

## Why States Must Define Sex Precisely

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There are several ways to define sex precisely. Any good definition will capture the central concept of biological sex—the orientation of male and female bodies for reproduction. It will also refer to what happens under normal development while accounting for disorders. Finally, it will accommodate the fact that organisms have and do different things at different stages of development.



Until recently, no precise legal definition of sex—and especially the terms “male” and “female”—was needed because no one contested it. Unfortunately, because of gender ideology’s growing influence on our laws and institutions, states no longer have this luxury. Gender activists are now working to redefine sex in federal laws and regulations, such as [Title IX](#), to include “gender identity.” If this succeeds, it will subvert all preexisting legal references to sex, contrary to their original intent.

Some state legislators are proposing to define sex by tying it to biology, but in an artfully vague or general way, in order to distinguish it from “gender.” Here’s a common formulation that appears in bills dealing with pediatric gender medicine:

“Biological sex” means the biological indication of male and female in the context of reproductive potential or capacity, such as sex chromosomes, naturally occurring sex hormones, gonads, and nonambiguous internal and external genitalia present at birth, without regard to an individual’s psychological, chosen, or subjective experience or gender.

“Gender” means the psychological, behavioral, social, and cultural aspects of being male or female.

It’s not clear why the term is being defined as “biological sex” rather than “sex” simply. After all, the purpose of the definition is to tie sex to biology, so the qualifier “biological” is redundant. More to the point, this definition provides no explanation of the difference between males and females. As a result, it’s not likely to do much good in cases where that difference is at issue.

Recognizing this problem, some states have begun to propose legislation to define these terms in state law. Montana is currently debating one such law, [SB 458](#) (2023). To see why this needs to be done, we must understand what gender ideology is and the confusion that it creates.

### **What Is Gender Ideology?**

Gender ideology’s intellectual pedigree is complex. For our purposes, however, we can focus on its orthodox formulation in school curricula, popular culture, and medicine. In this form, it displaces the sexual binary of male and female—which describes all mammals including humans—with two subjective notions: First, an internal sense of gender called “gender identity” that is distinct from, and can even be in discord with, the body; and second, mere “sex assigned at birth.”

Hence, its most ardent champions do not refer to a person’s sex when defining their terms. The Ontario Human Rights Commission is representative. “Gender identity,” the commission explains, “is each person’s internal and individual experience of gender. It is a person’s sense of being a woman, a man, both, neither, or anywhere along the gender spectrum.” Note that the same word appears in both the definition and the word being defined. That circularity is a

philosophical necessity because gender ideology detaches gender identity from biological sex.

This way of speaking and thinking is the essence of gender ideology.

Efforts to redefine terms such as sex to comport with the lexicon of gender ideology threaten many important social goods. To preserve these goods, states need to anchor their legal definitions of sex, and related terms such as “male” and “female,” in the solid ground of biological facts.

### **A Campaign of Confusion**

The main way gender ideologues have confused the public is by falsely claiming that [disorders of sexual development](#), often mislabeled “intersex” conditions, prove that there are more than two sexes—or that the sexes are somehow [fluid or mere endpoints on a spectrum](#).

Such disorders occur in [0.018 percent of the population](#). [1.8 persons in 1,000] In some such cases, however, newborns have ambiguous genitalia. This makes the task of determining sex more complex.

Nevertheless, appealing to these disorders to justify gender ideology is an intentional diversion. First, none of these conditions produces other sexes or “genders.” Second, gender ideology provides no new insights into these disorders. Third, people who identify as transgender or nonbinary rarely have one of these disorders. And fourth, no such disorders correspond to the growing list of “gender identities.”

### **Defining Sex Imprecisely**

Unfortunately, some who seek to defend the reality of sex—that is, the sexual binary—offer hasty and imprecise definitions, which can serve to discredit their efforts.

A bill might claim, for instance, that all humans are either male or female and have either XX or XY chromosomes—corresponding to females (XX) and males (XY). But, as noted above, there are rare chromosomal disorders where this doesn’t hold. If the wording of the law fails to account for people with these disorders, it provides a target for critics to torpedo the legislation.

The same sort of problem arises with some common ways of defining the two sexes. One might say, for instance, that “a woman can have babies; a man can’t.” That’s true—but it’s not a definition of “man” or “woman.” After all, some women have had hysterectomies, or have gone through menopause. Do they not count as women? Of course they do. So much the worse for the definition.

Now, everyone intuitively feels that the difference between men and women has something to do with the ability to have babies. And there are ways to state the intuition precisely. For instance, to speak in the argot of “[set theory](#),” you can say that the set of people who can have babies is a proper subset of the set of women. The set of all men, in contrast, contains no subset that can have babies.

And if you remember high school biology, you know that XX and XY chromosomes have *something* to do with sex. But biology is complex, and definitions are hard to get just right. Set theory or chromosomes might help us understand the difference between males and females, but as a matter of law these definitions are not precise enough. Vague legal definitions create openings for gender ideology to gain a foothold.

### **Defining Sex Precisely**

Here’s the good news: there are several ways to [define sex precisely](#). It just takes some work. Any good definition will capture the central concept of biological sex—the orientation of male and female bodies for reproduction. It will also refer to what happens under normal development while accounting for disorders. Finally, it will accommodate the fact that organisms have and do different things at different stages of development.

For instance, a female human embryo does not menstruate or get pregnant—nor does a woman who has passed through menopause. A male embryo very early in development does not (yet) have a penis or testes.

The definitions provided in Montana’s [SB 458](#), for instance, account for both disorders and development. A human male is, *minimally*, a member of the human species who, under normal development, produces relatively small, mobile gametes—sperm—at some point in his life cycle, and has a reproductive and endocrine system oriented around the production of that gamete. A human female is, *minimally*, a member of the human species who, under normal

development, produces relatively large, relatively immobile gametes—ova—at some point in her life cycle, and has a reproductive and endocrine system oriented around the production of that gamete.

The phrase “under normal development” does a great deal of work in these definitions. We grasp the existence of distinct animal taxa (species, genera, families, classes, etc.) intuitively. “Human” refers to our species (*Homo sapiens*). We also distinguish abnormal from normal development without much effort.

For instance, we know that humans are bipeds—that they naturally have two legs. But if a child is born without one or both legs, do we conclude that the newborn isn’t human, is a member of another species, or is “interspecies”? Of course not. We recognize that the child suffers from some sort of disorder—some disruption in development involving, say, chromosomes or an event in utero. Note that we’re engaged in counterfactual reasoning. We infer that the newborn *would* have had two legs except for some event or abnormality that prevented this from happening.

We can learn to reason this way over time if we encounter enough organisms to discern the basic pattern, or if we study biology. For most adults, this way of thinking is common sense, or what philosopher Michael Polanyi called “tacit knowledge.” That is, we understand the basic contours of sex and how it works in the world, even if we have a hard time explaining the chain of reasoning and definitions involved.

### **Normal vs. Abnormal Development**

Some might claim that the distinction between “normal” and “abnormal” is prejudicial, or that it represents an incursion of sectarian philosophy into science. This is false. One *might* view these categories, say, in terms of natures conceived along Aristotelian lines. Others may understand the distinction statistically, in terms of sexual selection, through a combination of these views, or in some other way. But whatever one’s philosophical or theoretical framework, it’s impossible to get very far in describing biological reality without relying on the distinction between normal and abnormal. This is true whether one is a rancher with only a

high-school education, a physician with an MD, or a developmental biologist with a PhD.

Is it special pleading to appeal to what is “normal” for disorders of sexual development? Not at all. It’s how we understand function and development in all organisms—including sex. We know from observation, analysis, and well-confirmed theory that humans are mammals (class: Mammalia), and that sex in mammals is binary. That means there are two and only two types of gametes and corresponding body structures. One of each gamete is needed for reproduction.

Moreover, under normal development in all placental mammals, including humans, a male has XY chromosomes, and he will develop and at some point have testes, a prostate, and a penis. A female, under normal development, has XX chromosomes, and she will develop and at some point have a uterus, ovaries, a cervix, and a vagina. Barring a disorder or disruption, a female can carry, give birth to, and nurse offspring at some point during her life cycle. A male cannot. Males and females also differ in the prevalence of hormones such as testosterone and estrogen, respectively, and develop distinct secondary anatomical differences under the influence of these hormones, especially during puberty.

This is why, in almost all cases, the presence of such features is sufficient to conclude that a newborn is either male or female. Sex in almost all cases is easily observed, not “assigned.” But what about the rare exceptions? What happens if a newborn lacks some secondary sex characteristic—such as a penis—or has ambiguous genitalia, or is found (using much more recent techniques) to have a chromosomal anomaly?

As mentioned above, we would not, and should not, conclude that the child is not a human, or has no sex, or is some third sex. In most cases, we can with a bit more investigation determine that the child is male or female, and so *would* have the usual features of that sex [except for a disorder](#) that disrupted normal development.

Even if we could not determine the sex of an individual, we would treat this as an epistemic limit. We would not, or at least should not, treat such a person as a member of a third sex, or of no sex. And *even if* one were inclined to do that in

such rare cases, this would do nothing to establish the many exotic claims and implications of gender ideology. For instance, it would provide no basis for the claim that a developmentally normal male could *be* a female simply by identifying as one. A transgender or nonbinary gender identity is not the same thing as various disorders of sexual development. In fact, we understand such disorders by reference to normal sexual development.

In sum, current efforts to redefine sex to include “gender identity” would dissolve sex as a stable legal category and create legal chaos. In response, public institutions must shore up their defenses. One key way to do that is by defining sex—including male and female—precisely in law.

### **About the Author**



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