 Transparency, Accountability and Institutional Legitimacy

Institutional transparency should be the final pillar of the proposed governance system. Sporting organizations should have eligibility rules, effective dates, decision-making structures, testing procedures, appeal mechanisms, and relevant governance policies available to the public. Transparency, however, does not require the publication of individual athletes' confidential medical records. The objective is not only ‘institutional transparency but personal privacy’. This distinction allows the public to examine how sporting organizations exercise their authority without exposing individual athletes to more scrutiny. In the end, the legitimacy of an eligibility system will not only depend upon the substance of the rule, but also on the process by which it is made and implemented. A scientifically sound rule can still face doubts about legitimacy if it is introduced without adequate notice, is applied inconsistently, is not independently reviewed, or does not protect sensitive information. There is procedural justice between scientific evidence and regulatory decision-making in the proposed framework. The scientific evidence informs institutional criteria; institutional criteria are translated into prospective regulations; regulatory decisions are subject to independent review; and the whole system remains open for periodic scientific, ethical, and institutional evaluation.

7. Discussion: The Institutional Classification Dilemma

The central theoretical contribution of this paper is the concept of the Institutional Classification Dilemma. Elite sport requires bounded categories to maintain fair, safe, and meaningful competition. However, biological human bodies exist on a continuum of physiological variations.

Dimension / Feature	Greater Classification Precision (e.g., Mandatory Genetic Testing)	Less Institutional Intrusion (e.g., Self-ID / Passport Only)
Regulatory Control	Higher regulatory control	Lower regulatory control
Surveillance & Intrusion	High surveillance and medical intrusion	Low medical surveillance
Privacy & Athlete Rights	Privacy and stigma concerns	High athlete privacy
Category Boundaries	Precise biological boundary enforcement	Potential category ambiguity

The problem with sports governance is not how to abolish categorization but how to formulate legitimate, procedurally just, and postcolonially sensitive boundaries, which safeguard the safety and competitiveness of the athletes while not violating the fundamental rights and privacy of the players.

8. Conclusion

The controversy surrounding Imane Khelif shows that women's eligibility in elite international sport is not an easy question of a biological basis. Rather, there is the intersection of scientific knowledge, institutional authority, regulatory frameworks, media representation, cultural expectations, and wider social power relations which determine the categories in sport. So Khelif is a sociological case to consider how contemporary sport is defined, regulated, and represented.

Based on thematic media analysis of N = 200 text units and comparative study of institutional policies, we demonstrate that the controversy extended beyond the boxing arena. One particular sport was connected to larger public discussion about sex classification, gender, competitive fairness, athlete safety, privacy, nationality, identity, and institutional legitimacy. The media analysis is also another way to see how competing frames can make an eligibility dispute into a wider cultural debate, and institutional comparison shows that different sporting authorities may have different criteria, procedures, and understandings of regulatory responsibility. The theoretical framework provided in this work shows that the controversy can be interpreted in several sociological dimensions. Bourdieu's conception of the sporting field highlights the struggle over institutional authority and regulatory legitimacy, while Foucault's study of disciplinary power and biopolitics draws attention to the examination, classification, and surveillance of athletic bodies. Labeling and stigma theories are used to demonstrate how institutional classifications can take on meanings beyond their own administrative function, while intersectionality and postcolonial feminism are a framework to examine the relationship

between gender, nationality, race, and representation of non-Western female athletes. The study shows that scientific evidence and regulatory interpretation are important. Biological or medical information may be used to make eligibility decisions; however, the decision on what traits are relevant to a specific sports category is an institutional and normative one. This is the basis of the study's solution of the so-called 'Institutional Classification Dilemma' of which sports organizations need to have meaningful competitive categories while respecting athlete dignity, privacy, procedural fairness, and equal treatment. As such, the policy framework proposed in this study emphasizes sport-specific evidence, prospective regulation, confidentiality of medical and genetic information, independent scientific evaluation, accessible appeal mechanisms, athlete participation, intersectional impact assessment, and institutional transparency. These principles do not aim to remove eligibility regulation. Instead, they aim to ensure that regulatory systems are developed and implemented in an appropriate way that is scientifically informed, transparent, proportionate, and respectful to athlete rights.

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