The Universe is Binary

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Introduction

Hydrogen and helium make up 99% of all observable matter in the universe.[1] The rest is just a deviation from the norm—anomalies we shouldn't account for. Sounds absurd? I guess Mendeleev was woke.[2] When we try to understand the world around us and our very own bodies, we are not simply observing reality *as it is*: we are constructing and utilizing models, frameworks, and paradigms through which we perceive, analyze, predict, and control our environment and the living beings among us. In order to justify our beliefs, we draw from empirical data, and hypothesize causation in relation to established insights—all within a plural and intertwined historical project of knowledge building and perception shaping. If we fail to admit that some perspectives are inadequate for understanding and describing certain phenomena within a given context, we're not helping ourselves in this project; we are simply reinforcing the narratives that we've grown to accept throughout history—potentially causing real harm along the way.

When it comes to the body, certain qualities that appear to live on a singular dimension receive more nuanced and spectral recognition than complex and multilayered topics. Take human age, for example—we think of "age as a series of discrete categories, rather than as a continuous distribution. Categories such as infant, baby, child, … adult, middle-age, old age,

1. Center for Astrophysics |Harvard & Smithsonian: Elemental Abundances, https://www.cfa.harvard.edu/research/topic/elemental-abundances, accessed June 18, 2025.

2. See Periodic table of elements, https://www.mendeleev.com, accessed June 18, 2025.

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elderly would seem to be the most common, but we can easily think of further subdivisions" (Giles and Reid 2005, 393). We may perceive of others as young or old in reference to our own age or think in terms of minor, adult, or senior in legal settings, though we typically seem to understand that transitioning from one category into another is merely a crossing of an arbitrary mark. The underlying dimensional or gradual nature of human age is implied, yet we seem to value decimal divisions and lifecycle categories.

Thus, we can conceive of age through a variety of perspectives and representational models, depending on the circumstances. Interestingly, some properties like body weight, and stature are similarly not construed through a binary lens, in favor of prototypical or normative groupings. Whereas diversity of racialized, gendered, or (dis)abled bodies seems much harder to grasp as sophisticated aspects of human life. As multiplicity increases, our capacity to understand seems to shrink, and the urge to bifurcate the human population into a constrictive binary system emerges. Female or male, gay or straight, white or of color, abled or disabled; these designations are superficial perspectives of intricate and composite natural phenomena, but our intuition struggles to conceive of them as diverse and multifaceted.[3]

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3. It's important to note that gender, sexuality and ethnicity are additionally categorized in fine-grained detail; various labels for gender and sexual identities emerge in queer communities, and "race" is frequently typologized through a colonial lens or identified in detailed ethnic categories. However, binary perspectives are still dominant in contemporary Eurocentric and heteronormative discourse (See Butler 1990; Foucault 1978; Omi and Winant 2015; Shakespeare 2007), and therefore the prime subject of this investigation.

Epistemic Stage

Rather than building on objective *facts* and pursuing a solid depiction of *reality*, philosopher of science Ronald Giere (2006) argues that scientific observation is always perspectival, "always mediated by the nature of the instruments through which we interact with selected aspects of reality" (43). Giere argues that knowledge is constructed through a negotiation of scientific *models* composed of various methods, instruments, and theoretical frameworks—incomplete and perspectival, but never detached from their contextual use. Scientific *truth* is not absolute, but a partial representation of the world—always situational; any model fits a given purpose. He does not question reality in and of itself, but he concedes that science can never convey a singular objective truth superseding all context.

As with Giere, Paul Feyerabend (1988) rejects scientific realism, but he radically moves beyond a structural and pragmatic approach. He advocates for a theoretical anarchism, stating that it's "more humanitarian and more likely to encourage progress than its law-and-order alternatives. . . . The only principle that does not inhibit progress is: anything goes" (5). Feyerabend insists that scientific theories are incommensurable; there is no unifying methodological framework adequately suited to all scientific inquiry. Adherence to a formalized scientific body stifles disagreement and impedes progress: "Proliferation of theories is beneficial for science, while uniformity impairs its critical power" (5).

The history of science is not merely a collection of observations and conclusions; Feyerabend too argues there are no "bare facts"—science is always chaotic, marked by interpretations, and "essentially ideational": "Science will always be as complex, chaotic, full of mistakes, and entertaining as the ideas it contains, and these ideas in turn will be as complex, chaotic, full of mistakes, and entertaining as are the minds of those who invented them" (11). It is political and not without colonial and imperialist power, ruling over

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knowledge that outlived generations—preserved through oral tradition and *unorthodox* methodology. Western science claims to be *exceptional*; when it asserts to be more than "one science among many . . . it ceases to be an instrument of research and turns into a (political) pressure group" (Feyerabend 1988, 3). Science is embedded and formalized in institutions and intertwined with power: "A little brainwashing will go a long way in making the history of science duller, simpler, more uniform, more 'objective' and more easily accessible to treatment by strict and unchangeable rules" (11).

In *Black Feminist Thought*, Patricia Hill Collins (1990) raises the concept of standpoint epistemology. Collins argues that Black women's lived experience, shaped by racial and patriarchal oppression—often intersected with class, sexuality, and ability status—substantiates a distinctive frame of reference. This particular standpoint is equipped to produce representational perspectives and knowledges otherwise dismissed and excluded from academic discourse. She builds on Michel Foucault (1980) and his notion of *subjugated knowledge*, which is twofold: first, "blocs of historical knowledge which were present but disguised within the body of functionalist and systematising theory," as well as "a whole set of knowledges that have been disqualified as inadequate to their task or insufficiently elaborated" (82). Subjugated knowledge covers that which is established but deserving of critique, and that which is underexposed, deserving of recognition and to be brought forward.

For Collins (1990), "knowledge claims are evaluated by a community of experts whose members represent the standpoints of the groups from which they originate," and "each community of experts must maintain its credibility as defined by the larger group in which it is situated and from which it draws its basic, taken-for-granted knowledge" (203). She exposes two problems: both *new knowledge claims* and the methodologies of claiming knowledge are subject to evaluation and validation by an established scientific body that exists within a larger epistemology. Collins emphatically reiterates that

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Black women have historically been excluded from and "denigrated within white-male-controlled academic institutions" (217), and she stresses the importance of dialogue "as a dimension of an Afrocentric feminist epistemology" (214). She states that while Black communities can formulate claims that challenge a pre-established understanding of a white male community, "this community does not grant that Black women scholars have competing knowledge claims based in another knowledge validation process" (204); a paradigm that perpetuates prevailing perspectives by preventing criticism of what is disguised within the system and obstructing recognition of what is insufficiently brought to attention. A paradigm that ultimately reinforces the narratives deemed acceptable by a dominant majority and that resists inquiry and investigation from without. While Collins' reflections are foundational for a feminist epistemology of color, we can draw from her perspectives to widen this intersectional approach within feminism: "One significant dimension of Black feminist thought is its potential to reveal insights about the social relations of domination organized along other axes such as religion, ethnicity, sexual orientation, and age" (227)

* * *

To set the stage, through perspectival realism, Giere provides a pragmatic middle ground between scientific realism and relativism, breaking away from objectivism while still building on rigorous methodology. Feyerabend illustrates that reality resists methodological consistency. Alongside Collins, both scholars provide a critique of unified scientific bodies and epistemic frameworks. Perspectivism and its partial nature are central to all three authors, but Collins grounds theory in practice and locates human lived experience at the center of knowledge. Evidently, this isn't a call for epistemic chaos or an endeavor to abandon scientific rigor, but rather to remind ourselves that what counts as truth is always subjective and relational, political and situated,

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perpetuated through power and employed to wield it. The 1% is not just a statistical outlier; it is a site of conflict and subordination, a place where dominant models fracture, and where new knowledge can arise—*human knowledge*. This text proceeds from the conviction that all human life is equally valuable and deserving of dignity, that the full realization of human rights for all is a moral imperative, and that unimpeded discourse and epistemic negotiation are fundamental means to achieve this aim.

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Models

When we are confronted with the question of the sexed body—what it means to be female or male, and how we incorporate this marked difference in the world—several models of perception are commonly utilized to advocate for simple, uniform, and easily accessible narratives. Implicitly, every story of the sexed body ultimately is a descriptive model. Insisting on operating outside or above any such framework is an illusion, an appeal to tradition, nature, or divinity.

In 2021, the interpretation of "sex" in the UK under the Equality Act 2010 c. 15 (EA2010) in relation to the Gender Representation on Public Boards (Scotland) Act 2018 was challenged in the Scottish courts by the activist group For Women Scotland (FWS). The legislation in question aimed to ensure equal sex representation among non-executive members of public boards. FWS contested the provision that expressly included transgender women as eligible under the statute. The case ultimately reached the Supreme Court, and in 2025, *For Women Scotland Ltd v. The Scottish Ministers* [2025] UKSC 16 ruled in favor of the appellant, setting a troubling precedent with far-reaching consequences for transgender and gender non-conforming people (Equality and Human Rights Commission 2025; O'Thomson 2025). The court argued that in the context of the EA2010, the protected categories of sex must be interpreted as "biological" and not applied to the sex obtained through gender recognition certificates. While the

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term appears over 200 times in the 87-page judgment, we are left to speculate what it precisely entails. In paragraph [171], the court states that:

> Although the word "biological" does not appear [in the EA2010], the ordinary meaning of those plain and unambiguous words corresponds with the biological characteristics that make an individual a man or a woman. These are assumed to be self-explanatory and to require no further explanation.

The word in question is introduced by the court; biology is hereby tasked to carry the burden of *plain and unambiguous* differentiation of bodies. Biologists oftentimes disagree on the criteria of human sex, but in that disagreement lies potentiality (Fausto-Sterling 2000, 77). The Supreme Court made an appeal to tradition[4]: that "biological" is *self-explanatory*, explained by what is already known, thus certainly not in need of new interpretations or revisions. The court is not accepting new knowledge claims. "Biological sex" is no longer participating in the ever-evolving process of epistemic negotiation, stifling all disagreement.

While the Supreme Court judgment deliberately evaded any and all attempts to circumscribe sex, many political leaders and public figures have overtly postulated constrictive definitions, explanations, and meanings of the words "sex" and "woman" in particular. In this text I will outline three popular essentialist perspectives illustrated by examples old and new. I will demonstrate how they claim to reflect the *truth* and why they are limited in conveying human diversity and fostering sustainable living conditions for diverse populations. By differentiating between "mythical," "biological," and "cultural" models, we can learn to better understand these expressions of thought while expanding our insight and capacity to appreciate ambivalence.

4. An Appeal to tradition, as defined by Damer (2008), is "Attempting to persuade others of a point of view by appealing to their feelings of reverence or respect for a tradition instead of to evidence, especially when a more important principle or issue is at stake" (108).

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This dissection is hardly a proposition to arrange and structure thought patterns, but rather an initiative that hopes to encourage greater awareness of the threats posed by this rhetoric.

These examples are by no means the most gruesome or provocative iterations, nor are they selected from notable figures—some expressions are well known and may have become *stale*, while others may be hardly relevant in public discourse—they are selected solely for the purpose of illustration and to address certain patterns of thought. I acknowledge that the context in which these statements were situated cannot be wholly represented in this text—that anachronistic discrepancies may arise—and I fully recognize that this may lead to misrepresentation. However, I believe that the fragments translate well through time and are employed to serve as real-world examples, representing prevailing narratives and popular takes within contemporary discourse. The purpose here is not to engage with, vilify, or misrepresent the original authors and speakers. My critique is directed exclusively toward substantive matter, not personal character.

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Mythical Essence

The first model is the mythical sexed essence, the assertion that any person belongs to either of the two sexed categories, contingent on an immutable yet intangible reality. Manifested as an immaterial substance, symbolized by sex characteristics, possibly inconsistent or misleading, but incontestably *disclosed* by the fantasy of the karyotype. Beyond the observed traits that allow us to *know a woman when we see her*, the body encapsulates the capacity to reproduce. Or at least, the expectation that it *should* have or *could* have when it fails to do so. This model retains its strength in its flexibility and its power through its perceived signification of a reproductive teleology. It is the sexed body in *spirit*, impossible to neatly define without resorting to circular definitions, but its boundaries are strict. So strict that the merest glance at the nature of this spirit during the initial seconds of life mandates an entire lifetime within the boundaries that it imposes.

Fictitious Unity

In the podcast "Why Sex Matters in Life and Law," author Helen Joyce offers a textbook example—unifying various characteristics, vaguely revolving around,yet transcending procreation. While the factual essence of sex remains uncaptured, it is expressed through various mechanisms of the body. Above all, it is given signification—*it matters*:

> You can tell people's sex all the way through their bodies. It's not just our sex organs. There's a good name for people thinking it's just about our sex organs, which is bikini medicine.[5] Bikini medicine is the idea that humans are the same except for the

5. Bikini medicine is a critique of the problematic under-representation of women's health concerns outside reproductive health. "For many years, the medical community has viewed women's health with a bikini approach, focusing essentially on the breast and reproductive system. The rest of the woman was virtually ignored in considerations of women's health; the tacit assumption was that women and men reacted comparably to diseases and

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> bits that are covered by the bikini. Well, actually, your fingers are different. Your tendons are different. Everything's different between men and women, a little bit. In some ways, a lot, but in some ways, a little. Yeah, so basically, anything where the fact that we come in two sexes and that one of those sexes bears pretty much all the burden of reproduction. Anywhere that that matters, it matters that you acknowledge sex (Winn 2025, 1:20:31).
>
> —Helen Joyce

In the following example, political commentator Matt Walsh (2022) attempts to outline womanhood, building on a more comprehensive list of elements, ranging from scientific testing, general appearance or behavior, and childbearing capabilities; but most of all, sex is intuitively perceived, *preconceptually*:

> Women are adult human females. They have XX chromosomes. They can bear children and give birth. They're not necessarily nicer than men, but they sure are better looking. Even if you didn't know the science or use the exact right words, you could point a woman out pretty easily. By nature, they look and act differently from men (11).
>
> —Matt Walsh

Sex is presented as an abstract *conclusion* drawn from a cluster of properties that have historically gained significance; subjectively assessed and evaluated within a "heterosexual matrix" (Butler 1990) and the "modern/colonial

drugs" (Wenger 2004). The term was coined to challenge the systemic patriarchal biases and the unjust allocation of resources, it is not a formal proposal to disregard endocrinological, genetic, environmental, or psychosocial factors. "Major disease areas such as infectious disease, cardiovascular disease, and musculoskeletal disorders were underrepresented as topics in women's health publications" (Hallam et al. 2022). The specificity of these health concerns cannot be attributed to the dimorphic framework posited by the author in the example.

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gender system" (Lugones 2007, 189). Foucault (1978) summarized: "The notion of 'sex' made it possible to group together, in an artificial unity, anatomical elements, biological functions, conducts, sensations, and pleasures, and it enabled one to make use of this fictitious unity as a causal principle" (154). And by *causal*, he means that everything observed and brought into relation to this unity is treated as if it were the effect of an underlying *nature*. This nature is fictitious, in that it cannot be brought forward—it is historically constructed, fabricated through discourse. While initial recognition and categorization of sex typically occurs at the time of birth and on the basis of observed external genitalia (Ahmed et al. 2011, 14), it is speculated that the remaining markers of sex will reveal themselves coherently in later stages of sexual development (see Karkazis 2008). Perceived incongruence between those markers or a divergence of aesthetic conformity give rise to tension when they unsettle the notion of nature's *intended design*.

Alexina Barbin

The story of Herculine Barbin is one of the most famous accounts of intersex people. Born 1838 in France, she was initially assigned female at birth. Although she was consistently perceived as a girl before puberty, she experienced mockery and contempt for her appearance as a teenager. From her memoirs, "At that age, when all a woman's graces unfold, I had neither that free and easy bearing nor the well-rounded limbs that reveal youth in full bloom. . . . My features had a certain hardness that one could not help noticing. My upper lip and a part of my cheeks were covered by a light down that increased as the days passed. Understandably, this peculiarity often drew to me joking remarks that I tried to avoid by making frequent use of scissors in place of a razor" (Barbin [1978] 1980, 26).

Aged 22, following medical examinations, she was abruptly classified and legally reassigned male—strongly against her will. To contain a potential scandal and conceal the alleged *disgrace* of her existence, she was barred from

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seeing her partner Sara, and forced to resign from her job as a teacher in a girl's boarding school. She moved to Paris and adopted a male persona but she lived in desolation and poverty, only to die by suicide at age 29 (Barbin [1978] 1980). Near the end of her memoirs, she wrote, "I consider that every day given to me is the last of my life. And I do so quite naturally, without the slightest dread. To understand such indifference in someone who is twenty-nine, it would be necessary to have seen oneself condemned, like me, to the most bitter of all torments: perpetual isolation. The idea of death, which is generally so repulsive, is ineffably sweet to my aching soul" (Barbin [1978] 1980, 109).

Herculine, or Alexina—the name she used and identified with—saw herself as a woman, an "*exceptional* female, she did not perceive herself as necessarily beyond the boundaries of the female" (Holmes 2004, 6). Her extensive memoirs were first published by Tardieu (1872) and later edited and republished by Foucault (Barbin [1978] 1980). Her somber story has seen abundant coverage in the studies of sex and gender, emerging as an intriguing and controversial subject of discourse on sexual development and identity formation (Hakoda 2015; Holmes 2008, 82–94).[6]

Alexina's date of birth inspired Intersex Solidarity Day.[7] Well over 100 million people worldwide do not uniformly conform to the restrictive, yet vaguely specified classifications of sex (Blackless et al. 2000, 151). The failure to recognize physical diversity still echoes in present-day juridico-medical coercive practices and institutionalized policing of sexed bodies (Muschialli et al. 2024). Intersex and transgender rights advocates are united in efforts to counteract political and institutional regulation of healthcare practices restricting bodily autonomy. The USA has seen a dramatic rise of "laws that claim to protect minors' bodily integrity," yet this *protection* is disingenuous, "By permitting coercive procedures for intersex minors and barring affirming

6. See Butler (1990, 119–41) and their critique on Foucault's framing.
7. Also known as Intersex Day of Remembrance, November 8 (Carpenter 2011).

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care for trans minors while exempting cisgender minors from similar regulations, these bans reveal a deeper legislative agenda: enforcing sex and gender conformity" (Katri and Sudai 2025, 1524, 1531).

Real

Prior demonstrated attempts to distinguish *the sexes* are recitals of multiple characteristics. However, many proponents of restrictive frameworks resort to one-liners and self-referencing definitions. The following quotes illustrate expressions of incontrovertible certainty while providing little further substance:

> Biological sex is real. A gender recognition certificate is there to show that someone is now transgender, but that doesn't change their biology (Times News 2025, 0:18).
>
> —Kemi Badenoch

> Female is real, and it's sex, and femininity is unreal, and it's gender (Channel 4 News 2018, 33:36).
>
> —Germaine Greer

Some of these phrases have adopted language from *racial realism*. Racial realism is a frequently used rhetorical shield for *scientific racism*, "the pseudoscientific belief that the human species is divided into biologically distinct taxa called 'races,' and that empirical evidence exists to support or justify racial discrimination."[8] It asserts that the categories of race are ontologically *real* and that they should not be disregarded in the formation of our society—that race *matters*. Collins ([1990] 2000) explains that black communities "have been construed as inferior, and their inferiority has been attributed either to biological causes or cultural differences" (77). She further

8. See Wikipedia "Racial Realism", https://en.wikipedia.org/wiki/Racial_realism, accessed June 18, 2025. The definition included here is a representative summary of how the term is commonly understood in public discourse, rather than as a scholarly authority.

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concludes, "Scientific racism was designed to prove the inferiority of people of color" (300). In *Why Race Matters*, philosopher Michael Levin (1997) presents a 415-page-long polemic defending the unequivocal appreciation of the *natural differences of the races*, employing psychometric measures of intelligence, impulsivity, aggression, and behavioral control; while endorsing stereotypes and eugenics to justify his intrinsically white-supremacist beliefs. Author and "Director of Advocacy" at "Sex Matters," Helen Joyce, does not shy away from linguistic reminiscence of this rhetorical strategy:

> It's kind of obvious... 95% of it is just facts... sex realism means that you accept that sex is real (Liang 2025, para. 10).
>
> —Helen Joyce

Realism is a position or paradigm that may account for a variety of views depending on the context and domain. Legal scholar and civil rights lawyer Derrick Bell (1992) calls for an entirely different manifestation of racial realism, drawing from *legal* realism, a movement critical of legal *formalism*. The latter being a framework that upholds law as "logically self-evident, objective, *a priori* valid, and internally consistent" (375). It proclaims to be a system that universally leads to a "right—and therefore just—result" (364), but in reality, Bell argues, it legitimates and reinforces "existing power relations in the real world" (376). Bell challenges the principles of racial equality as a reformist movement: "I am convinced that there is something real out there in America for black people. It is not, however, the romantic love of integration" (378). Racial realism, in this sense, "requires us to acknowledge the permanence of our subordinate status. That acknowledgement enables us to avoid despair, and frees us to imagine and implement racial strategies that can bring fulfillment and even triumph" (373–4).

It is of utmost importance to note the different contexts in which the word *realism* is employed. Bell scrutinized a system that is the jurisprudential equivalent of scientific and moral realism—a theory that disavows its own

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privileged position of power in favor of abstraction and uniformity while disregarding all contextual relations. Bell's racial realism transcended the metaphysical debates about race, centering sociopolitical and economic struggle, "providing a bird's-eye view of situations that are distorted by race" (Bell 1992, 378). Levin, on the other hand, posited a metaphysical realist account—deploying scientific and moral realism in the service of a social hierarchy, a justification of systemic subordination.

Unless Joyce is alluding to another form of realism, we can only conclude that when she self-identifies as a sex realist (Lambert and Makarina 2025, para. 3), she aligns with metaphysical realism, postulating that the sex categories of human life are *real*, posses undeniably stable essential properties and relations, and are fundamental to arranging society and valid grounds for subordination. In the ambiguity of *realism* lies great potential for misunderstanding, and in the gap between these readings, Joyce may be seen to obfuscate a call to biological determinism as a merely pragmatic and political one. When she asserts that "sex *matters*, in life and law," she is making sociopolitical claims about the implications of categorization, however, in defining what it means to be a woman, her claims are of metaphysical nature.

In "Heterosexualism and the Colonial/Modern Gender System," María Lugones (2007) remarks that "race is no more mythical and fictional than gender—both are powerful fictions" (202). Works like Levin (1997) demonstrate how mythologization of the "natural kinds" can provoke morbid manifestations. When we conceptualize and naturalize differences, those apparant differences emerge through, and become central to societal relations—subject to moral judgments and justifications for hierarchical arrangements, subordination, and ultimately, violence. At the same time, it is important to stress that this investigation of *realism* does not invite us to consider race and sex as parallel structures that are metaphorically interchangeable. Lugones argues that race and gender are both constructs manifested through colonial expansion, and she emphasizes that "the imposition of this gender

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system was as constitutive of the coloniality of power as the coloniality of power was constitutive of it" (Lugones 2007, 202) Every body is sexed *and* racialized; these are intersecting qualities, not *either/or* aspects.

Language

In these expressions, ontological *realness* and its importance is emphatically reiterated, but it is never explicitly demarcated. US Supreme Court Justice Ketanji Brown Jackson was mockingly asked to define the word "woman" at her confirmation hearing, to which she laconically replied, "I can't. . . . Not in this context, I'm not a Biologist" (Ward 2022). Following her reluctance to comply, Huffpost later confronted several GOP Senators with the same question; the answers were *compelling*:

> [A woman is] biologically a woman (Delaney and Bendery 2022, para. 18)..
>
> —Sen. Lindsey Graham
>
> An adult female human (para. 26).
>
> —Sen. Ted Cruz

General-purpose dictionaries perform the elementary task to "provide a description of the 'general' vocabulary that is as accurate as possible. . . . what the raw materials show about which words writers and speakers use, how they use them, and what they use them to mean. This is a descriptive task" (Finegan 2020, 50). Senator Cruz' *Meriam-webster mic drop* does not provide a valuable contribution to solving the problem at hand. Nevertheless, the phrase "adult human female"—a dictionary classic—has become a popular trans-antagonistic utterance.[9] Ironically, the wording shifts the bur-

9. The phrase is commonly attributed to activist Kellie-Jay Keen-Minshull (aka Posie Parker), who commissioned a billboard featuring the three-word dictionary definition in 2018 (BBC 2018; Elliards 2023).

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den of defining womanhood onto the word "female," which in turn is defined as "belonging or relating to women or girls" (Cambridge University Press, n.d.[a]).[10]

This introduces recursion in our definition; the answer *begs the question*.[11] However absurd, circular thought is meaningful; it allows us to build valuable concepts out of abstract imagery. It is fundamental to symbolize and structure ideas and thinking; instrumental to the conception of language. Language is foundational to all thinking, as Ferdinand de Saussure (1959) writes, "Without language, thought is a vague, uncharted nebula. There are no pre-existing ideas, and nothing is distinct before the appearance of language" (112). But for concepts to become meaningful they must be grounded within a context; lest they endlessly recur into meaninglessness—not unlike a helicopter with a malfunctioning tail rotor.

When I define A as containing B, and B as contained within A, I'm not making much sense, unless A and B reside in a wider context in which their relations are significant, and they become meaningful to their environment. In any other case, if you argue that A does not contain B, there is nothing but arbitrariness allowing me to claim *truth*. Jacques Derrida ([1966] 2016) famously said, "Il n'y a pas de hors-texte", or "There is nothing outside of the text" (172). While various translations and interpretations exist—ironically—it is commonly understood to convey that meaning is always mediated through symbolic systems. We cannot step outside language to discern reality *as it is*, prior to any signification (nor can we ever fully understand Derrida). There is no conception of reality that can be conceived of beyond language, beyond relational contexts and the differences that establish meaning. Derrida introduces the neologism "différance", an idiosyncratic

10. Several other definitions of "woman" are provided in the same dictionary, including "an adult who lives and identifies as female though they may have been said to have a different sex at birth" (Cambridge University Press, n.d.[b]).

11. According to Damer (2008), "Begging-the-question fallacies are flawed because they assume, in a variety of ways, the truth of the conclusion in their premises" (63).

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word play on the French verb "différer", which means *to differ* as well as *to defer*. The distinction only exists in writing, as différance and difference sound exactly the same in French, but it emphasizes Derrida's critique of logocentrism and the historic privileging of speech over writing, omnipresent in western philosophy. It is through difference that words and concepts become meaningful—through a giant network or chain of what they are not—and through deferral, meaning is never fully present: not absolute, and always in becoming—constantly deferred.

The tail rotor is not fixed, but it does provide a point of reference that prevents the helicopter from uncontrollably yawing. Within its contextual environment the helicopter is a valuable construction that combines various forces working in tandem to create an equilibrium, but the stability is reliant on the spatio-temporal consistency of matter, affected by air density, wind speed, ground effect, weather conditions, and so on. Derrida (1982) later elaborates, "Every sign, linguistic or nonlinguistic, spoken or written, (in the usual sense of this opposition) as a small or large unity, can be cited, put between quotation marks; thereby it can break with every given context, and engender infinitely new contexts in an absolutely nonsaturable fashion. This does not suppose that the mark is valid outside its context, but on the contrary that there are only contexts without any center of absolute anchoring" (320).

It is one thing to define female as what pertains to the body of a *typical* woman, and woman as the social category of someone with a *typically* female body, but if we disregard that woman is a historically constructed concept, and female is a historically constructed product, conceived through the perspective of that construct, we are discarding the word *typical*, and pretending to anchor the unstable concepts onto an absolute and solid ground that simply does not exist: the myth. (Wo)man and fe(male) are in an unstable floating equilibrium and forever in motion. And motion, in turn, is always in relation to something else—perspectival. As ever useful these floating con-

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cepts may be (if they even were) one needs more than circular reasoning to solidify or to anchor them.

If we cannot delineate the outlines of biology preceding *all* context, how then can we justify enforcement beyond *any* context? In what context, and for *what purpose* do we define sex? Was it *necessary* to reassign Alexina Barbin to protect other women from her *intrusion* and force her into desperation? Were the girls' boarding schools in which Alexina tutored threatened by her presence? Who is on the receiving end of protection—what exactly is worth protecting, and from whom or what, and why? Categories of human life—or *fictitious unities*—arguably do not possess embodied personhood; they're in constant motion as they reflect the living entities they comprise, but they are not composed through affect, nor recognized as subjectivities capable of thought and emotion. Can we somehow justify human suffering to preserve dignity of a *category*?

Trans phenomenology

As illustrated by most of the examples, people are generally guided by intuition when they perceive other bodies as sexed—through aesthetics, body shape, mannerisms, voice timbre, skin texture, tactile and olfactory sensations, sartorial expression, adornments, and so on (Kessler and MacKenna 1978). This impression is presented prior to consciousness, immediate and pre-reflective, and already saturated with meaning. It is a perception, always oriented toward the other, in relation to others and situational, but nonetheless, an *embodied* experience—quite often accompanied by some form of sexual affect. In *Phenomenology of Perception*, Maurice Merleau-Ponty (1962) attests "Erotic perception is not a cogitatio which aims at a cogitatum; through one body it aims at another body, and takes place in the world, not in a consciousness. A sight has a sexual significance for me, not when I consider, even confusedly, its possible relationship to the sexual organs or to pleasurable states, but when it exists for my body, for that power always available for

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bringing together into an erotic situation the stimuli applied, and adapting sexual conduct to it" (157). Merleau-Ponty points at bodily intentionality; in seeing the other, we are not simply reflecting an awareness, we are affected by an embodied impression of the other, immediately charged with sexed significance. And when this impression is disrupted by ambiguity, it may invoke a certain tension (Kessler and MacKenna 1978, 3), either an appealing and agreeable experience, or a discomforting anxiety—depending on the subject's disposition toward the *fictitiousness* of sex.

Similarly, our very own bodies are sexed in relation to others, and through this embodied experience, knowledge is produced. Regardless of how we come to relate to our own bodies, this knowledge is shaped by affect and reflected through desire, admiration, aversion, and so on. Throughout my own journey, I witnessed the most grievous emotions of repulsion and detachment toward my body, and alienation in relation to others; something that I can best describe as an unrelenting desire to exuviate from my own skin and bones and an irreconcilable grief for a precluded girlhood. But, I also learned the felicitous joy in exploring and liberating my desires and expression. With the help of the material changes engendered by medicine, I learned to accept, embrace and admire my own body. These emotions were not only intense and guiding, they were ultimately decisive in the choices I made to alter my sex characteristics. My bodily sex is *shaped* by my emotions—through the choices I make—in a way that is remarkably persuasive, not unlike the experience of sexual affect.

Setting aside the ontology of sexuality, orientation is perceived as self-ascribed and experientially *real*. It guides your sexual and relational choices, without *feeling* like a choice. In no way is my sense of sexed embodiment perceived as any less *real* and authoritative than my sexuality. Sex, gender, and sexuality—however they relate to each other—appear as embodied facticity; in challenging its persuasive power, transformative possibilities emerge, but it continues to be the fabric from which desire is eventually fashioned. In

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the same way that orientation is always oriented toward the other, so too is my body reflected in the other—eliciting a sense of recognition, affirmation, rejection, denial, or indifference. That is my personal recollection, and it is likely different from others who experience similar tensions, while it may be entirely incomprehensible or even repulsive to those who don't. Ultimately, it provides crucial knowledge about *my* embodiment and how I relate to others—producing indispensable insight otherwise not accessible from the outside. For many trans people, the body is "*self-explanatory and to require no further explanation*."[12]

This knowledge is too often disregarded through segregated healthcare pathways and paternalistic institutions policies, especially when young people present with this ostensibly *troublesome* outing (Gill-Peterson 2018). While this knowledge may not withstand scrutiny from scientific rigor, it produces grounded insights that are most valuable to those involved, and it comes to life through the perspectives that are most apt in shaping the context and substance of one's own path. As Gill-Peterson points out, "pediatric trans medicine would be radically transformed by actually *asking trans children what they want* and truly basing care on that knowledge" (198). In addition, these perspectives shed light on our understanding of sex, sexuality, and gender at large, in ways we can all learn from. As Merleau-Ponty (1962) conceives, "Let us try to see how a thing or a being begins to exist for us through desire or love and we shall thereby come to understand better how things and beings can exist in general" (154). Trans lives provide an epistemic opportunity for valuable contributions to an ontological genealogy of sex and sexuality (Hird 2002, 581)—a precious and necessary presence, rather than deserving to be subjugated to an inquisitive imposition of preconceived *truths* and moral convictions.

When trans bodies are painstakingly imagined as produced by insti-

12. For Women Scotland [2025] UKSC 16 at [171]; italics added.

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tutions, established by medicine (Tosh 2016, 47–76)[13], or constituted by discourse and social relations, this knowledge remains unacknowledged—supplanted by the study and taxonomy of trans objects (Meyerowitz 2004, 169–70).[14] Certain languages and digestible preconceived narratives are imposed and reproduced discursively (Liamputtong et al. 2020; Marrow 2023), but these are ultimately rooted in cisnormative historical readings of the *true transsexual*.[15] This is further complicated by a preoccupation with subversive gender theories, amplifying narratives that do not necessarily serve the interests of those involved (Hines 2006, 50–53). Trans identification is rarely preceded by a desire to transgress identity; transgression is more often than not a *post hoc conviction*—one that might be comforting or troubling—but all too often not an objective in itself.

The tension felt between sex and sexuality extends further into the ways trans bodies are hypersexualized, and at the same time deprived of sexuality (Anzani et al. 2021; Anzani et al. 2024; Hansbury and Saketopoulou 2022); the dichotomy contrived between sex and sexuality is an artificial barrier employed to desensitize and purify trans identity, as its unfortunate past is permeated with institutional and media-driven sexualization—misrepresenting it as vulgar, dishonorable and obscene (Tosh 2016, 51–5). However, the body is intimately intertwined with and animated by sexual drive: *sexual pleasure leading sexed desire*. Through sexuality, so many trans bodies become legible, and through bodily exploration and newfound admiration, new sexualities emerge (see Hansbury and Saketopoulou 2022; Katz-Wise et al. 2024).

13. See Billings and Urban (1982) for an apposite example of a medically construed trans narrative.

14. See Benjamin (1966, 36) and his Sex Orientation Scale (S.O.S.) based on Kinsey et al. (1948, 638). See also Blanchard (1989) for his typology of transgender women, drawing on Bentler (1976) and Freund et al. (1982). For a brief history of ICD and DSM diagnostic classifications, see Crocq (2021).

15. Simplified narratives like the "true transsexual" (Benjamin 1966, 27) and "souls 'trapped' in the wrong bodies" (22) still prevalent in both colloquial and medical discourse today can be traced back to Benjamin (1966).

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Relegating bodily desire and pleasure to the realm of fetish and perversion—rendering them irrelevant to everyday life—is a moral judgment, and an unfair one at that. People make drastic life choices based on sexual desire when choosing partners, while entire social communities are shaped around orientation; large-scale hegemonic systems—comprising prescribed behavior, expectations, values and morals—are mapped onto certain sexualities.

* * *

The aforementioned descriptive and reductive efforts all suggest a contained intrinsic ontological substance, governing outside and above all context. Reaffirmations of a natural authoritative power of biology—refuting temporality and multiplicity—are repeatedly made with presumptuous entitlement to veracity, yet legitimizing arguments that surpass direct self-reference are seldom provided. As though repetition upholds truth in itself. However, the essence remains unuttered, gesturing toward *something out there* but failing to unveil *what* is out there. Millions of people all over the world report a strongly perceived sense of sexed embodiment that presents itself prior to conscious reflection, challenging or disputing assigned sex. We should wonder why an interrogation shaped by a historically contingent account of *nature's intentions* is granted justification to dismiss and override personal insight when it concerns the subject's private and intimate experience.

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Biological Essence

We could forego mythical thinking and spiritual conceptions, look at the body, and perceive its true nature only through that which is manifest. In this model, there is no sexed essence that transcends material reality. A single trait is appointed, not as a signifier but as the very essence of the sexed body. The belief that there is no underlying substance other than the presence or absence of the penis, the Y chromosome, ovaries, or the uterus... but pick one, and stick to that definition, or you will resort to the mythical referential model—*pointing toward* a sex and not the sex in itself.

Genitalia

In *Fixing Sex*, Katrina Karkazis (2008) remarks, "The process of sex identification at birth is one in which genitals are granted the power of synecdochic representation…" (95). A synecdoche is known as "a figure of speech by which a part is put for the whole (such as fifty sail for fifty ships)" (Merriam-Webster, n.d.). "*A penis walks into a bar*". That is blunt, but it highlights the extent to which our expression and gender enactment repeatedly signify and *expose* our genitals; both in execution—trough behavior—as through identification—one must abide by this assignment. The abruptness of this phrase, contrasted to the pervasiveness of genital signage, accentuates how we're silently accustomed to this signification. Yet many would testify that sex is not *signified* by genitalia, it just *is* genitalia. In this prime example, former UK PM Tony Blair clarified his stance:

> I'm definitely of the school that says, biologically, a woman is with a vagina and a man is with a penis. I think we can say that quite clearly (quoted in Johnson 2024, para. 6).
>
> —Tony Blair PM

This coincidentally leads us to the conclusion that he supports sex reas-

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signment through surgical procedures. Despite this unexpected but welcome admission, his definition still does not reflect all lived realities, as he fails to recognize the variety of genitalia observed at birth, while he only expects to find one of two options (Reis 2009).

Other political figures have expressed similarly oversimplified positions. In order to disqualify sex reassignment efforts, attempts are made to pin down sexual categorization to what was initially observed at birth—an act performed by medical personnel, recorded in administrative records. MP Jonathan Gullis makes it perfectly *clear* in a debate on the legislative definition of sex in the infamous EA2010:

> [S]ex is not assigned at birth. You are born a man or you are born a woman. Those are indisputable facts. You have XY chromosomes or XX chromosomes. Again, that is not up for debate or discussion (House of Commons 2023b, col. 28WH).
>
> —Jonathan Gullis, MP

It is notable that the act of sex assignment, when contested, causes so much friction that it's forcibly rendered implicit—an unmediated truth of nature; sex is not *assigned*, it just *is*. According to Nikki Sullivan et al. (2015), John Money introduced the terms gender and sex assignment in 1955, "It was through his early work with intersex patients that Money came to consider the term 'sex' inadequate to describe the lived embodiment of those whose anatomies are either 'discordant' or do not appear to match the sex roles associated with masculinity or femininity, and/or the sense of self a particular individual has" (21). In Rep. Madison Cawthorn's reaction to Justice Ketanji Brown Jackson's hearing, we find a similar message, though in a different tone. Directed to House Speaker Nancy Pelosi:

> Take notes, Madame Speaker, I'm about to define what a woman is for you. XX chromosome, no tallywacker (quoted

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in Quay 2022, para. 3).

—Rep. Madison Cawthorn

In both fragments, we find that sex assignment and *presumed* "sex chromosomes" are conflated—as if they are one and the same—yet sex chromosome analysis is rarely involved in sex assignment (Ahmed et al. 2011, 14). The Venn diagram of people assigned female at birth and those with XX chromosomes is not a perfect circle; there is a risk of both under- and over-inclusion (see Reis 2009). Different pathways of sexual development have been observed (Richardson 2015, 125); genitalia are merely a semblance of sex chromosomes—they remain distinct aspects. The fact that we frequently rely on one to signify the other precisely illustrates this, while at the same time highlighting the possibility of divergence. What exactly is it about "sex chromosomes" that makes genitals so honored a symbol? A prediction of the very same genitals, made retroactively? A postdiction?

Odd Chromosomes

There is no Platonic ideal of sex determination or differentiation that governs all life; according to Sarah Richardson (2015) in *Sex Itself*, "Sexual dimorphism, as well as mating, parenting, and sex-gender systems, varies so profoundly across species that sex ('maleness' and 'femaleness') carries minimal explanatory value as a high-level kind" (195). The tradition of sex assignment predates our comprehension of the workings of sex determination by several millennia (see Joyce 2008). The relatively recent invention of karyotyping and other cytogenetic[16] techniques are scientific revelations, part of an ever-evolving process that is subject to re-evaluation and continuous reconditioning by culture and politics (Richardson 2022, 1).

16. "Cytogenetics is a branch of biology focused on the study of chromosomes and their inheritance, especially as applied to medical genetics. Chromosomes are microscopic structures containing DNA that reside within the nucleus of a cell" (National Human Genome Research Institute, n.d.[b]).

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"The X and Y chromosomes, first called the 'odd chromosomes,' were discovered in 1890 and 1905" (Richardson 2015, 23). The modifier "sex" was first coined by Edmund Wilson in 1906, but it wasn't widely accepted until the 1920s (23). At the time, it was generally believed that sex was determined by environmental and metabolic factors; harsh living conditions were said to lead to a higher prevalence of male births, while female births would excel in periods of abundance (27).

With the sudden discovery of the X and Y chromosomes, researchers where first reluctant to adopt a purely inheritance-based conception of sex determination. Sex was generally understood to be "a complicated, spectrum-like, and highly variable phenomenon. They were fascinated by the diversity of forms of sexual dimorphism and intersexuality in nature" (24). In 1910, zoologist Thomas Montgomery argued that "Maleness and femaleness would appear to be two modes of one process, the process of germ cell production, not radically different conditions. In other words, there is no valid reason to interpret sex as an immutable unit character resident in or presided over by particular chromosomes" (Montgomery 1910, 14).

In postwar America, during the economic boom, cytogenetic research entered a rapid phase of development, "Fundamental breakthroughs in the structure and biochemistry of DNA arrived in rapid succession" (Richardson 2015, 76). The prospect of reverse-engineering our very own blueprints sparked the imagination and opened possibilities for "not just rare hereditary and congenital disorders, but also cancer, infectious diseases, and basic processes such as aging" (76). The field shifted prior perspectives of biological understanding into the genetic realm. Richardson (2015) observes, "The sex chromosomes became one of the most flamboyant symbols of the new, seemingly determinate relationship between chromosome karyotype and human phenotype" (77). Murray Barr discovered the "Barr body"[17], a revelation that

17. Barr body "or X-chromatin is an inactive X chromosome. In species with XY sex-

facilitated more accessible methods to study sex chromosomes, "The notion that every cell has a sex shifted the terms of human sex research and ushered sex difference into the molecular genetic age" (77).

A witch-hunt for the genetic essence of sex ensued—was it the Y chromosome that conveyed maleness, and its absence that engendered femaleness? Or was it the *chimerical* nature of X inactivation mosaicism[18] that conjured the female *mystique* and *hysteria*. By isolating the sex chromosomes from autosomes[19] and allocating maleness and femaleness in a reductive field of X and Y chromosomes—often expressed in terms of "motherly," "sociable," vs. "macho," "dominant"—a qualitative value was attributed to sex chromosomes, and a genetic economy of sex emerged (Rehmann-Sutter et al. 2023; Richardson 2015). Researchers demonstrated a primary interest in corroborating prevailing gendered stereotypes, exemplified by the research on so-called "supermales" in X**Y**Y men (Richardson 2015, 82), "eunuchoids" in X**X**Y men (106), and "sex-reversed males" in XO women (106). Once their existence was revealed and accentuated, the XX and XY pairs, and all of their variations were begging to be imbued with meaning—from conception to fertilization. It seems that *gender* was seeking theoretical and empirical

determination (including humans), females typically have two X chromosomes, and one is rendered inactive in a process called lyonization" (Wikipedia, n.d.).

18. "Because of X inactivation, most women are natural mosaics. Although all their cells have the same two X chromosomes—one from each parent—the mother's copy works in some cells, whereas the father's works in the others. The two kinds of cells often function differently, especially if one of the X chromosomes carries a defective gene" (Migeon 2014).

19. "An autosome is one of the numbered chromosomes, as opposed to the sex chromosomes. Humans [typically] have 22 pairs of autosomes and one pair of sex chromosomes (XX or XY). Autosomes are numbered roughly in relation to their sizes" (National Human Genome Research Institute, n.d.[a]). One could argue that this arrangement of chromosomes is already indicative of a deterministic bias, "is there justification to continue this central distinction between sex chromosomes and the others? Or should the X and Y simply be classified by size and structure, like autosomes? Why are the X and Y called the 'sex chromosomes,' after all?" (Richardson 2015, 41). It's notable that the christening of sex chromosomes predates any molecular understanding of genetic material—how could researchers have expected to find genes related to sex differentiation on autosomes in this dichotomous framework?

grounding in this relatively new branch of biology.

The 1980s saw the rise of molecular genetics and genomics[20], introducing gene sequences and regulatory networks. Of particular interest was the identification of genes involved in sex development. This ultimately led to the key breakthrough in 1990, with the discovery of the sex-determining region on the Y chromosome (SRY). It "appeared to confirm a longstanding model of genetic sex determination—that of a single 'master gene'" (Richardson 2015, 125), "a 'master switch' that induces male sex development" (Rehmann-Sutter et al. 2023, 155). The discovery also reinforced the notion of female sex development as the default pathway, onto which—*at the flip of the switch*—testes were *superimposed* in the course of male differentiation. Later findings indicate this perspective was overly reductive, asRehmann-Sutter et al. (2023) point out, "The genetics of sex determination developed in a traditionally male-dominated scientific world. From there it has clearly inherited an androcentric bias . . . female sex development was under-researched and is today much less well understood than male sex development" (158).

The SRY gene is now recognized as just one of several crucial sex-determining factors that participate in the processes of gonadogenesis (Richardson 2015, 125). Numerous other genes responsible for gonadal development have been described, "some of them non-Y chromosomal genes (such as NR0B1, SOX9, DMRT1 and WNT4), which could override SRY to cause sex reversal" (Rehmann-Sutter et al. 2023, 158). This underscores that no single gene acts in isolation. Instead, as Richardson (2015) notes, "Mammals require cascades of gene product in proper dosages and at precise times to produce functioning male and female gonads, and researchers recognize a variety of healthy sexual phenotypes and sex determination pathways in humans" (125). Contemporary perspectives appreciate the complexity of

20. "Genomics is the study of the complete set of genes (the genome) of organisms, of the way genes work, interact with each other and with the environment. Genomics incorporates elements of genetics, but is concerned with the characterization of all genes of an organism, rather than individual genes" (World Health Organization, n.d.).

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each of these stages of development—interwoven with intricate environmental factors that, as a whole, may or may not consistently result in what we intuitively perceive as male and female differentiation.

What this brief genealogy of the gendered genome might reveal is a historical account of genetic determinism and gender essentialism. "Sexes are not like species, and the differences between them cannot be genomically conceptualized in the same way as species differences. There is not a 'female genome' and a 'male genome'" (21). Ironically, Montgomery's account, written over a century ago, showed a more nuanced comprehension of the interaction of genetic and environmental factors than dominant perspectives that governed the majority of the 20th century. Assumptions about sex difference were grounded in chromosomal, genetic, and hormonal models that upheld a binary and normative view of biological sex, leaving little room for natural variations. "An androcentric scientific environment focused on the study of male sex development and perpetuated the notion of a default and passive route to female sex development" (Rehmann-Sutter et al. 2023, 158). Advances such as "mRNA editing and alternative splicing indicating the contextual nature of genetic causality, a general uneasiness with genetic determinism and genetic essentialism arose in philosophy of biology" (158).

In *Sex Contextualism*, Sarah Richardson (2022) argues for a model that "attends to the materiality of sex without a prior commitment to a particular ontology of sex" (14). Unfortunately, the damage done during the second half of the 20th century has been detrimental in shaping popular consensus. A dichotomous and reductive understanding of the genome's unified role in sex differentiation has maintained its dominant position in mainstream discourse and secondary-school level biology. As Feyerabend (1988) put it, "A little brainwashing will go a long way in making the history of science duller, more uniform, . . ." (11).

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Amenorrhea

Not only the shape of the genitalia and the concealed genetic foundation are elected to convey the truth of sex—famous author and likely billionaire J.K. Rowling mockingly equated womanhood to menstruation. In the context of global menstrual health and hygiene, she took offense at the phrase "people who menstruate," so much that she expressed her frustration on X (formerly Twitter)—likely because this language is inclusive of trans men and non-binary people, while also being considerate of trans and other women who don't menstruate:

> "People who menstruate" I'm sure there used to be a word for those people. Someone help me out. Wumben? Wimpund? Woomud? (Rowling 2020)
>
> —@jk_rowling

Not all women *can* menstruate—not *all* who menstruate are women. As of 2021, over 25% of women globally were aged 50 or older—the age during which most experience menopause as a natural part of biological aging (World Health Organization 2024). Amenorrhea, defined as the absence of menstruation in females of reproductive age, affects approximately 2% of adolescent girls and 3–4% of reproductive-aged women, excluding physiological causes such as pregnancy, lactation, and menopause (Nawaz et al. 2025). Following survey-based studies, transgender and gender diverse people make up 0.3%—8.4% of the world population (Coleman et al. 2022, s26); up to 337[21] million people who don't see themselves as women may depend on obstetric or gynecological healthcare. Transgender people regularly face obstacles accessing general care—in particular, "transmasculine people who depend on OB/GYN services avoid seeking care for fear of discrimina-

21. Up to 3378801720, based on 2023 estimates of the global population assigned female at birth (United Nations 2024).

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tion that has included refusal of care, verbal harassment, and physical violence by staff and/or other patients" (Stroumsa and Wu 2018, 585). Gender-expansive or inclusive language centers the healthcare needs for people across bodily boundaries—it does not seek to erase embraced identities beyond the focus of health concerns. Stroumsa and Wu (2018) summarize, "A powerful reminder for us that people need not be defined or constrained by their genitalia or genders. Even more importantly, it can prompt us to look to our patients as authorities about their own genders and bodies"(587). In closing, menstruation does not consistently mark womanhood; by opening up the categories, and applying universal principles that focus on healthcare needs, providers have a greater chance of sufficiently addressing the concerns of all involved.

Ironically, Rowling reverted to "DNA testing" as the *veritas* of human sex when she participated in the public scrutiny and *transvestigation*[22] of Algerian boxer Imane Khelif. Rowling prompted Khelif to present *evidence* of her womanhood to justify her eligibility for the women's Olympic boxing competition. The controversy was rooted in allegations made by the Russian-led IBA (Beacham 2024)—and on the author's aesthetic judgment of the athlete:

> It's important to highlight that launching a PR campaign and applying layers of thick makeup requires far more time and effort than simply making DNA test results public (Rowling 2024).
>
> —@jk_rowling

Why didn't she demand that boxer Imane Khelif provide proof of men-

22. Transvestigation is a practice in which participants scrutinize the apparent assigned sex of individuals—typically public figures—on the basis of "sexed physiological difference and hegemonic expectations of gendered behaviours, transvestigators deploy cis-normative ideological framing and appeal to pseudo-scientific expertise to legitimize transphobia and conspiratorial thinking" (Webster 2024).

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struation, if that is what makes a woman? Would it be *inappropriate*? We are left to speculate wether the author would have endorsed Alexina Barbin to continue her life in the capacity of her preferred and assigned sex.

In "The Whole Woman," Germaine Greer (1999) went as far as to deprive women with androgen insensitivity syndrome[23] of their womanhood as she marks them as *incomplete males*:

> There is nothing new in using the catch-all category "female" to describe incomplete males. . . . In most cases of AIS the newborn child has been mistakenly identified as female and raised as female (68–9).
>
> —Germaine Greer

While the language used is contemptuous and dehumanizing, it is also an untruthfull assumption: "Given the female genitalia, patients with [Complete] AIS are generally raised as females with few reports of gender dysphoria. . . . patients with [Partial] AIS may be raised as males or females" (Legato 2017). Curiously, years later she conceded that her former perspective was inaccurate:

> I agree that when I first was thinking about what is a woman, I fell for the usual view that women were people with two Xs and men were people with an X and a Y. . . . And I now realize...that this was wrong (quoted in John 2016, para. 3).
>
> —Germaine Greer

23. Androgen insensitivity syndrome (AIS) is a "condition in which an individual with a sex karyotype of 46 XY and internal testes does not respond to testosterone. The body and external genital features appear typically female, though there are no internal female reproductive organs" (Holmes 2008, 167).

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Anisogamy

The second Trump administration decreed a restrictive formulation of sex, rooted in the complementary nature of procreative duties. In Executive Order No. 14168, "Defending Women From Gender Ideology Extremism And Restoring Biological Truth To The Federal Government" (2025), the legal definition of sex is outlined and strict terminology is codified:

> (a) "Sex" shall refer to an individual's immutable biological classification as either male or female. "Sex" is not a synonym for and does not include the concept of "gender identity".
>
> ....
>
> (d) "Female" means a person belonging, at conception, to the sex that produces the large reproductive cell.
>
> (e) "Male" means a person belonging, at conception, to the sex that produces the small reproductive cell.

Anisogamy is a form of sexual reproduction in which "the gametes fusing during fertilization vary in respect to size, shape, and behavior" (Rieger et al. 1976). The smaller gamete, often called a sperm cell, and the larger gamete, the ovum or egg cell, are traditionally termed male and female, respectively. In "The Egg and Sperm," Emily Martin offers a sharp observation about the traditionally gendered framing of sperm and egg cells—a history that consistently assigned figurative character roles that bolster gendered stereotypes. Martin (1991) outlines the following: "In the course of my research I realized that the picture of egg and sperm drawn in popular as well as scientific accounts of reproductive biology relies on stereotypes central to our cultural definitions of male and female" (103). Throughout the history of biology, gametes have been cast in metaphor and infused with meaning, anthropomorphically portrayed in a romanticized narrative: depicting egg cells as *rare*, "passive," "wasteful debris," or a "sleeping beauty," and sperm cells

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as "valuable," *plentiful,* "active," "streamlined," and on a "mission" (Martin 1991). The division along the lines of gamete-size is a scientific construct—while it provides a useful framework within the context of reproductive biology, it also produces counter-intuitive classifications, for instance, seahorse male pregnancy (see Kloc 2023), hermaphroditism, and androdioecy in barnacles (see Yamaguchi et al. 2012). It is not a Platonic ideal or a natural law that provides a universal framework of sexual dimorphism relevant in all conceivable situations.

While the designated roles that gametes play in the formation of human zygotes are widely understood (Barresi and Gilbert 2020; Carlson 2014), the *reproductive cells* referred to in the executive order are merely symbolic. Implementation and enforcement of the proposed categorization is not feasible: people born with ovaries will hopefully never be subjected to systematic high-risk and costly biopsies to determine the presence of oocytes, sperm production does not begin before puberty, and gamete production in people born with atypical gonads is variable and oftentimes in contradiction with observed characteristics (Michigan and Foyouzi 2019). Furthermore, bilateral gonadectomy as well as several health conditions may halt the production of gametes during a person's lifetime—which makes it inherently mutable. To circumvent this problem, the Trump administration decided to rely on the word "sex" as a proxy; it symbolizes the *presumed* production of reproductive cells, or rather, the category of people that *should* or *could* produce small/large cells. An *expectation* is invoked, a prediction of the future, based on prior observation. Additionally, it does not resolve the endless feedback loop that is closed when the definition of *sex* recursively relies on the words *female* and *male*. This is yet another attempt to confine sex into a binary system, but by failing to capture its essence, this endeavor excludes itself from its intended category.

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A tedious task, it seems, defining sex by consistently nominating a singular natural kind without disrupting intuitive understanding. Codifying the elusive spirit of what seems self-evident—capturing that essence that *gracefully unfolds* into phenotypical expression—seems to fail as nature resists complicity with the structures that we enforce upon it. We could ask ourselves to what extent the effort to chase this phantasmatic testimony truly differs from the mythical essence that remains strategically obfuscated.

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Cultural Essence

This model emerges through lived experience; a culturally or politically conceived essence. It is the formation of scars inflicted by patriarchy that sets the stage of womanhood. The duality of male domination and female submission renders this model binary by design, and since lived experience is impossible to forfeit or pursue retroactively, it is inherently immutable. Once a victim of male hegemony, she is destined to live the life that was set out to be lived by the very same perpetrator. Womanhood is *victimhood*; it's inescapable once the body is marked by patriarchal violence and it's *impenetrable*—it is earned, but only granted by birthright, certainly not appropriated.

Excellence

Michigan Womyn's Music Festival, or Michfest was a music festival established in 1976. Michfest was a women-only festival, catering mostly to lesbian and feminsist women—but it was controversial for strongly opposing transgender women, "as festival organizers maintained that it was intended for 'womyn-born, womyn-identified' women" (McConnell et al. 2016, 5). In 1977, a letter written by organizer Lisa Vogel (1977) was directed to the feminist music collective Olivia Records.[24] She states her objection to the inclusion of sound engineer Sandy Stone:

> We are writing concerning your decision to employ Sandy Stone (formerly ——) as your recording engineer and sound technician. We feel that it was and is irresponsible of you to have presented this person as a woman to the women's community when in fact [she] is a post-operative transsexual (para. 1).

24. Olivia Records was a label and lesbian feminist collective "established in 1973, born of a vision to create a space for female artists in the male-dominated music industry". Olivia (now an LGBTQ+ travel company), https://www.olivia.com/about-our-trips/legacy, accessed June 18, 2025.

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. . . .

> Sandy Stone grew up as a white male in this culture, with all the privileges and attitudes that that insures [*sic*]. It was [her] white male privilege that gave [her] access to the recording studio and the opportunity to gain engineering practice in the first place. [She] has never had to suffer the discrimination, self-hatred or fear that a woman must endure and survive in her life. And [she] cannot possess the special courage, brilliance, sensitivity and compassion that derives from that experience. How can we share feelings of sisterhood and solidarity with someone who has not had a woman's experience? (para. 5)
>
> —Lisa Vogel

In this excerpt, *genuine* womanhood—or sisterhood—is characterized by terms one might attribute to human excellence, suggesting that only girlhood brings about this excellence on account of male-imposed subjugation. Self-hatred and fear emerging from gendered power dynamics ostensibly *cannot* lead to female excellence in the formation of nonconforming subjectivities. This polarizing disposition is reflected in the field of psychoanalysis, where unconventional genders and sexualities have seen repeated misrepresentation and abuse in the service of hetero- and cisnormative homogeneity (Barkai 2017).

"Historically, transsexualism was defined in psychoanalysis as an undifferentiated perversion . . . a mental pathology to be healed through psychotherapy and not through clinical surgery" (Origgi and Vial 2013, 127). This tradition stemmed from a moral judgment that positioned trans lives and bodies as undesirable and "repugnant" (Billings and Urban 1982; Laub and Fisk 1974, 388)—characterizing transition as problematic and a suboptimal clinical outcome (Meyer et al. 1974; Meyer 1979, 1010).[25] Psychiatrist

25. Also see Zucker (1990), who argues that "emotional distress . . . and the physically and

Robert Stoller was one of the foundational psychoanalysts working with trans clients and patients in the second half of the 20th century. Building on a substantial body of research on "perversions" of sexuality, he pioneered—along with John Money—in devising the concept of gender as a core element of identity, distinct from sex. Even though Stoller himself expressed disturbing takes on the subject (see Stoller 1984, 1985), perhaps, it was in the hands of whom he inspired that clients and patients suffered most intensely: Green (Bryant 2006; Meyerowitz 2004) Zucker, Bradley, Blanchard (Serano 2010; Schoenike 2024; Tosh 2011; Veale et al. 2012), and so on. Although none of them were trained in psychoanalysis, they all seemed to draw extensively from Stollers work, and Freudian theory in general; centering childhood development, parental roles, trauma, *hatred*, and repression—ultimately aiming to prevent or correct "cross-sex" identification and behavior (Steiner et al. 1985; Stoller 1975). Stoller and his fellow analysts Meyer, Socarides and Steiner were largely responsible for the stringent gatekeeping practices (Meyer 1979; Stoller 1973)[26] and institutionalization that remain prevalent in contemporary care—even advocating for the criminalization of gender-affirming care outside "court-designated medical centers" (Stoller 1969, 316–7).

This stands in stark contrast to a longstanding psychoanalytic preoccupation with normative gender development, as Saketopoulou and Pellegrini (2024) remark, "psychoanalysis has always been thinking about gender formation of cis people; *but it has not been doing so with an eye toward changing the patient's gender*. . . . our professional literature is rife with examples of analysts working with normatively gendered patients" (xxx). There is an important distinction to be made here—between theorizing formation and perversion—and it opens up a space for understanding all gendered subjectivities, cis and trans alike, as constituted through developmental, relational,

socially painful measures" evidently warrant dissuasion (Zucker 1990, 30).

26. Also see Meyerowitz (2004) for a critical historical account of these clinical practices.

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affective, and ideological forces. Vogel's argument to extract the mechanism behind the formation of cis female identity, and to recondition it as a protective *shield* against trans womanhood, is unsubstantiated. In reading hardship as the quintessential precondition for female identity—accessible only to cis women—she is simply working backwards from her presuppositions. If subjectivities are ostensibly shaped into their gender, how can it be then that trans subjectivities are incontestably shaped into perversion?

Privilege

Notwithstanding, Stone's alleged male-assigned *privilege* afforded her access to work in a male-dominated field. Although providing spaces for disempowered and disadvantaged people is crucial for promoting well-being and fostering empowerment (Case and Hunter 2012), asserting that transgender women are privileged and unharmed by dominant societal forces is a blatant denial of the precarious living conditions trans individuals face. "Transgender people are 4 times more likely to experience violence than cisgender people, and crimes are 3 times more likely to be hate motivated" (Flores et al. 2021, e2–e3). Trans and gender diverse people, especially trans women of color, are much more probable to be victims of sexual violence than cis women (Ussher et al. 2022, 1). Almost half of the trans population has experienced sexual assault in the United States (Abern et al. 2023, 1331). While trans women only represent 8.6% of the larger LGBTQ+ community in the US, they "constitute 44% of total murder victims" (Ussher et al. 2022, 4). 82% faced workplace discrimination and harassment (Sears et al. 2024, 2),the unemployment rate is higher, and representation is "concentrated in low-paying jobs" (6).

Access to general healthcare is challenging, "33% reported harassment or denial of care when seeking health care because of their trans identity" (Xie et al. 2024, 618). Only 29% of OB/GYNs feel comfortable providing care for transfeminine people, while 11% refuse to perform Pap smears for transmasculine and breast examinations for transfeminine people (Labanca et al. 2020,

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1992). Trans people are up to 70% less likely to receive cancer screening (Nelson 2019, 421). They are much more likely to engage in sex work; a systematic review shows that 37.9% of trans women in the US participate in sex work, exposing them to a greater risk of HIV infection, 14.1%, and up to 44.2% for trans sex workers of color (Becasen et al. 2019, 2). Living conditions for incarcerated trans women are inhumane, facing sexual assault, exploitation, and abuse from fellow inmates as well as prison staff (Lamble 2011, 243). Trans people are confronted with the choice between abuse and cruelty, or placement in protective custody, "which is usually implemented by placing them in solitary confinement" (Kulak 2018, 300–1).

This brief overview does not even take into account the widespread prevalence of online hate speech, the lack of positive representation in news and entertainment media (Bracco et al. 2024; Mocarski et al. 2019; Pham et al. 2020), or the sexual objectification and fetishization of trans people (Anzani et al. 2021). Nor does it address the effects of internalized transphobia and shame, everyday microaggressions (Bockting et al. 2020; Nadal et al. 2012), or broader patterns of dehumanization and political scapegoating (Cascalheira and Choi 2023; Last et al. 2025), and mental health implications of sports exclusion and bathroom usage restrictions for trans young people (DeChants et al. 2024; DeChants et al. 2025). Most of all, those in search of medically necessary care face excessive barriers through institutional segregation, ongoing pathologization, and gatekeeping obstacles (Ashley 2019, 2024; Berrian et al. 2025; Wright et al. 2021). In conclusion, these realities demonstrate how trans and gender diverse communities categorically do *not* enjoy the presumed "benefits" of their assigned sex. Systemic hardships faced by marginalized trans people closely mirror feminist critiques of patriarchal oppression in several ways. Dominant structures of gendered power affect *all* women, and gender diverse groups alike.

From Kimberlé Crenshaw (1989), we learn that in reducing the compound structures of oppressive forces to one-dimensional categories, we risk

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neglecting those who are most affected (166–7). By locating privilege on a singular axis of sex, many intersecting and aligned struggles are disregarded. Crenshaw argues for a bottom-up approach—one that centers the needs and problems of the most disadvantaged—in favor of governing top-down institutional perspectives that primarily reflect dominant positions (145, 167). "[T]here is more to gain by collectively challenging the hierarchy rather than by each discriminatee individually seeking to protect her source of privilege within the hierarchy" (145). While Crenshaw is mostly oriented toward civil rights from a legal background, Collins' *matrix of domination* conveys a similar message, but from an epistemological and sociocultural angle. Collins argues that oppression manifests within structural and institutional hegemonic systems that extend well into the interpersonal domain. "Placing African-American women and other excluded groups in the center of analysis opens up possibilities for a both/and conceptual stance, one in which all groups possess varying amounts of penalty and privilege in one historically created system" (Collins 1990, 225).

McConnell et al. (2016) attended Michfest in its 2013 iteration. Fitting within a broader research project around feminism, empowerment, and transgender inclusion at the festival (7), they highlight tensions in Michfest's population—and the safe space that it offers to its intended audience—through the lens of the *counterspaces* framework, developed by Case and Hunter (2012). The authors highlight that "although Michfest was a site of safety and self-enhancement for many attendees around their identities as feminist, lesbian women, it also necessitated self-protection in response to oppressive experiences for groups marginalized within the festival, such as women of color and those who supported trans inclusion" (McConnell et al. 2016, 12). These findings illustrate that power dynamics recurse within marginalized groups, and that attention to the complexity and interactive nature of these dynamics is indispensable for fostering just and inclusive environments. Research on group dynamics within safe spaces provides a frame-

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work grounded in practice; and these findings are a tangible reflection of the perspectives of intersectional thinkers like Crenshaw and Collins. By imagining privilege as a scalar quantity, spaces that tend to remove but a single layer of oppression emerge—inducing new complexities and undercurrents. McConnell et al. conclude, "Paradoxically, we may become most aware of our differences in settings organized around some aspect of sameness; our challenge then becomes how to collectively harness the strengths of each in the service of justice" (McConnell et al. 2016, 14).

The intersection of transphobia and misogyny—transmisogyny—has been explored by author Julia (Serano 2016, 15) in *Whipping Girl.* She defines transmisogyny as discrimination specifically targeted at transfeminine people, "It is our expressions of femininity and our desire to be female that become sensationalized, sexualized, and trivialized by others" (14). At the center of this hostility lies misogyny; femininity or femaleness pictured as weak, emotional, soft, dependent, and inferior to masculinity or maleness. It is no surprise than, that anyone wiling to embrace this role will be subject to extreme mockery and contempt—to be "hyperfeminized" and "hypersexualized" (15–16). Transmisogyny is a caricature of misogyny that equally ridicules the failure to adequately *enact* femininity, as well as displaying hyperfemininity and the desire for feminine expression itself. Serano advocates for an intersectional approach necessarily situated within feminism, to "challenge the idea that femininity is inferior to masculinity and that femaleness is inferior to maleness. In other words, by necessity, trans activism must be at its core a feminist movement" (16).

While cautiously aware of the false equivalence underlying the juxtaposition of gender and racial conflict, there are conclusions we can safely draw from the insights learned from reductive and polarizing frameworks of privilege. We should strive to empower communities that acknowledge diverse accounts of gender and sexed embodiment—within a multidimensional matrix along with race, ethnicity, class, sexuality, ability, age, religion,

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and more—rather than sustaining abstract binaries that exacerbate divisions and reinforce power imbalance.

Poltical Identity

The website https://feministcurrent.com, founded by the Canadian PPC candidate Meghan Murphy, features an article from C.K. Egbert (2016). She writes that womanhood is not to be traced back to genitalia, but it is homogenized into a political identity—*ex negativo*. Womanhood is signified by placing it in opposition to the male position. Woman is most of all *not-a-man*:

> People often fail to recognize that "woman" is not a personal identity but a political identity based upon a shared experience of oppression. The purpose of certain women-only spaces is not about excluding those with or without a particular genitalia [*sic*] (we didn't decide that having vaginas and uteruses made one subordinate; men did) or excluding those with a particular gender identity. This isn't about how strongly one identifies as a woman, whether one might subsequently be seen and treated as a woman, or whether one is marginalized and disadvantaged by gender hierarchy (for example, gay men are marginalized by patriarchy even though they are men). It is about controlling for the experience of male privilege (para. 6).
>
> —C.K. Egbert

It is not the experience of living or having lived through oppression that matters, not the formation of the subject through societal structures; it is the privilege inherently contained within manhood that defines the female body—*a priori*. An identity manifested at birth, not temporally constructed and continually evolving, but afforded by virtue of a presupposed victimhood. After all, maybe one *is* born a woman.

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In Monique Wittig's partially eponymous essay "One is Not Born a Woman," she draws from de Beauvoir's widely celebrated aphorism to posit a materialist feminist approach, women as a *class*, a political identity. But in doing so, she clearly distinguished "'women' (the class within which we fight) and 'woman,' the myth. For 'woman' does not exist for us: it is only an imaginary formation, while 'women' is the product of a social relationship" (Wittig 1981, 51). Wittig critiques a feminist approach that "believes that the basis of women's oppression is biological as well as historical . . . it holds onto the idea that the capacity to give birth (biology) is what defines a woman" (48), and in doing so, "we *naturalize* the social phenomena [that] express our oppression, making *change impossible*" (48, emphasis added).

The superimposition of a materialist narrative onto the idealist *myth of the woman* is untenable. Either one *becomes* a woman—through imposition—or one is *born* a woman—into the predefined contours of womanhood; a disposition that is also susceptible to emerge as a *natural obligation*; "a specific social relation to a man, a relation that we have previously called servitude, a relation [that] implies personal and physical obligation as well as economic obligation ('forced residence,' domestic corvée, conjugal duties, unlimited production of children, etc.)" (53).

Both Vogel and Egbert are flaunting materialist feminist aesthetics, while perpetuating the myth of biological preordainment. We can only imagine wether they would have encouraged Alexina Barbin to pursue her life in the capacity of her preferred and assigned sex, being brought up as a girl, reared and surrounded by women.

Resentment

Egbert continues:

> Transgendered women cannot experience all forms of subordination that [cisgender] women as women face. Most female-

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> born women are capable of becoming pregnant at some point in their lives. For those who cannot, infertility is often considered a "problem" that needs to be "fixed." Transgendered women do not experience disadvantage by virtue of their reproductive role (they don't need abortions, for instance), and neither are they considered somehow "defective" by virtue of not being able to fulfill a particular reproductive role (Egbert 2016, para. 7).
>
> —C.K. Egbert

The failure to acknowledge that trans bodies are extensively deemed defective on all counts—dehumanized, artificial, damaged, mutilated, and incapacitated, especially in relation to reproduction (Cascalheira and Choi 2023; Leigh 2025, 11)—precisely demonstrates the double standard and ideological bias evident in the juxtaposition of trans and cis female oppression and distress. Furthermore, the author callously expresses rancor when she portrays women experiencing infertility as privileged by *virtue* of not *needing* abortion. The enduring anguish over the inability to bear children that affects and haunts many trans women and non-binary people (Asseler et al. 2024, 2036–7) is not only disavowed; it is strategically exploited and weaponized to deprive us of womanhood. Findings show that "[d]esire for parenthood among transgender women appears to match those held by cisgender women" (Bayar et al. 2023, 465). This audacious misconception echoes a much older allegation made by Greer (1999), both illustrating a severe lack of engagement with the very people they denounce:

> MTF transsexuals have so far shown no more interest in reproduction than most men do (68).
>
> —Germaine Greer

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Biopower

In the following excerpt from the podcast "Wine with Women," Joyce portrays trans people as damaged and in need of lifelong special accommodations:

> We have to try to limit the harm, and that means reducing or keeping down the number of people who transition, and that's for two reasons. One of them is that every one of those people is a person who's been damaged, but the second one is that every one of those people is basically, you know, a huge problem to a sane world. Like, if you've got people that, whether they're transitioned, whether they're happily transitioned, whether they're unhappily transitioned, whether they're detransitioned, if you've got people who've dissociated from their sex in some way, every one of those people is someone who needs special accommodation in a sane world where we re-acknowledge the truth of sex, and I mean the people who've been damaged by it. . . . I'm saying every one of those people; for 50, 60, 70 years is going to need things that the rest of us just don't need because the rest of us are just our sex, so the fewer of those people there are, the better in the sane world that I hope we will reach (Staniland 2022, 4:52).
>
> —Helen Joyce

In addition to her judgmental attitude expressed in evaluating bodies by their functioning and capabilities, depicting people in need of accommodation as *problematic* to a *sane* world is profoundly pathologizing and ableist. This notion of a *sane* world—in which bodies are politicized and functionally regulated—aligns with Foucault's concept of biopolitics; techniques aimed at shaping and normalizing behavior to produce governable

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populations and dispositions that align with a *rational civil society*. As Foucault (2003) writes in *Society Must be Defended*, "The more inferior species die out, the more abnormal individuals are eliminated, the fewer degenerates there will be in the species as a whole, and the more I—as species rather than individual—can live, the stronger I will be, the more vigorous I will be. I will be able to proliferate" (255).

In contrast to her prior remarks, the same thinker situates trans women in a position of masculine power and dominance in the podcast "Why Sex Matters in Life and Law," directing attention toward the penis and highlighting its potency as the origin of aggression.

> There just are these very powerful men whose entire aim in life is to transgress women's boundaries and to force everyone else to pretend that they're women because they get a neurotic thrill out of it. And those men think about nothing else, like men and their boner. Excuse me, that is the greatest force in human history, as far as I can see (Winn 2025, 1:6:35).
>
> —Helen Joyce

Cognitive dissonance? Let it remind us of Umberto Eco (1995) on fascism, "The enemies are at the same time too strong and too weak" (para. 44). Eco's notion extends much further into the social fabric; depictions of indolence, subservience and feebleness versus domination, profanity and brutality are employed to mark and ambiguate marginalized groups. As Collins explains, "Portraying African-American women as stereotypical mammies, matriarchs, welfare recipients, and hot mommas has been essential to the political economy of domination fostering Black women's oppression" (Collins 1990, 67). Of similar nature, Espiritu (1997) describes how Asian Americans are subject to these contrasting renditions, "Asian men have been cast as both hypermasculine (the 'Yellow Peril') and effeminate (the 'model minority'); and Asian women have been rendered both superfeminine (the 'China Doll')

and castrating (the 'Dragon Lady')" (Espiritu 1997, 135–6). These bipolar caricaturizations serve to provoke both fear and contempt, a tactic well suited to dehumanize and subordinate "the enemy"; *no enemy is so easily defeated as one whose menace is the product of imagination*. It allows for an arrangement of society; first by allocating the outsider into a designated category with preconceived associations, and then by creating stable narratives that facilitate and justify subjugation, exclusion, and ultimately violence.

Trans women must be degraded, diagnosed as mentally ill, and construed as a burden to society in order to support the withdrawal of medical care. Trans women must be feared as sexually charged and violent *biological men* to allow for exclusion from safe-spaces, lavatories and eventually social participation. Trans women must be imagined as deceivers—*traps*—lest your shame-infused murders remain justified and unreprimanded.[27] In contrast, women—"*actual* women"—are displayed as weak, delicate and vulnerable, whilst their *confused daughters* are endangered by "gender-ideology."

Agenda

While Joyce may not hold a position of authoritative power, her words resonated well through the UK Supreme Court in the For Women Scotland Ltd case (Sex Matters, n.d.)[28], and are echoed by authoritarian leaders. Alongside Pope Francis, autocratic leaders (Nord et al. 2025, 14, 34, 44) Giorgia Meloni, Recep Tayyip Erdoğan, Andrzej Duda, and Viktor Orbán all portrayed "gender-ideology" as a dangerous and destructive force; vilifying its proponents as a threat to the nuclear family and the ethno-state (Csonka 2023; Indelicato and Magalhães Lopes 2024; Kosc 2020; Perry 2025; Zen-

27. See Michalski et al. (2022) on "trans panic defense".

28. "Sex Matters" was permitted to intervene, along with several other trans-antagonistic activist groups. Joyce, Director of Advocacy of Sex Matters recounts that "the judges thanked us for our cogent analysis so we helped them to do this exercise of statutory interpretation that allows you to think through what all these different laws mean, how words have to be interpreted" (Spiked 2025, 2:04).

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garini 2024). Gender and queer liberation appear to be in good company with democracy and human rights, in Russia, where public queer expression has been criminalized since 2022 (Riedel 2023), "Duma speaker Vyacheslav Volodin called gender-affirming surgery a 'path to the degeneration of the nation'" (Papachristou 2023). In Georgia, a controversial "Family Values" bill banned all gender-affirming care for trans and gender diverse people (Bergfeldt 2024). In Uganda queer people are threatened by "one of the world's harshest anti-LGBTQ laws, with punishments up to and including the death penalty" (Obulutsa and Lawson 2023). The term "gender-ideology" presumably came to life in the 1998 publication *La Ideología de Género* by Peruvian Catholic Bishop Oscar Alzamora Revoredo (1998). It was later translated to English and published in the Vatican's 2006 *Lexicon: Ambiguous and debatable terms regarding family life and ethical questions* (Pontifical Council for the Family 2006, 465–482).

Revoredo based his work on *Gender: The Deconstruction of Women*, written by Dale O'Leary, author of *The Gender Agenda*. O'Leary echoed concerns raised by attending members of the 1995 Beijing "World Conference on Women", regarding definitions of the word *gender*. 30 years later, it has become an historically relevant document, demonstrating a striking resemblance to tensions within contemporary feminism and the so-called gender-critical movement. Leaning on Christina Hoff Sommers, O'Leary draws a sharp distinction between *equity* feminism, and *gender* or *radical* feminism. The former being an assimilationist movement that had allegedly achieved most of its goals: obtaining moral and legal equality, *near* closure of the pay-gap, and solidifying (wealthy) women's position in society. The latter group rejected *biology as destiny*, challenging stable constructs like the family, marriage, and women's role in child-rearing as fundamental conditions of society (O'Leary 1995, 7). They were deemed radical because the movement asserted that moral and legal equality can only be attained through the deconstruction of gender. But O'Leary disregards feminist concerns alto-

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gether, she struggles to envision a world in which freedom for women means not just "the ability to act without undue restraint, but women's freedom from socially constructed gender roles" (O'Leary 1995, 10). She cites Sommers in "Faith and Freedom", "[Gender feminists] see marks of patriarchy everywhere and expect it to get worse. But there is no basis for this in American reality" (*Defining Feminism* 1994, 2).

O'Leary and Revoredo assert that "biology is reality—if the real differences between men and women are not taken into account in planning programs, it is women who will suffer" (O'Leary 1995, 14). Arguing that—because men cannot give birth—women are disadvantaged when they are "forced into competition with men in those areas which men are biologically better equipped to succeed" (14), the exact premise that is refuted by the *radical gender* feminists—who claim that women's material conditions and subordination, and not a *natural inferiority*, are at the center of women's subjugation. At its conception, the critique of so-called gender-ideology was not this particular rebuttal of liberated sexed identity, as it appears in contemporary disputes (Thurlow 2024, 965). Gender feminism was a much broader contestation of themes now central to widespread feminist discourse: extramarital sex, homosexuality, heteronormativity, compulsory heterosexuality, the family as a cornerstone institution, reproductive rights, and so on. This divisional line locates the present day "trans-exclusionary radical feminist" (TERF) movement within the confines of the reactionary catholic rhetoric, and strongly in opposition to the *radical* gender feminist "agenda" that strongly controverted biological determinism. In a similar way to how this contemporary movement reifies women as a closed category threatened by *gender*, O'Leary centers and *arrogates* the "majority of women," the "family," "motherhood," and "nature" as threatened and victimized by gender-ideology (O'Leary 1995, 7–9). This text illustrates how determinist positions of the TERF movement are inherently irreconcilable with emancipatory feminism.

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Proprietorship

In the following quote from Greer, the mere existence of a trans woman, her identification as a woman is characterized as an intrusion into a *sanctified space*, an infringment of personal integrity. It is a canonical example of gender *proprietorship*. Through the act of sex assignment, the immanent privilege of ownership and governance over womanhood is bestowed:

> No one ever asked women if they recognized sex-change males as belonging to their sex or considered whether being obliged to accept MTF transsexuals as women was at all damaging to their identity or self-esteem (Greer 1999, 68).
>
> —Germaine Greer

A sense of identity and self-esteem are delicate traits that are well worth protecting, but apparently not for all humans. Male privilege is placed in stark contrast to the female privilege that it engenders, possibly through an understandable yet misdirected *retribution* for inflicted wounds. In *The Transsexual Empire*, Janice Raymond laid the foundation of this narrative. She describes her sentiment around the events of the Michigan Women's Music festival:

> As one woman wrote of Sandy Stone and the Olivia controversy: "I feel raped when Olivia passes off Sandy, a transsexual, as a real woman. After all [her] male privilege, is [she] going to cash in on lesbian feminist culture too?" Rape, of course, is a masculinist violation of bodily integrity. All transsexuals rape women's bodies by reducing the real female form to an artifact, appropriating this body for themselves (Raymond [1979] 1994, 103–4).
>
> —Janice Raymond

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There is an accusation of rape by the hand of an entire demography. While the exact definition of what constitutes as rape is variable, it typically pertains non-consensual penetration involving coercion or the incapacity to express consent (Smith 2004, 169–70). While it may be used metaphorically, it is expected to imply, nonetheless, a violation of personal boundaries. Yet there are no victims, no damage, no personal reports of emotional trauma on account of people merely *existing* and enacting universal human behavior. Masculinity and femininity, in terms of expression—behavior, attire, language, gestures, and so on—are proper to all people and not strictly designated to sex classes. Moreso, a trans woman's body is not missappropriating femaleness when hormone replacement therapy induces female phenotypical expression. It is *her* body, her biology and her genetic material, can you pattent endocrine modulation of phenotypic expression? Again, it is through the proprietership of a category and associated abstract properties that the author feels entitled to claim vitcimhood. An entire category is held morally responsible for the collective rape of another category. Raymond's work is widely considered a bitter expression of hatred pointed toward trans peopleand it has been thoroughly rebutted by Sandy Stone (1992) herself in "The Empire Strikes Back: A Posttranssexual Manifesto", a text now widely celebrated as a "founding document of contemporary trans studies" (Stryker and Bettcher 2016, 10).

This Culture

The following fragment from the same book by Raymond ([1979] 1994) raises an interesting question:

> We know that we are women who are born with female chromosomes and anatomy, and that whether or not we were socialized to be so-called normal women, patriarchy has treated and will treat us like women. Transsexuals have not had this

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> same history. No man can have the history of being born and located in this culture as a woman. He can have the history of wishing to be a woman and of acting like a woman, but his gender experience is that of a transsexual, not of a woman. Surgery may confer the artifacts of outward and inward female organs but it cannot confer the history of being born a woman in this society (Raymond [1979] 1994, 114).
>
> —Janice Raymond

What is *this* culture? Is a woman only a woman in *this* culture and society? What is the *universal* experience that renders her a woman? That of a working-class woman? A white woman with a cigar and scotch on a yacht, or an African woman trafficked and enslaved? Indigenous women of the Americas or the Pacific? An Algerian boxer or a South African runner? What about Yorùbá or Mosuo women? What is it that binds all women across spatio-temporal boundaries, disqualifies intersex and trans women, belittles and patronizes trans men, and scorns non-binary people? Perhaps it *is* the body after all? Most strikingly, a white Christian imperialist *reading* of the body. A reaffirmation of the colonial intrusion of gender that effaced diverse accounts of womanhood, through which a stable and binary notion became legible as naturally conceived. *So* natural that all other accounts of womanhood are simply left unacknowledged when defining that cultural essence.

* * *

Harm and discrimination inflicted through violence and normative forces is downplayed when targeted toward incongruent and nonconforming bodies. It does not seem to contribute to shaping reality—only violence committed by the (presumed) penis is acknowledged to mark the body as inherently female. More so, it is reappropriated to disenfranchise those who wish to redefine their own embodiment. The political female identity is

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mythologized. The heiress of white womanhood—inherited from cultural feminism—retaliates against those of us seeking alignment. We are deemed complicit in her *rape*; her denial of vindication and absolution marks a shift in control and begets superiority; empowerment and satisfaction transcending resentment into symbolic revenge—*ressentiment*. Although efforts could be made to untangle biology from its preconceived purpose in a destiny marked by oppression, the perpetual accumulation of commodified victimhood and the reciprocal imposition of assaulthood do not benefit the project of emancipation. It's *serving* feminist attitudes but it doesn't serve feminism.

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Discussion

Biology of human sex is commonly misrepresented as a *natural* binary (Blackless et al. 2000, 151), by virtue of our capacity to present phenotypically in two distinct directions, conditioned by steroid hormones (Barresi and Gilbert 2020). Archetypal representations of the *feminine* and *masculine* expression exemplify polar extremes within a population that is otherwise bimodally[29] distributed among a multitude of perceived characteristics. Binary frameworks envision and encourage perceptual convergence of the prototypical modes toward the archetypical extremes. The analysis of human diversity within a spectral framework is preceded by the provided dataset—the population; the spectrum is a lens, not a container. A conceptualization error is made when the framework is reified to bring about the results it is set out to bring forward: if you look for one or the other, you will find *only* these two kinds. "What a man sees depends both upon what he looks at and also upon what his previous visual-conceptual experience has taught him to see" (Kuhn and Hacking 2012, 113).

Binary models *rely* on arbitrary thresholds of tolerance to reject irregularities or outliers on account of their own limited accuracy. We could come to an agreement; try to negotiate at which exact point the grains of sand transi-

29. In a bimodal distribution, there are typically two distinct modes that are visibly discernible, though they may partially overlap. A mode is "the most freuquently occuring measurement in a set of data . . . But it is perhaps better to define a mode as a measurement of relatively great concentration (Zar 2010, 27)."

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tion into a heap. But when we think of sand, we're not *moving* grains into the heaps that we examine because the observer does not interfere. The taxonomy of human sex does not only *study* bodies and behavior, it exerts power over the subjects of its own inquiry by perpetually reestablishing an assignment that was never initially even consented to.

Legal recognition of sex reassignment without coerced sterilization is unattainable for the vast majority of people (Mendos and Rohaizad 2024, 184), while vested rights are being eroded (Melley et al. 2025; Mulvihill and Johnson 2025). Reparative "conversion" practices (SOCE and GICE)[30] that coerce behavior and desire into conformity still remain legal around the world (British Psychological Society 2022; Wakefield 2022). Despite efforts made by the UN and major health associations to condemn coercive practices, (Madrigal-Borloz 2020; Rafferty et al. 2018), "conversion" or "gender-exploratory"[31] therapy is even endorsed by institutions (Cass 2024; HHS 2025; Horton 2024; Moore 2022). Access to medical interventions is either restricted by pathologizing institutional policies and years long waiting lists (Ashley 2019; Grant et al. 2025; Ross et al. 2023; Van De Grift et al. 2024; House of Commons 2023a, col. 566), prohibited through state enforced barriers (Trans Legislation Tracker, n.d. Melley 2024), or coerced without patient consent (Muschialli et al. 2024). The regulation and policing of bodies is instrumental to sustaining a binary harmony and upholding the very same status quo that was initially invoked for the purpose of sex assignment (Katri and Sudai 2025).

30. SOCE and GICE are abbreviations for "Sexual Orientation Change Efforts" and "Gender Identity Change Efforts respectively" (American Psychological Association 2009).

31. Gender-exploratory therapy (GET), first introduced by Psychologist Anastassis Spiliadis (2019) is a therapeutical framework that claims to offer a "skeptical" stance, positioned in contrast to the widely supported gender-affirming clinical approach (Coleman et al. 2022). GET has sparked controversy, critics argue that it's a euphemism or a rhetorical shield for reparative "conversion" therapy. As Florence Ashley concludes, "Despite the language of exploration, gender-exploratory therapy shares more with interrogation, if not inquisition" (Ashley 2023).

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Binary and immutable are not interchangeable qualifiers; mutable properties can live within a binary system, and immutable traits can be diverse. By conflating the terms and interchanging them deliberately, it seems that we are not seeking to define the sexed body as much as rebuking the fluidity of sex as a concept. Not only challenging the variability, plasticity, and temporality of biology, but negating the sexed body as a discursive field. Those who live below that threshold are systematically dismissed when discourse is discarded. The very existence of the threshold is trivialized. There is no space for discourse in courts[32], legislative institutions[33] and executive powers[34] when they unilaterally defy the fluidity of sex. It is crucial that we learn to identify the patterns of violence inflicted on those living below that threshold. We must acknowledge that our entitlement to open inquiry is actively denied through self-perpetuating commonsensical thought and the imposed significance of the procreative imperative.

* * *

The mythical, model asserts the narrative of an unarticulated essence, expressed through biology but tacitly contained—through our own judgment, it is imbued with meaning. The biological, model attempts to simplify that narrative and elucidates a facticity conveyed within, often overlooking the shadows cast by its own clarity. The cultural model casts the body from a rigid mold, modeled on the master pattern that is male oppression; the course of life is preordained—so is the shape of the body.

32. Dr Victoria McCloud sought leave to intervene at the UKSC case of FWS, "backed by the Good Law Project along with a trans man. The court refused to allow trans people to put in evidence reflecting the impact of potential interpretations of the act on the trans community" (QueerAF 2025, 05:09).

33. In Hungary, a 2025 amendment to the constitution "allows the government to ban public events by LGBTQ+ communities," as well as providing a restrictive definition of sex as binary and immutable (Spike 2025)

34. In the US, the second trump administration used executive powers to restrict gender reassignment rights (Mulvihill and Johnson 2025)

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This list is far from exhaustive, but these are the most prevalent essentialist perspectives used to form a constrictive definition of sex. They are not distinct tactics elegantly deployed to tackle the problem, but rather intermingled methods conveniently alternated and engaged on demand to uphold prevailing preconceptions—frequently at odds with one another. Furthermore, proposing formulations of improved models that better articulate intuitive understanding may prove to be foolish—the inaccuracy and subjective nature inherently present in all efforts made to discern sex may as well be understood as an opportunity for discourse and possibility, rather than provoking contention and contempt.

In my observation most arguments and endeavors to govern over bodies are effectively at it's root reducible to mythical thinking, yet I will refrain from drawing decisive conclusions. When ill-defined and intuitive conceptions of embodied expression are codified into law, they become mechanisms of coercion and disciplinary power, arbitrariness masquerading as order.

When it is said that *sex matters*, an assertion is made to reject gender as a historically construed subject in favor of a stable depiction of the distinctions that nature *provides*—preceding all signification. However, once extracted what is learned from that truth is then applied to structure society and to objectify subjectivities, it seems that it is truly gender that matters. If gender is what assigns meaning to the apparent qualities of sex, such sloganesque expressions paradoxically disintegrate as they relocate themselves into the realm of gender. This appeal to nature and its arrogance to determine destiny is exactly what feminism has sought to scrutinize and dislodge from its historical constraints.

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