THE GENDER PARADOX: DISCRIMINATION AND DISPARITIES IN THE POSTMODERN ERA
This book was printed using Lulu.com, a self-publishing company for authors. They offer high quality printing at low costs, allowing anyone to print, publish, and sell their own book in a few simple steps. Thanks Lulu!

www.zacharyaelliott.com

© 2020 Zachary A. Elliott. All rights reserved.
ISBN 978-1-79486-870-0
The Gender Paradox is crafted for a specific type of person: it is made for those who have a curious mind never content with the commonplace or the mundane but whose intellectual curiosity and depth of thought extend into the farthest reaches of human knowledge and understanding; to those who are looking for the answers to complex questions which are hidden from view by our illiberal gatekeepers in the media, academia, and politics; and to those who see our society descending into the depths of chaos and confusion. Finally, and perhaps most importantly, this book is crafted for those whose innate uniqueness has been suppressed, marginalized, and alienated by bankrupt ideologies.

The Gender Paradox is a book which champions individual liberty and provides a scientific case for the innate desires, interests, and values of every human being which must be protected from the evils of illiberal forces. The book does this not through arguments from the transient sources of society or culture, but through the more primordial sources of biology which bestow upon each individual innate and priceless qualities. We as a society mess with these qualities at our peril.

Special thanks goes to clinical psychologist and professor of psychology Dr. Jordan B. Peterson, whose exceptional lectures on personality psychology, philosophy, meta-narratives, and individual differences inspired a large portion of this book. The Gender Paradox could not have been put together without his incredible depth of knowledge and insight into the complex topics of sex and gender.
CHAPTERS

The Gender Paradox ................................................................. ix

1 Sex as a Social Construct ...................................................... 1
   • The Social Constructionist Perspective ................................. 3
   • Language Shapes Reality ..................................................... 7
   • The Argument from Indefinite Variation .............................. 10
   • Sex is Subjective .............................................................. 17

2 Philosophy of Gender ............................................................ 23
   • The Blank Slate ............................................................... 28
   • Gender as a Social Construct ............................................. 32
   • Constructing Gender ‘Essentialness’ .................................. 38

3 The Postmodern Tyranny ....................................................... 55
   • The Theory of Rejecting Theories .................................. 56
   • Paradoxes of Postmodernism ......................................... 70
   • The Truth about Hierarchies ............................................ 72

4 Discrimination and Disparities ............................................. 77
   • Gender Inequality in Liberal Democracies ....................... 80
   • For Every 100 Girls......................................................... 87
   • The Lie of Equity ........................................................... 90

5 Nature as Formwork ............................................................ 97
   • Human Universals ......................................................... 100
   • Dangers of Blank Slate Ideology ................................... 102

6 Exploring Gender Differences ............................................ 107
   • Sex and Gender as Dials ................................................. 111
   • Origins of Sex and Gender Differences ......................... 118
   • Three Unique Theories ................................................... 121
   • The Biopsychosocial Model .......................................... 125
7 Sex as a Biological Mechanism .......................................................... 129
  • Sex Determination ........................................................................ 131
  • Effects of Sex Hormones ............................................................... 134
8 Conception to Birth ........................................................................ 143
  • Development of the Zygote ............................................................ 144
  • Prenatal Androgen Exposure ............................................................ 146
  • Psychological Effects of Androgens .................................................. 152
  • Hormones and Socialization ............................................................ 158
9 Development of Gender Identity .................................................... 165
  • Gender Identity as a Blank Slate .................................................... 171
  • Gender Identity as a Biological Reality .......................................... 184
10 Gender Stereotype Pathology .......................................................... 199
  • Origins of Gender Stereotypes .......................................................... 200
  • The Feminine and Masculine Archetypes ......................................... 206
  • When Stereotypes Become Pathological ......................................... 214
11 The Activational Stage ................................................................ 225
  • Three Endocrine Events ................................................................. 226
  • Puberty Initiates Morphological Changes ......................................... 229
  • Activational Effects on the Brain .................................................... 235
  • Identifying Sex Through the Brain .................................................. 250
12 Personality and the Big Five ........................................................... 259
  • What is Personality? ...................................................................... 262
  • How Do We Measure Personality? .................................................. 266
  • Gender Differences in the Big Five .................................................. 272
  • Biopsychosocial Model of Personality .............................................. 286
13 Interests and Inequality ................................................................ 299
  • The Things-People Dimension .......................................................... 303
  • Women in STEM .......................................................................... 310
  • Shattering the Glass Ceiling ............................................................. 314
  • Sex Differences in School and Work ............................................... 317
<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Solving the Gender Paradox</td>
<td>323</td>
</tr>
<tr>
<td></td>
<td>- The Solution: A Biopsychosocial Model</td>
<td>329</td>
</tr>
<tr>
<td></td>
<td>- Universal Sex Differences</td>
<td>336</td>
</tr>
<tr>
<td></td>
<td>- Ideology and the Denial of Science</td>
<td>343</td>
</tr>
<tr>
<td>15</td>
<td>Critiquing Social Constructionism</td>
<td>347</td>
</tr>
<tr>
<td></td>
<td>- Biological Sex is a Social Construct</td>
<td>347</td>
</tr>
<tr>
<td></td>
<td>- Gender is a Social Construct</td>
<td>353</td>
</tr>
<tr>
<td></td>
<td>- Gender Stereotypes are Pathological</td>
<td>357</td>
</tr>
<tr>
<td></td>
<td>- Socialization at Puberty Makes Boys and Girls Different</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>- Gender Differences in Personality Do Not Exist</td>
<td>361</td>
</tr>
<tr>
<td></td>
<td>- Gender Differences in Occupational Preferences Do Not Exist</td>
<td>363</td>
</tr>
<tr>
<td></td>
<td>- Gender Gaps are Indicative of Injustice</td>
<td>364</td>
</tr>
<tr>
<td>16</td>
<td>The Gaslighting Ideology</td>
<td>367</td>
</tr>
<tr>
<td></td>
<td>- J.K. Rowling and the Denial of Sex</td>
<td>370</td>
</tr>
<tr>
<td></td>
<td>- Jordan Peterson and Compelled Speech</td>
<td>385</td>
</tr>
<tr>
<td></td>
<td>- Medicalization of Gender Non-Conformance</td>
<td>400</td>
</tr>
<tr>
<td>17</td>
<td>Beyond Gender</td>
<td>415</td>
</tr>
<tr>
<td></td>
<td>- Paradoxes of Social Constructionism</td>
<td>418</td>
</tr>
<tr>
<td></td>
<td>- Beyond the Blank Slate</td>
<td>421</td>
</tr>
<tr>
<td></td>
<td>- Beyond Ideology</td>
<td>429</td>
</tr>
<tr>
<td>18</td>
<td>Bibliography</td>
<td>439</td>
</tr>
<tr>
<td>19</td>
<td>Glossary</td>
<td>453</td>
</tr>
<tr>
<td>20</td>
<td>Index</td>
<td>469</td>
</tr>
</tbody>
</table>
The Penrose Triangle is an impossibility in its purest form. And yet, such an impossibility is simply an optical illusion. Shift your perspective slightly, and you will find that the sides of the Penrose Triangle don’t actually connect. You can easily build and model this paradox in real life, and with careful consideration of perspective, an illusion of impossibility can be created. However, there is nothing impossible about the Penrose Triangle in its physical form. There is no actual magic, sorcery, or the most advanced form of witchcraft which can make it true, nor is there any mathematical or philosophical way of solving it.

Trying to solve it through any type of mathematical means is impossible. Rather, the solution to the triangle is simple: it’s all about getting the right perspective. A shift up or a shift down. Left or right. With just a slight adjustment in one’s view, the optical illusion of the Penrose Triangle disintegrates into the realm of the possible. Like its other paradoxical cousins such as the Penrose Stairs, such a seemingly impossible object has a simple explanation. Ironically, a similar paradox exists inside the social constructionist theory of gender.

Social constructionist theory states that all differences between boys and girls, men and women, are the result of socialization. Boys and girls become different, not through genetics, hormones, or chromosomes, but through behavioral reinforcement and punishment from parents, teachers, peers, and the media. This socialization continues into adulthood, causing men and women to choose different career paths. In other words, society is
what defines the similarities and differences between the sexes, not biology. Any differences that do exist are linguistic constructions of society which solidify, maintain, and perpetuate binary and heteronormative structures of what it means to be a man or a woman. Therefore, any gender inequality must be the result of socialization forces which interact with stereotypical gender norms that discriminate and suppress behavior deemed inappropriate.

Utilizing this theory of social constructionism throughout the 1970s, 80s, and 90s, social scientists studied the development of gender equality in hundreds of nations around the world. The hypothesis was that if men and women differ because of society, then the more gender-equal a country becomes, the less gender differences there will be.

The level of gender equality across 160 nations was measured using a United Nations metric known as the Gender Inequality Index (GII), which rank orders its member nations through an analysis of four factors: reproductive health, proportion of parliamentary seats occupied by females, the proportion of adult females and males aged 25 years and older with a secondary education, and the labor force participation rate among females and males aged 15 and older. The lower the GII value is in a given country, the more gender-equal the society. A country with a low GII value is therefore a country which has heavily pursued egalitarian policies which encourage and facilitate women’s participation in the economy and the culture.

In 2008, Norway was ranked number one for the GII (lowest score), meaning they were the most gender-equal country out of 160 measured. Other EU Member States were ranked among the top, including Switzerland, Denmark, Sweden, and Finland. Outside of Europe, however, countries such as Yemen, Ethiopia, South Sudan, India, Iraq, Iran, Libya, Egypt, and Afghanistan had some of the worst GII rankings with the highest scores.

1 Gender Inequality Index (GII). United Nations Development Programme, Human Development Reports.
Yet throughout the many decades of GII scores, something strange was happening. As countries became more egalitarian, adopting policies which encouraged and facilitated women’s participation in the economy and society, the differences between men and women didn’t minimize, they didn’t go away, and they didn’t disappear. Paradoxically, the countries with the best GII scores, such as Norway, Finland, and Sweden, had the largest gender differences between men and women. From personality, occupational preferences, and interests, the differences between men and women did not just stay the same; they grew and maximized over the course of four decades. And social scientists were shocked. Such a prediction that gender-equal societies would cause gender differences to minimize was proven not just incorrect, but precisely opposite of the data. Why were the most gender-equal countries seeing the largest differences in men’s and women’s occupational choices, interests, and personalities?

Dismayed at their seemingly impossible findings, social scientists dubbed this phenomenon the Gender Equality Paradox, which is to say, the more gender-equal a society becomes, the more gender differences there will be.² Such a phenomenon seems counter-intuitive to common sense. It seems outside of any reality, truth, or explanation. In a word, it just seems impossible! And yet, such a phenomenon is not impossible. In fact, it’s only impossible if you look at it from the single perspective of socialization. However, if we adjust our perspective just slightly, thereby integrating a variety of causes, then the paradox fades away as easily as the optical illusion in the triangle. So, if we can solve the paradox with a change in perspective, what perspectives can we take?

Social constructionism is one possible perspective, but can it solve the paradox? In college, I took a class called Sociology of Gender, where we studied how gender is socially constructed through behavioral reinforcement and punishment. Taught by Dr. Heather McLaughlin, a professor in sociology and an expert in gendered institutions, the class focused on the influences of socialization for the origins of gender

differences, claiming that gender extends to not just our behavior but our societal institutions. Gender, Dr. McLaughlin taught us, is embedded in the construction of unequal divisions between men and women, the proliferation of images and symbols of the feminine and masculine, the regulation of interpersonal relationships and interactions, the conceptualization of individual identity, and the use of gendered organizational policies.3 Such gendered institutions seem to construct sex and gender differences as ‘innate’ and perpetuate discrimination, injustice, and oppression.

And yet, while such an explanation into the origins of sex and gender differences has truth to it, can it account for all the differences between men and women? And can it account for the existence of the Gender Equality Paradox? If we take the perspective of Dr. McLaughlin, that gender differences are merely the result of sociocultural forces and gendered institutions, it seems as though we would arrive at the same exact perspective from which we began (namely, that gender differences should minimize as countries become more gender-equal), and the paradox would remain unsolved. While the forces of socialization certainly exist and can be powerful, such forces cannot create this paradox on their own. Gender-equal countries such as Norway have the largest gender differences, and these differences have only grown larger throughout the 1980s, 90s, and 2000s despite egalitarian policies which consistently push for the elimination of all gender gaps. Therefore, if men and women only differ due to society, then the paradox seems to become something unsolvable, an impossibility in its purest form.

However, if men and women differ due to a mix of biological and societal factors, then perhaps biology has some role to play in the existence of the paradox. Maybe men’s and women’s innate interests, rather than minimizing, actually maximize once societal forces are diminished. Such an explanation seems to solve the paradox instantly: if you eliminate sociocultural forces which cause gender differences, then you allow for any

---

biological variation to express itself. That may explain why gender differences in gender-unequal countries such as India and Iran are minimal; perhaps people are not given the freedom to express their innate selves. After all, when people are given the freedom to choose their own unique path in life, innate differences between individuals may triumphantly ascend from the depths. But such an explanation seems counter-intuitive and even overly traditional. Do men and women really differ, in part, from biology? Isn’t such a view outdated?

Around the same time I was taking Sociology of Gender, an internal memo was circulating through Google. James Damore, a Google software engineer, was responding to a suggestion by his upper management that opinions on their diversity seminar be expressed. Using contemporary scientific research from the fields of biology, psychology, neuroendocrinology, Damore explained that one reason for women’s underrepresentation in Google’s coding sector may be due to average differences between men and women in interests.4 Because of this, he was fired.

To claim that some differences between men and women may be due to differing interests was blasphemy to social constructionist dogma. It didn’t matter that Damore wrote he wanted to increase women’s representation in coding at Google, and it didn’t matter that he claimed diversity and inclusion should be valued. Both sentiments I agree with! What mattered is that he dared to challenge the social constructionist idea that all differences between men and women are the result of socialization and not innate interests. He was not saying women lack the intelligence, the ability, or the drive to excel in coding. Rather, the claim was that women, on average, tend to choose coding less than men. Such a statement was unacceptable.

And yet, ironically, such a statement solves the Gender Equality Paradox instantly. If average differences in interest exist between men and women, then the paradox can be easily solved. After all, perhaps the differences between men and women are the result of complex factors

which all interact together to form an individual. Perhaps it is not just society which influences our decisions. Maybe biology has some role to play.

And so from this paradox we are left with a question: does biology affect, not just sex, but gender and its behavioral expressions? This is why I wrote this book, to answer such a question. Despite being an architecture student who loves to design the built environment, I’ve been fascinated with understanding human psychology, and more specifically, how differences between individuals manifest themselves. Perhaps such a fascination may help me understand the perspectives of others so that I can design better buildings, or perhaps sharing such perspectives can help others understand their own interests and behaviors. For years I have continually followed the developments in our society: that sex and gender are social constructs, that reality and truth are subjective, and that there is nothing outside of language structures.

Why has a society like ours, a civilization which once championed reason, logic, and scientific inquiry, fallen so far away from our fundamental axioms? Such a question is complex and multifaceted. Such a question requires an understanding of philosophy, biology, and psychology. And such a question is perhaps one of the most important questions our contemporary society can possibly ask. If reason, logic, and scientific inquiry are abandoned, then what are we left with?

My goal for this book is to study the causes of the Gender Equality Paradox (why do gender differences grow larger as a country becomes more gender-equal?). Throughout its pages I will provide a framework for understanding the origins of sex and gender, and as I do, we will explore the composition of sex and gender differences; how these differences develop throughout an individual’s life; how differences between men and women create disparities across society; how gender stereotypes can turn pathological; and how social constructionist theory has become the dominant ideology in our contemporary societies.

I will explore how there are more differences within groups of people than there are between them; how males and females are much more alike than different; how statistically significant differences on the extremes
result in degrees of inequality; and how individuals should be judged as individuals, not as members of a group.

By exploring the complexity of sex and gender, I will provide one of the most holistic arguments for the origins of sex and gender differences, a framework which utilizes many variables from a variety of fields while integrating biological, psychological, and sociocultural theories. Such an interactionist approach is known as the biopsychosocial model.

While we explore how sex and gender differences originate from biopsychosocial factors, we will also explore the pathologies inherent in bankrupt ideologies which relegate boys and girls, men and women, to regressive and illiberal stereotypes. Thus, I hope this book can help others understand the dangers of erasing sex, the pitfalls of viewing all gender differences as social constructions, the pathology of judging individuals through gender stereotypes, and the evils of treating children as malleable blank slates.

I want us to understand why differences between men and women still exist in the most gender-equal societies; I want us to explore how understanding sex and gender differences and similarities is important to our civilization’s physical, psychological, and sexual health; and lastly, and perhaps most importantly, I want us to understand the complexity of sex and gender research so that we can fight inaccurate and oppressive stereotypes which constrain the free expression of individual liberty. Ultimately, I want to explore this sex and gender research not because I wish to constrain individual behavior, but because I wish to champion the rights of all human beings and fight for those who are striving to express their innate interests and desires.

With courage and curiosity, I dare you to venture into the complex frontiers of our society’s scientific discoveries. There may be surprises you’re not ready for, there may be evidence you haven’t seen, and best of all, there may be arguments which challenge your initial assumptions, dismantle your existing judgments, and connect once dark gaps in your knowledge with a light and clarity only evidence and wisdom can provide. Perhaps, at the end of this terrifying and exhilarating adventure, we can finally solve the impossibility of The Gender Paradox.
To argue with a man who has renounced the use and authority of reason, and whose philosophy consists in holding humanity in contempt, is like administering medicine to the dead, or endeavoring to convert an atheist by scripture.

- Thomas Paine
SEX AS A SOCIAL CONSTRUCT

Solving the Gender Paradox requires that we develop a model for sex and gender which integrates a variety of theories and research. By doing so we can gain a more holistic understanding of the complexities of sex and gender, and with this depth of knowledge, we can reveal the properties behind the optical illusion of the Gender Equality Paradox. If gender differences in behavior, interests, and personality grow larger in the most gender-equal countries, as I discussed in the intro, then how can such a phenomenon be explained? Out of all the theories available to us, one theory holds the most provocative explanation for the origins of sex and gender differences. This theory we call social constructionism—the ultimate representative of our culture’s contemporary spirit.

Social constructionism states that differences in behavior, personality, and interests among individuals are the result of learned behaviors. Behavioral reinforcement and punishment, combined with societal expectations, produce the uniqueness of the individual, and with it, the differences between men and women. For the social constructionist who studies sex and gender, boys and girls are not born different but are made different. Socialization, cognitive social learning, and cultural practices shape boys and girls into exhibiting different behaviors, interests, and personalities. Such a theory can be considered the spirit of our age, as the differences between individuals are not viewed as the sum total of biology, psychology, and society, but rather the byproducts of more transient forces of society and culture from which behavior is molded and formed.
Because social constructionists emphasize the influence of sociological factors on an individual over biology and psychology, the categories of both sex and gender are subjected to intensive scrutiny: “Are the categories of sex and gender legitimate?” they ask, “Or are such categories in need of restructuring and redefining?” Perhaps our culture has too narrow a view of sex and gender, and perhaps such definitions of boy and girl, man and woman, and male and female are overly simplistic and highly constraining. Perhaps these binary categories do not fully explain the diversity of human experience. If the binary categories of sex and gender are proven to be scientifically inaccurate and ill-defined, then perhaps we can discover effective methods for their reformation.

For the social constructionist who believes that the binary categories of sex and gender are constructed through societal conditioning, there exists an enticing theory: if socialization alone can account for the differences between men and women, then perhaps the properties of sex and gender can be dismantled. Furthermore, if we can deconstruct the categories of sex and gender and show that these categories are societally-defined, then we can also escape the paradox. For if we can show that gender differences in the most gender-equal nations are the result of treating boys and girls differently, we can also develop ways of fixing these gender gaps in behavior, personality, and interests. After all, if boys and girls are not born different but made different, then socializing them the same should produce less differences. If we can understand how we socialize our boys and girls into gender-typical roles, then perhaps we can eliminate the gender gaps between men and women.

To the social constructionist, such a solution to the Gender Equality Paradox seems promising. Maybe the differences between men and women are socially constructed, and maybe, if we deconstruct the binary category of sex into its societally-defined elements, then perhaps we can show that the Gender Equality Paradox is the result of a society which socializes boys and girls into stereotypical gender roles. Maybe it is this perspective, the social constructionist one, which can most effectively dismantle the optical illusion of sex and gender by showing that male and female, man and woman, and boy and girl are socialized (rather than innate) categories.
THE SOCIAL CONSTRUCTIONIST PERSPECTIVE

We will begin our exploration of the Gender Equality Paradox through the lens of social constructionism. I do this not because I agree with the theory in all aspects, but because social constructionism represents the mainstream view of our culture—a culture which views gender, and even biological sex, as social constructs.

Ironically, it is in the category of biological sex, not gender, where the arguments for social constructionism begin. While it has been accepted for decades that aspects of gender are socially constructed, social constructionists of the 1990s began arguing that biological sex is also a societally-defined binary category through which differences between men and women are constructed and maintained. There is no essence of male or female, the strong social constructionists argue; rather, these categories are socially constructed labels.

According to the social construction theory of sex, no objective criteria exists to reliably sort human beings into the two categories of male and female due to the high variability of traits and the subjectivity of the dividing line. From the formation of the genitalia, levels of sex hormones, development of the gonads (testes and ovaries), and chromosomal variation, there is an indefinite amount of variability across populations. Because of this, sex is theorized to exist on a spectrum, not a male-female binary switch.5

Here the social constructionists understand a critical aspect of biology: that on every level of analysis, variability of individuals exists. However, the very presence of categories and labels seems to eliminate the concept of variability. By their very nature categories seem constraining, discriminatory, and even oppressive. Categories between groups were the status quo not long ago, justifying the institutional and systemic discrimination and oppression of peoples and cultures. Yet beyond this, categories seem inherently biologically determinate. It isn’t difficult to see the ultimate conclusion of the biological essentialism witnessed in the 20th century, as groups of people were arrested, imprisoned, sterilized, and even

5 Brusman, L. (2019). Sex isn’t binary, and we should stop acting like it is. Massive Science.
exterminated by their governments due to traits which were viewed as fixed, innate, and unchanging. Because of the history and context of categories, it makes sense why such a push against them exists on the mainstream in the current culture of our Western societies.

Dismantling the binary category of sex is a major thoroughfare to the elimination of categories as a whole. If innate categories can be eliminated, then perhaps injustice, discrimination, and oppression can be overcome. Medical technology has increasingly elucidated the variability of biological sex characteristics, rendering them near-infinite in their possibilities and ultimately meaningless of categorical description according to gender theorists. This variability is pushed to the philosophical extreme by mainstream social constructionists who reject the concept of biological sex, as I will show.

But first, some clarity on definitions. What exactly is sex? Is it a set of characteristics which exist on a spectrum? Is the dividing line just subjective, as social constructionists claim? Or is there more to it? For the most part, it’s actually rather simple to define biological sex, which is differentiated into two unique reproductive capacities based in two unique gametes:

**Female:** of or denoting the sex that can bear offspring or produce eggs, distinguished biologically by the production of gametes (ova) which can be fertilized by male gametes.

**Male:** of or denoting the sex that produces small, typically motile gametes, especially spermatozoa, with which a female may be fertilized or inseminated to produce offspring.

Despite the fact that sex is defined through those who produce ova (females) and those who produce spermatozoa (males), and that all of the animal kingdom can be differentiated through female gametes and male gametes (even in plants), this has not stopped social constructionists and gender theorists from arguing that biological sex does not exist.
Take, for example, a quote from a professor of Transgender Studies at the University of Toronto, Nicholas Matte, who said, “It is not correct that there is such a thing as biological sex.”

Another example comes from a 2019 video in the pop-culture magazine, Teen Vogue:

“The binary is bullshit,” one woman said, “Sex typically refers to your biological traits: your gonads, your genitalia, your internal sex characteristics, your hormone production, your hormone response, and secondary sex characteristics. Gender is about your identity, your expression, and it’s often based on ideas about sex.”

Another person added, “It’s important we really break down what we are talking about when we talk about sex and gender and if there is something called ‘biological sex’ and what that means.”

One woman added, “This idea that the body is either male or female is totally wrong, and I am living proof of that.”

Another said, “We know that intersex people exist and breakdown this binary. We all have characteristics that are typically male and typically female, and it is really about political choices, social choices, and ideological choices, that we really assign meaning to different parts of our body.”

The video received over 100,000 views on YouTube, and yet, to the dismay of the creators, received only 700 likes to its 17,000 dislikes. Perhaps the dismantling of the male-female category is just not ready to be accepted.

The idea that sex is something fluid, transient, and malleable has also made its way into elementary schools. In the UK, this has quickly entered the mainstream, where the social constructionist theory of sex and gender is taught to ten-year-olds in the context of sex education. For example, one school had two sex educators come in to teach the young students that sex

---

7 (2019). 5 Misconceptions about Sex and Gender. Teen Vogue.
and gender are not just social constructs, but always transient and fluid based on an individual’s internal feelings:

“Gender is how you feel on the inside about whether you’re a boy or girl, a man or a woman, if you’re non-binary, feel like neither, or both. People can also be fluid, feel more like female or more like male based on a different day or time…it’s really individual.”

The educators then asked the kids a question: “Everyone born with a vulva is a girl, true or false?”

Each of the kids shot their paper plate signs into the air, with some answering true and some answering false. According to the sex educators, the kids who answered true were wrong: “Everyone is not exactly sure,” she said, “and that makes sense. But our genitals don’t determine our gender. Some people born with vulvas can be boys.” Having already failed basic social constructionism, the kids put their paper signs back down in defeat. We’ve progressed so fast that boys can now have vulvas and girls can now have penises. If you’re confused, then perhaps you need to be re-educated.

If you think these views are outside of the mainstream, then you are not up-to-date on the recent advancements in gender theory. The idea that politics, society, ideology, and an individual’s feelings are the determining factors of sex is the core of social constructionism and is the key to understanding the philosophy. If biological sex exists on a spectrum like the gender theorists say, then the male-female category is useless; or, in the words of Dr. Heather McLaughlin, professor of sociology: “For strong social constructionists, this means that the categories themselves just don’t work.” For the social constructionist, sex is not something which fits into a binary category, but rather something which is “an ever-changing psychosocial construct created in the symbolic social worlds that allow people

---

to interact with each other. Each individual gives meaning to sexual and self-concepts through the complex interaction of external discourse and social relations with the existing power structure.”

Strong social constructionists do not view the category of male and female as a biological reality, but rather a system which reinforces an existing power structure between individuals. Because of this, the very existence of categories is in direct opposition to the fundamentals of social constructionism. It is true that in the past categories have been used to constrain, discriminate, and oppress, and it is this oppressive nature of the category that social constructionists wish to dismantle. While such a sentiment is understandable, things quickly go off-the-rails when this philosophy is taken to its extreme. And it is here where we arrive at a serious impasse with the structure of reality.

The fundamentals of social constructionism state that humans are born as blank slates, that culture and society construct biological sex, that actions can only be understood in the context of sociocultural forces, that words can be used as tools to shape reality, and that humans can be molded in preferential ways. In other words, anyone can be whatever they want to be. Here an individual’s subjective perception reigns supreme, and the fight to restructure the category of biological sex through the use of language begins.

**LANGUAGE SHAPES REALITY**

Take for example an activist named Cass Clemmer. Cass is a female individual who does not identify with the category of female. Instead, she identifies as transgender. As a newborn, she was examined by a doctor who, deciding based on subjective criteria of sex, assigned her to the female category. Now as an adult, she chooses to assign herself a new identity. In fact, Cass asks people to use they/them pronouns when referring to her. For this discussion, however, we’ll refer to Cass using her assigned female pronouns of she/her. Cass is a period activist who works to dismantle what

---

she views as a categorical error: *that women are the only ones who can get periods.*

In 2017, Cass posted a photo of herself sitting on a bench with menstrual blood soaking her pants. A sign she held read, “Periods are not just for women. #BleedingWhileTrans.” Responding to why she posted the photo of herself bleeding, Cass said: “As an activist in the menstrual health space, I’ve noticed a concerning lack of space and recognition of people who menstruate and do not identify as women, whether that’s because they’re trans, non-binary, and/or intersex.”

She also crafted a coloring book for children featuring Toni the Tampon, a “gender-neutral character meant to illustrate that people of all genders get periods.”

As Cass correctly points out, the idea that only women can get periods is a natural byproduct of the constraining and prejudicial nature of categories. To claim that only women can get periods denies the fact that some people who do not identify as women also get periods, which is to say, an indefinite number of potential identities can menstruate. Such a statement is true, but only *linguistically.* An individual can identify as whatever they prefer, but such an identification does not change one’s biological ability (or inability) to menstruate.

Once again, the idea of category dismantling utilizes language to shape perception. If we assign the label “cat” to the animal known as a *dog,* and then say that “this cat loves to play fetch,” this doesn’t mean that the dog is suddenly a cat. While it’s true we can call a dog by something else, such as “cat,” it does not mean the dog *is* a cat. We can call a table a chair and a chair a table, and yet it does not change their different functions or their material makeup. Yet we can surely see how a fundamental confusion may arise when talking to a friend about your cat who is, in reality, actually a dog. Just because there are an indefinite number of identities or ways to call something does not mean categories do not exist or are in constant flux. At the same time, categories do not preclude the existence of identities, which

---

can exist in the mind of the subject. A person can identify however they like, but the biological category still exists.

The same principle applies when saying men can get periods too. Despite what you identify as, there exists a fundamental reality: an adult who has functioning XX chromosomes, a functioning reproductive system of fallopian tubes, ovaries, and a uterus, will experience menstruation, the monthly discharge of blood and tissue from the inner lining of the uterus through the vagina. People who do not have such internal structures will not experience menstruation. To state such an obvious fact, such as women are the only ones who get periods, is a form of category assignment: some people will fit into the category, while others will not. And this assignment is seen as alienating, marginalizing, and oppressive to those who do not identify with the category of woman but still experience menstruation.

Championing non-conforming identities who exist outside the binary category of male and female is at the core of Cass’s motives:

“I hope people start thinking about menstruation as more of a multidimensional issue, and consider the different ways other marginalized identities intersect with the experience of getting your period. Specifically around trans-identities, I hope that people start remembering to shift their language to be more inclusive, fight for less gendered advertisements/product design, and ensure that menstruators of all genders have access to period products in safe bathrooms.”

You can see how the very idea of category assignment onto biological sex is being challenged here. Menstruation is no longer a univariate category belonging to women. Instead, it’s a multidimensional issue which comprises a variety of intersecting identities, from people who identify as men or even transwomen who identify as women. In the culture, companies are beginning to catch on to this way of thinking. For example, the menstrual hygiene product brand Always took the female symbol off
their packaging to “be inclusive of transgender and non-binary customers.”\textsuperscript{12}

Much of the decision was influenced by users on Twitter such as Jocelyn, who writes, “I understand that you guys love girl positivity but please understand that there are trans-men that get periods, and if you could please do something about the \(♀\) symbol on your pad packaging, I’d be happy. I’d hate to have any trans-males feel dysphoric.”\textsuperscript{13}

The company responded by issuing a statement saying, “We’re committed to diversity and inclusion and are on a continual journey to understand the needs of all of our consumers,” adding that the female symbol will be taken off their products. Similar efforts from other companies and governments have launched trans and non-binary issues into the mainstream as the culture begins to dismantle the supposed subjective and arbitrary category of male and female in place of increasingly fragmented marginalized identities.\textsuperscript{14}

**The Argument from Indefinite Variation**

Here social constructionists champion an important truth: that the categories of biological sex are much more complicated than they appear. We’ll call this the *argument from indefinite variation*. For instance, not all females menstruate, and not all males produce viable sperm. Hormone levels vary within and between the sexes. Chromosomes sometimes constitute themselves in unusual formations, and genitals may not always be fully or normally developed. All of these statements are true, but it is in the analysis where the flaws of social constructionism appear.

Take intersex individuals, for example, who are born with ambiguous genitalia. An intersex male might have an unusually small penis or missing/deformed testes, while an intersex female might have an unusually large clitoris or ambiguous ovaries. These abnormalities are developmental

\textsuperscript{12} Wolfe, E., Krupa, M. (2019). *Always Is Taking The Female Symbol Off Its Packaging To Be Inclusive Of Transgender And Non-binary Customers*. CNN.


\textsuperscript{14} Dragicevic, N. (2018). Canada’s Gender Identity Rights Bill C-16 Explained, *CBC*.  

\textsuperscript{10}
conditions which result from unusual chromosome configurations, hormone insensitivity, and gene expression failure. Some intersex individuals have chromosomal abnormalities such as XXY in Klinefelter’s syndrome, where an extra X creates hormonal and development issues in what would be a typical male. Another condition, called Congenital Adrenal Hyperplasia (CAH), renders an XX individual with completely ambiguous female genitalia, such as an enlarged clitoris and a near-completely fused labia. Reconstruction surgery is often an option for these girls to reform the vulva correctly. Others object to these surgeries as examples of category enforcement, forcing someone to fit into the binary category of male or female. After studying the conditions of intersex individuals, the social constructionist argues that because intersex individuals have unusual genitalia or chromosomes, they constitute new sexes.

These variations of sexual characteristics constitute what social constructionists deem a failure of the biopsychosocial model (a model which, among other things, states that humans can be objectively and reliably sorted into the discrete categories of male and female). While it is true a certain amount of sexual variation exists across human beings, this does not eliminate or dismantle the category of biological sex. While there are disorders of sexual development, such as intersex, this does not mean that intersex individuals have a third gamete, or a third reproductive capacity; they simply fail to develop properly functioning male or female gametes (often times). If disorders of sexual development (DSDs) actually developed into new gametes outside of the male-female category, then it would be correct to say that sex is not binary. But such a third gamete has never existed and will never exist in sexual reproduction. Reproductive capacities are defined through sexual dimorphism (they are split into two). To say that intersex people are not male or female is to 1) deny the biological mechanisms which differentiate males and females in the womb and 2) relegate intersex individuals to the category of ‘Other.’

Thus, when it comes to intersex people, their sexual characteristics often fail to develop into normally functioning male or female reproductive structures. Because of this, they are often developmentally sterile. Though
social constructionists often conflate intersex individuals (who have abnormal sexual development) with trans individuals (who have abnormal gender identities), intersex individuals are usually not transgender and trans individuals are almost always born with healthy male or female gametes. As expected, chromosomal abnormalities and ambiguous genitalia for intersex occur very infrequently, at around 1 in 2000 births, a miniscule 0.05 percent. However, although these individuals have ambiguous genitalia, most of them identify as male or female as they grow older even in the absence of genital surgery. This is not because society socializes them as males or females, but because intersex people are male or female. This shows that while their genitals might not be fully functioning or morphologically normal, their gender identity (their sense of self) almost always aligns with their birth sex, which is always either male or female. For transgender individuals, however, gender identity is a very different issue.

Therefore, elimination of a category such as biological sex must require significant evidence of chromosomal, hormonal, and gamete variation to be warranted. 0.05 percent is not significant. Other estimates, which take into account more than just the intersex population but all types of DSDs, range from 1 to 2 percent of newborns having unusual chromosomal or genital structures. Even if these sexual development variations grew in large numbers, it would still not mean they constitute new sexes. A new gamete type would have to be introduced for such a change in biological sex to be reached. Despite the 98 to 99 percent of the population whose chromosomes, gametes, and hormones are aligned with a typical male or female (including most trans individuals), social constructionists still use the exceedingly rare disorders of sexual development to argue the male and female category is unreliable and defunct.

When confronted with this fact, the social constructionist uses hormone levels as another variable to argue for the dismantling of the biological sex binary. While it is certainly true hormone levels are variable within and between males and females, this does not negate their averages or effects. Typical levels of testosterone in a human male at the age of 18 range from 300 to 1200 nanograms per deciliter, while females tend to have 20 to 75 nanograms per deciliter. This means the typical young adult male has about fifteen times more testosterone than his female counterpart.\textsuperscript{17}

The effects of hormones on the development of the fetus, the neural structure, and the physical attributes of a male or female body cannot be overstated. Prenatal sex hormones differentiate male and female brain structure, bone structure, sexual desire, sexual arousal, mood, cognitive function, blood pressure regulation, motor coordination, sensitivity to pain and stress, ovulation in females, sperm production in males, memory retention, spatial-affinity, interest in people versus things, and many more.\textsuperscript{18}

\textsuperscript{17} (2019). Typical testosterone levels in males and females. Medical News Today.

Different levels of these sex hormones also affect gender identity, sexual orientation, sex-typed activity interests, sex-typed cognitive abilities, sex-related behavior problems, and forms of psychopathology. Sex hormones are so important that transsexuals take these hormones to alter their physiology to more closely resemble the opposite sex, but more on that later. Even if it was true that hormone levels within and between males and females existed on a flat spectrum with no averages, this would still not prove the category of male and female is unreliable and defunct, as a third gamete would have to exist.

Lastly, after the argument for intersex and hormones fails, the social constructionist will point to case studies with near supernatural levels of uniqueness to prove that the male-female dyad is not a reliable category. For example, in 2014, surgeons discovered a womb in a 70 year-old man, a father of four, and a hysterectomy was performed to remove the uterus and fallopian tubes. The surgeons soon discovered the man suffered from a rare form of male pseudo-hermaphroditism, characterized by “the presence of Mullerian duct structures in an otherwise phenotypically, as well as genotypically, normal man.”

Even if this abnormality was commonplace among males, it does not mean such an individual comprises both sexes. The uterus and fallopian tubes inside this phenotypical and genotypical male were non-functional, and no ovary tissue was present.

Another excerpt from the report explains the condition more specifically:

“Male pseudo-hermaphroditism is a condition in which the gonads are testes but the internal genitalia are not completely virilized. It is possible for pseudo-hermaphroditism to be undetected until puberty. PMDS is a rare form of internal male pseudo-hermaphroditism in which Mullerian duct derivatives

---


are seen in men. It was first described by Nilson in 1939. Subsequently, approximately 150 cases have been reported. The exact cause of PMDS is not known, however it is thought to result from a defect of the synthesis or release of MIF, or from defects in the MIF receptor. Defects in the MIF gene lead to the persistence of a uterus and fallopian tube in males. It is likely that remnant Mullerian structures lead to cryptorchidism by hindering the normal testicular descent mechanism.”

A second example of biological hybrids exists in a case study of an older woman with XY cells. She developed normally, underwent spontaneous puberty, reached menarche (first period), menstruated regularly, and had two normal pregnancies. However, because of her chromosomal abnormality of 46-XY, this woman gave birth to a daughter with complete gonadal dysgenesis, meaning her gonads (ovaries) failed to develop properly. In normal individuals, the researchers outline how the process of sexual differentiation is supposed to work:

“Normal sexual differentiation in 46-XY individuals relies on a complex cascade of numerous genes, many of which have yet to be identified. Defects in these genes can cause disorders of sexual development of varying severity.”

Researchers hypothesized that a novel sex-determination gene was at the cause of this abnormality:

“The family pedigree on the mother’s side was notable for the presence of seven individuals over four generations with either sexual ambiguity, infertility, or failure to menstruate, including one individual with documented 45-X/45-XY mixed gonadal dysgenesis. Both the mother and the 46-XY daughter were screened for mutations in a number of genes known to be involved in mammalian testes determination. In all genes screened, the open reading frame was found to be normal. This
suggests that a mutation in a novel sex-determination gene or a gene that predisposes to chromosomal mosaicism may be responsible for the phenotype in this family.”\textsuperscript{21}

Knowing the context and nature of these two case studies, the fact that rare abnormalities exist in no way questions the reliability of the male-female category. Consistent chromosomal makeup, genital development, a male or female reproductive structure, and functioning gametes in 99 percent of the population reliably sorts humans into male and female categories despite the rare occurrence of chromosomal, hormonal, or genital abnormalities.

While there is truth to the idea that there are variations in biological sex characteristics, this does not mean these variations constitute new sexes. To say otherwise is regressive, backwards, and sexist. Just because someone has unusual genitalia, hormones, or chromosomes, does not make them less of a male or female. Thus, social constructionists ignore statistical reality to argue chromosomal and hormonal variation is predominant and widespread, rendering the male-female category unreliable and defunct. This argument is largely motivated by the need to deconstruct the idea of category itself, which in the past, has been used to discriminate and marginalize individuals deemed as “Other.” Once this category has been dismantled, then perhaps societal transformation could occur, or as one article puts it:

“If physicians recognized that implicit in their management of gender is the notion that finally, and always, people construct gender as well as the social systems that are grounded in gender-based concepts, the possibilities for real societal transformations would be unlimited.”\textsuperscript{22}


SEX IS SUBJECTIVE

Beyond this, the social constructionist often takes the philosophy a step further from the arguments of indefinite variation: *biological sex is not something which is determined objectively but rather decided upon by subjective societal standards*. Because of this subjectivity, society is the sole author of what is male and female, not biology. And what is male and female exists on a spectrum, just as gender exists on a spectrum comprising indefinite identities. Therefore, if sex exists on a spectrum and we cannot reliably sort people into male and female, then there must be no male and female outside of society. This implies that sex is malleable, transient, fluid, and forever changing according to the subject, and that the traditional understanding of biological sex as solid, fixed, unmoving, and unchanging according to the object is ‘behind-the-times.’

In the context of this view, it makes sense why Cass Clemmer, our transgender period activist, is such a believer in the idea that all genders can get periods too. Dismantle the oppressive male-female category through the restructuring of language, and you can fundamentally change people’s perception. If you change people’s perception, you can change their actions. And if you change their actions, then you can end discrimination, injustice, and oppression.

Social constructionists have always been skeptical of the existence of category, from which many historical injustices have been based, arguing that continual study of category (or group) differences in the present perpetuates stereotypes, injustice, and discrimination: “Arguments about innate biological differences between the sexes have persisted long past the time they should have been put to rest,” writes the Scientific American editors in 2017.23 As an example of this phenomenon, the Scientific American mentions one of their articles called “Woman and the Wheel,” written in 1895:

“[The article] raised the question of whether women should be allowed to ride bicycles for their physical health. After all, the

---

article concluded, the muscular exertion required is quite different from that needed to operate a sewing machine. An eminent French surgeon who authored the article answered in the affirmative the question he had posed but hastened to add: ‘Even when she is perfectly at home on the wheel, she should remember her sex is not intended by nature for violent muscular exertion…And even when a woman has cautiously prepared herself and has trained for the work, her speed should never be that of an adult man in full muscular vigor.’

Such an article about whether women should ride bicycles due to their ‘weak muscles’ relies, not on actual science, but on an incredible overemphasis of physical sex differences to the point of absurdity, caricature, and sex-based discrimination.

Similarly, research into male and female differences can be sexist, but it depends on how the research is conducted, what its methods are, and how it’s applied. For example, highly controversial research into racial differences has shown subtle differences in average IQ levels between races. These average differences are often the result of culture and the environment, not biology. The nature of this IQ fact is not discriminatory, but the interpretation of it can be. Racists of the past used a mix of science and pseudoscience to justify their conclusions. Therefore, working from the context of historical injustice, social constructionists dismiss the literature of IQ differences as inherently racist. However, research into racial differences is much different than research into sex differences. First of all, and most importantly, racial differences are much more trivial and much more culturally specific than sex differences. For example, the average white man and black man will likely be much more alike in terms of behavior and interests than the average white man and the average black woman. Differences between the sexes are often much larger and culturally universal than differences between races.

This critical fact, however, has not stopped social constructionists from critiquing sex difference research in similar ways that they critique research into racial differences. Although sex difference literature has
worked in tandem with the fields of evolutionary biology, psychology, neurology, and anthropology for over three decades, social constructionists view sex difference research with skepticism, and more specifically, as a tool to solidify the existence of historical injustice against marginalized identities, namely females. This skepticism is predicated on the idea that scientific researchers, mostly men historically, are inherently biased and that this bias is inescapable. Rendering entire fields of research defunct based on potential category bias is a common practice of social constructionists, as articulated by social scientists of the 1980s and 90s:

"Sexist or androcentric background beliefs of scientists cause them to generate sexist theories about women, despite their adherence to ostensibly objective scientific methods."24

If male scientists cannot escape from their inherent bias, and if people cannot be reliably sorted into the categories of male and female, then any sex difference research is not just prejudicial, but perfunctory and useless. Instead of working with the possibility that the male-female category exists objectively, the social constructionist seeks to dismantle it through explanations of indefinite variation, society, culture, discrimination, injustice, and bias. If male and female are just constructed terms, why can’t we construct, mold, and form human beings in the way we see fit?

The idea that biological sex is socially constructed may still seem out of the mainstream, but this has been an integral part of the social constructionist philosophy for decades.25 In 1999, Gender theorist Judith Butler articulated what it meant for the category of sex to be unreliable and subjective, contrasting those who claimed sex and gender were distinct:

“If the immutable character of sex is contested, perhaps this construct called ‘sex’ is as culturally constructed as gender; indeed, perhaps it was always already gender, with the consequence that the distinction between sex and gender turns out to be no distinction at all.”26

The erasure of sex as an objective biological reality foreshadows why a man can become a woman and a woman can become a man, why a man can become pregnant and a woman can impregnate, and why a man can have a vulva and a woman can have a penis; all true statements when the male-female category loses its linguistic meaning.27 Here a person’s sex becomes transient and ephemeral, as soluble as cream or sugar in a cup of coffee (or at least in the mind of the gender theorist). Without the presence of a reliable category, the subjective nature of perception becomes paramount, and we find ourselves in a plurality of perspectives with no objective reference point. We begin to question the nature of objectivity. Perhaps nothing exists outside an individual’s subjective perception and preferences.

Ran to its logical intersectional end, we reach an indefinite number of independent and fragmented identities, with no labels, categories, or groupings. The constraining and prejudicial category of sex is dismantled, and the idea of the individual, with all his or her unique perspectives, thoughts, feelings, and desires, is ironically reinstated as the ultimate identity.28

But there is more to the social constructionist view than the supposed subjectivity of biological sex and the argument from indefinite variation. A historical examination of social constructionism’s development renders a deeper picture as to what’s happening under the surface, from contemporary gender theory and the idea of the blank slate to the postmodern critique of hierarchy and language.