



The Scientific and Radical Feminist Case Against Biological Determinism



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As radical feminists, we must base our politics in reality while also keeping our mission at the forefront. There is a false dichotomy presented between nature and nurture; only the dialectical interaction between the two is based in material reality. We cannot allow ourselves to fall prey to fatalism and apathy because of the false yet popular narratives that men push about both themselves and us. As Andrea Dworkin told that crowd of 500 men: "I came here today because I don't believe that rape is inevitable or natural. If I did, I would have no reason to be here. If I did, my political practice would be different than it is." (p. 169)

Her words are a reminder that radical feminist resistance is not rooted in passivity or naïveté—it is a conscious, relentless belief in the possibility of real change for women. We must reject the distorted biological explanations and faulty assumptions society offers to explain why men harm women so that we can begin working towards the targeted elimination of male supremacy.

Radical feminists frequently have to explain that "radical" does not mean "more feminist," "extreme," or reactionary in any way—radical is an adjective, meaning "of, relating to, or proceeding from a root." Investigating the root causes of oppression is imperative for not only consciousness raising and feminist organization, but enacting material progress. Since the advent of feminism, feminists have debated the factors that contribute to men's oppression of women. Why are males, our oppressors, the way they are? Is their tendency towards violence innate, or learned? Are we fighting a biological war, or a social one?

Valerie Solanas suggests in her SCUM Manifesto that "[the] male is a biological accident: the Y (male) gene is an incomplete X (female) gene, that is, it has an incomplete set of chromosomes. In other words, the male is an incomplete female, a walking abortion, aborted at the gene stage. To be male is to be deficient, emotionally limited; maleness is a deficiency disease and males are emotional cripples." (Valerie Solanas, SCUM Manifesto, 1967, p. 3) This reversal of misogynistic talking points, while humorous and enjoyable to read, is unfortunately an empty platitude that we cannot afford to base our politics on. We cannot tirelessly debate nature versus nurture without analyzing the real material conditions.

The idea that biology is the underlying cause for patriarchy is rooted in the visceral reality of male violence; however, we must acknowledge that these same lines of thinking are used against women. How often have we heard from men, even those who claim to be feminists or "leftists," that women are better suited biologically to serve revolutions on the sidelines, watching on from the kitchen as we raise their progeny? That our innate,

nurturing tendencies make us prime candidates for "care work," but never leading or organizing?

The assertion that males are biologically doomed to enact violence for eternity is not just scientifically flawed, it is also a political dead end. If we base our feminism on biological fatalism, we will doom ourselves in the process. How do we fight against something that is supposedly biologically inextricable from humanity? Do we turn to sci-fi phenomena, engineering men to be "fixed?" Solanas suggests in her manifesto: "If men were wise they would seek to become really female, would do intensive biological research that would lead to men, by means of operations on the brain and nervous system, being able to be transformed in psyche, as well as body, into women." (p. 38)

Biological determinists might suggest we should cull the ultimate scapegoat of the patriarchy: **testosterone**. Testosterone is often cited as the reason why "boys will be boys." Many of us have seen firsthand that boys undergoing puberty—riddled with testosterone—act differently from how they did before. They are more aggressive, less reasonable. Therefore, society makes excuses for their behavior. *They can't help it; it's their biology.* But is this idea based in reality? Robert Sapolsky, professor of biology, neurology, and neurosurgery at Stanford, writes:

"When people first grasp the extent to which biology has something to do with behavior, even subtle, complex, human behavior, there is often an initial evangelical enthusiasm of the convert, a massive placing of faith in the biological components of the story. And this enthusiasm is typically of a fairly

Similarly, in subtraction experiments with males, castration lowers aggression on average (rarely to zero; sometimes not at all). The more there is social experience of aggression before castration, the more aggressive behavior persists, as social conditioning can more than make up for the hormone. Sapolsky explains in more scientific terms that "If and only if the amygdala" is already sending an aggression-provoking volley of action potentials down the stria terminalis, testosterone increases the rate of such action potentials by shortening the resting time between them. It's not turning on the pathway, it's increasing the volume of signaling if it is already turned on. It's not causing aggression, it's exaggerating the preexisting pattern of it, exaggerating the response to environmental triggers of aggression." (Sapolsky, p. 114)

It can be a hard pill to swallow, but we must accept that castration, merely reducing testosterone, is not enough to eliminate male violence against women. The sad fact is that men could be better; there is nothing biologically preventing them from changing their ways and deciding to stop beating and raping women. To dismantle male supremacy, we must eliminate the conditions that sustain it—those that demand and glorify aggression and imbalance of power. We are capable of real change. Feminists around the world have worked to protect newer generations from the struggles they endured: they've fought tooth and nail to outlaw child marriages, to provide us with abortions, to raise their sons and brothers to view woman-hating practices as the disgusting systems that they are.

aggression cannot be explained away as mere biological flaws. Male violence rises and falls depending on cultural norms, legal consequences, and socialization.

To learn more, let's take a look at a curious case of female animals that are uniquely affected by their biology and environment. Spotted hyenas are mammals that feature a sex-reversal system—females of this species secrete more testosterone than males and socially dominate their male counterparts. They are more muscular, more aggressive, and even possess masculinized genitals to the point that it is difficult to differentiate between male and female sex organs. This piqued the interest of scientists, which led to zoologist Laurence Frank transporting a group of hyenas far from

their homeland in Kenya to California in order to study them more intimately.

In the hills of UC Berkeley, female hyenas appear identical to their sisters in Kenya. They sport the same elevated androgen levels and pseudopenises. However, having been forcibly removed from their country of origin, the hyenas' social system does not function the same. Removed from their established systems, these female hyenas do not learn to dominate their male counterparts, and thus, it takes much longer for social hierarchies to emerge. (Sapolsky, p. 114–115)

reductive type—because of physics envy, because reductionism is so impressive, because it would be so nice if there were a single gene or hormone or neurotransmitter or part of the brain that was it, the cause, the explanation of everything. And the trouble with testosterone is that people tend to think this way in an arena that really matters." (Robert Sapolsky, "The Trouble with Testosterone" in The Trouble with Testosterone and Other Essays on the Biology of the Human Predicament, 1997, p. 115)

Turning to biology to rationalize male aggression is tempting; biology seems more tangible than socialization and environmental factors. It also appears promising, as on average, men have higher testosterone levels and tend to be more aggressive than women. Life stages when testosterone levels peak tend to correspond with periods of increased aggression, which is supported by the anecdotal experiences of many women. The scientific basis of a link between testosterone and aggression comes from subtraction and replacement experiments—remove the source of testosterone, and aggression levels fall (but only to an extent). Inject synthetic testosterone, and aggression levels rise again.

But what if we look at the individual level? If we observe differences in aggression among a group of males and then check their testosterone levels, is there a correlation? Yes—however, as Robert Sapolsky further explains, this is not causation: "Study after study has shown that when you examine testosterone levels when males are first placed together in the social group, testosterone levels predict nothing about who is going to be aggressive. The subsequent behavioral differences drive the hormonal changes, rather than the other way around. (p. 110–111)

Testosterone is a hormone with what endocrinologists refer to as a "permissive effect". It has a modulatory role, not a causal one. You need a bit of testosterone (roughly 20%) to see normal aggression levels; remove it entirely, and aggression usually decreases; increase it to four times the normal levels, and aggression does rise—but only in specific contexts.

What does that look like in action? Sapolsky describes a typical experiment with a group of male monkeys. Allow the group to form a dominance hierarchy and number them 1-5. Observe that monkey number 3 is domineering and aggressive towards numbers 4 and 5. but subservient to numbers 1 and 2. Inject number 3 with significantly more testosterone than you would normally see, and on average you will observe an increase in aggressive interactions. Does this indicate that testosterone causes aggression? No. The increase in violence is not universal, it only increases in contexts where it had already been occurring. Monkey 3 will not begin to terrorize 1 and 2, it will only become more aggressive to those it had previously targeted (4 and 5). As Sapolsky clarifies, "This is critical: testosterone isn't causing aggression, it's exaggerating the aggression that's already there." (Sapolsky, p. 113)

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Why is this relevant to radical feminist politics? Let's consider Andrea Dworkin. In the fall of 1983, Dworkin found herself in front of a crowd of 500 men. She was speaking at an event that many modern day radical feminists would balk at: the Midwest Regional Conference of the National Organization for Changing Men. She thought it was an interesting opportunity—a chance to say anything she wanted to mankind. She chose to ask them for something small, just to start with: A 24-hour truce where no man would rape a woman or girl. "Every three minutes a woman is being raped. Every eighteen seconds a woman is being beaten. There is nothing abstract about it. It is happening right now as I am speaking," Dworkin addressed the room teeming with men. "And it is happening for a simple reason. There is nothing complex and difficult about the reason. Men are doing it, because of the kind of power that men have over women." (Andrea Dworkin, "I Want A Twenty-Four-Hour Truce During Which There Is No Rape" in Letters from a War Zone, 1989, p. 163)

If men are raping and beating because of the biological power that men have over women, we must closely examine where that power emerges from. The violence Dworkin describes is not inevitable. Our celebrates society and encourages aggression, but

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