

## Gender Fluidity and Hormone Disruptors

Hormone-disrupting chemicals may increase gender dysphoria.

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Polluted groundwater yields ambiguous genitalia for vulnerable species. The modern human environment is replete with substances that mimic sex hormones. Could these chemicals play a role in contemporary gender fluidity?

## Hormone Disruptors

The Age of Chemistry solved all kinds of problems, from flexible new materials to more productive agriculture. The benefits were obtained at the cost of many insidious problems. These include damage to critical ecosystems and a variety of toxicity-related diseases and developmental disorders.

Such issues were highlighted by research showing that polluted ponds could turn male frogs into females. Interestingly, some of the affected frogs were capable of reproducing but produced all male offspring that had the effect of crashing the population,

Such problems are not restricted to wildlife occupying heavily polluted areas. They are also found in humans leading their lives in apparently clean homes and non toxic environments.

One casualty of under-the-radar hormone disruptors is gender development.

Hormone Disruptors and Gender Development

Humans may be be vulnerable to hormone disruptors in ways that resemble the effects on frogs inhabiting polluted wetlands.

The culprits are products, such as cosmetics, that are not ordinarily considered dangerous, or polluting. One example concerns pthalates present in packaging plastics.

Another candidate is pharmaceuticals. This phenomenon emerged in connection with the contraceptive drug diethylstilbesterol. Mothers who were unaware of their pregnancy continued to take the drug. It was found to have masculinizing effects on the brains of female fetuses. The limited evidence available indicated that when they matured, such females were less interested in caring for children and more interested in female romantic partners.

Recent evidence indicates that thalates from plastic and polychlorinated biphenyls (PCBs) are one of many factors predicting gender dysphoria, particularly in the case of male-to-female transgenders.

Chemistry Versus Psychological Openness

Of course the GLABT community rejects the chemical reduction of what is seen as a voluntary choice and is hostile to the notion that a non-binary orientation is somehow the result of a disorder.

Whatever one's opinions about such matters, it is short-sighted to ignore actual environmental threats to brain development.

Gender dysphoria is certainly not reducible to any single cause, chemical or otherwise. Indeed, there are several psychological correlates. These include any kind of trauma experienced during childhood. Another possible factor is abusive parenting.

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Real as these psychological pathways may be, they do not invalidate, or even weaken, the hormone disruptor theory. Indeed, they suggest a similar nexus in brain development. Stress hormones also affect gene expression and have far-reaching consequences for subsequent psychological development in addition to gender identity.

The role of industrial toxins in disrupting human brain development surfaces in reduced IQ scores for children raised in lead-polluted inner cities. Other heavy metal pollutants produce similar consequences.

So, it is worth asking how important hormone disruptors are as a threat to human happiness and fertility.

The Age of Chemistry Versus Health and Reproduction

Researchers are beginning to recognize – based on limited available evidence – that the chemical environment is one of many available explanations for gender dysphoria in modern environments.

On the one hand, this phenomenon is a canary in the coalmine offering yet one more clue that we are endangering our health and well being through incautious acceptance of modern materials that pose endocrine threats.

The semblance of comfort and convenience that products such as plastic wrapping and cosmetics present is the sheep's clothing beneath which major threats to our species may reside. For, if hormone disruptors affect gender orientation and gender dysphoria, we can be sure that they are a clear and present danger to reproduction and the long term viability of our species.

If so, they join a long list of ways that our industrial society is doing us in.



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## About the Author



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