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REFLECTIONS ON LIFE AFTER STONEWALL

Julia Serano: The Science of Gender Is Rarely Simple

By Julia Serano

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As part of our coverage of Pride Month, we asked 10 members of the L.G.B.T.Q. community to reflect on their experiences. Here is one of their responses. Scroll down for more.

Most anti-discrimination policies intended to protect transgender people are centered on gender identity, a term that originated in the field of psychology and that has been used for over half a century to refer to individuals' deeply held understanding of what gender they are. It may or may not align with the sex assigned at birth.

Opponents of transgender rights have increasingly worked to shift conversations and policy language away from gender and toward biological sex.

This effort can be seen in the commentary of anti-L.G.B.T.Q. groups, feminists who exclude trans women and recent Trump administration decisions designed to limit transgender people's access to health care, homeless shelters and other accommodations.

As a trans woman, I find these developments distressing. But they also offend me as a scientist.

I was drawn to science as a child. I remember devouring books about dinosaurs, outer space, geology and evolution. In high school, I took extra science classes as electives. I majored in biology in college, went on to get my Ph.D. and spent 17 years doing research in developmental biology and genetics at the University of California, Berkeley.

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Nonscientists sometimes equate the profession with the pursuit of cold, hard facts. But what actually makes science fascinating is that every answer we find inevitably leads to many more questions. And almost without fail, the more we learn about nature, the more complex it turns out to be.

Gravity seems pretty straightforward: If you drop your keys, they fall to the floor. But to truly understand gravity, you need Einstein's theory of relativity, with all of its counterintuitive ramifications — like the bending of light and slowing down of time near black holes.

Similarly, sex also seems straightforward. Every person superficially appears either female or male. But once we look beneath the surface, things are far more complicated.

While there are tangible biological sex characteristics — chromosomes, reproductive organs, hormones and secondary sex characteristics — they do not always fit neatly into male or female classifications, or align with one another within the same individual, as is the case for intersex people.

Gender expression, gender identity and sexual orientation also vary within individuals across cultures and throughout history.

The Family Research Council, a conservative Christian activist group, recently published an article titled “Trump transgender policy is simple and scientific: ‘Sex’ means biological sex.” The article not only ignores current thinking in the field of biology, but it also falsely implies that science yields simple answers. History shows otherwise, as scientific research has repeatedly revealed nature to be far more diverse and complex than we initially believed.

I was drawn to science as a child because I was curious about how the world works and excited to have my previous presumptions called into question. Those who now invoke science in support of their biases and prejudices do it a grave disservice, and science-minded people everywhere must speak out against it.

Julia Serano is a writer, performer, trans-bi activist and biologist.