How Male-Biased Design of Jobs, Cities and Health Care Endanger Working Women

Invisible Women: Data Bias in a World Designed for Men, by Caroline Criado Perez (Abrams Press, 2019)

Reviewed by Hailie Dono

Our opening scene is Earth, some of the earliest evidence of tools and clothes begin to appear in the time

about 600,000 years prior. Finally, approximately 300,000 years ago, enter *Homo sapiens*. Or, as we have been

taught to say in a male-biased society, let us welcome "Man." In the study of etymology, Humankind and Man

are considered synonymous and are so interchangeably used that most people would not question it. The other

50% of the world's population, however, is reminded of this concept of the "male default" in every minute

aspect of their everyday lives. The 50% I am referring to is obviously what Simone de Beauvoir would label the

"Other,"

[1] or more commonly termed, women.

Caroline Criado Perez, British feminist writer, broadcaster and activist questions this idea of the "default

man" and its implications on the inequalities between men and women. In her most recent work *Invisible

Women: Data Bias in a World Designed for Men,* Perez takes numerical data, (or the seeming lack thereof,) of

gender inequality and gauges its consequences and costs. Ultimately, Perez reaches the conclusion that there is a

never-ending vicious cycle of data gaps, in which they become both the cause and consequence of systematic

sex discrimination. Leaving the only true solution, and Perez's purpose in writing, to this disparity in sex and

gender data to close another gap: the female representation gap. "When women are involved," she says,

"women do not get forgotten."[2] Perez leaves her audience with the task of garnering more female representation

in the public sphere, that includes the workforce, politics, and science. As it is often to the benefit of all

members of humanity. *Invisible Women* is divided into six parts: daily life, the workplace, design, trips to the

doctor, public life and the impacts of natural disasters on the gender gap. Each section is something any human

being experiences on a day-to-day basis; however, Perez details how these normal experiences are radically,

and sometimes dangerously, different for women. Through the use of what limited data there is and real-life accounts, Perez depicts the harsh reality of the life for an invisible woman.

The first section of Perez's *Invisible Women* discusses the gender gap in travel data and how it results in city planning with a lack of consideration to half its inhabitants: women. Not only do women walk further and longer on average than men but they have more complicated routes as well. This is due to the fact that "women do 75% of the world's unpaid care work and this affects their travel needs.[3] This male prioritization of motorized travel over non-motorized methods, hurts (and ultimately discourages) women's trips to paid work. And, consequently hurts GDP. Perez goes on to discuss the impact of male-bias urban design in terms of sexual harassment. A topic that must be addressed when discussing women and public transit, because by default, public spaces become male spaces. Perez provides a well-rounded image of sexual harassment on public transit around the globe by presenting examples from private buses in Delhi, India to incidents on the London Tube. She eventually reaches the conclusion that "by accounting for women's care responsibilities in urban planning, we make it easier for women to fully engage in the paid workforce,"[4] which benefits people as a whole by contributing to GDP and participating in the labor force. Although, I found Perez's argument overall to be solid, I can't help but wonder about the women of color in urban settings and how much more they suffer low wages, poverty and violent crimes. According to Marieme Daff, women within ethnic minorities constitute approximately 64% of New York City's female population.[5] Thus, there must be disparities between the unpaid work of white women and women of color. So, my question is: how can we be sure we are accounting for *all* women's care responsibilities?

Now that we have discussed getting to paid work, what needs to be discussed is what goes on inside workplaces, as Perez does in her next section "The Workplace." Here, Perez reiterates that: "globally, 75% of unpaid work is done by women,"[6] and from this, points out an imbalance between the amount of unpaid work done by men than by women. And, this unpaid work is frequently ignored since it's something that isn't easily quantified. Yet, it is exactly this unpaid care work that women are penalized for, alongside other things beyond their control such as longer life spans and required early retirements in a workplace that has been built on male needs that are deemed universal. Here Perez calls for the valuing of unpaid work and rebuilding the paid workplace.

Next, Perez tackles the myth of meritocracy—which she argues is really a testament to the power of male default. In actuality, "a belief in meritocracy may be all you need – to introduce bias, that is."[7] And, employer's who claim meritocracy are the ones more likely to hire male applicants over female applicants. Going back to inequalities in the design of the workplace, women are more likely to suffer health problems as a result of men being the default for design. This includes ineffective protective work gear designed with a male measurement and going from toxin exposure at paid work to exposure in unpaid work (i.e. cleaning products). In an effect Perez dubs "the Henry-Higgins Effect," women are increasingly facing injuries at work due to their being atypical, and a divergence from the universal male. Perez finds that the modern workplace does not work for women. And, one solution to this is recognizing and valuing the unpaid labor women do.

Like the last two sections, Perez elaborates on the effect of the gap in data on design in society. In this section she focuses primarily on the impact on technology. The first chapter addresses the plough hypothesis or, the belief that societies that had historically used the plough would be less gender equal than those that hadn't.[8] Due to the fact that the plough evolved in a way that discouraged women from using it and resulted in men dominating agriculture. This designing of equipment based on the average man is a practice continued today. It can be seen in instruments, our phones, and even voice-recognition technology. While technology develops at a rapid pace, women face the same inequalities since the time of the plough; women's needs are systematically ignored throughout the years. And, in the grand scheme of things it makes them poorer, sicker and can even kill them.[9] We ultimately come to the same conclusion: to avoid pitfalls, developers need to consult and interact with actual women.

Now that women are sicker due to a male-bias in design, surely, they can receive help from a professional. In actuality, Perez would argue, this isn't for certain at all. In the odd chance their doctor believes a woman's symptom as opposed to chalking it up to hysteria or the woman isn't misdiagnosed as a result of the lack of data on the female body, there is no guarantee that certain medications will work for women. Why is this? A gap in data. Most subjects in medicinal studies are male, the argument being that women's bodies present far too many variables to be a control in an experiment. Again, women are the atypical, a discrepancy in the universal male. Perez calls for a revolution in not only research but the practice of medicine itself.

The fifth section of *Invisible Women* deals with women's role in the public sector that is, as a resource, consumer and a citizen. The word 'citizen' implies a give and take between society and an individual. In terms of the 'give,' people give back primarily in the form of their productivity. For women, however, more than half their productivity is not evaluated, this all the unpaid care work they provide. But an increasing lack of social infrastructure such as child, decreased productivity that is accounted for, paid work. Thus, Perez maintains that we need to collect more data, from which we can redesign our economy around "reality rather than male-biased confection."[10] Similarly, as consumers, women also have less power as a result of gendered poverty, which is driven by a woman-blind approach to GDP, public spending and taxing methods. Perez reaches the claim that these data gaps are a result of male-dominated governance. And, that "when you exclude half the population from a role in governing itself, you create a gender data gap at the very top."[11]

The sixth and final section dives into a topic that may not touch everyone, but certainly touches a majority of people on this Earth. Here Perez discusses phenomena outside of our control such as natural disasters and war. And, despite how far these events may be from our control, they too perpetuate the gender data gap and hurt women in multiple ways. This section is very much well-rounded as Perez touches upon women in relief efforts following natural disasters, all the way to women within refugee camps and women in pandemics. Her first main purpose in writing this section is to get women representation on relief efforts post-disaster. She believes that the inclusivity of women will bring an important perspective to the table—one that men will typically overlook. One example she gives of this overlooking of women is the building of kitchenless homes which occurred in both Gujarat, India and Sri Lanka following disasters. A blatant disregard for what some would call "women's work." Finally, Perez reaches her second point, which is that, for most women, it isn't the disaster that kills you, but rather what follows. Ineptly designed infrastructure, a lack of social infrastructure, pandemics that disproportionately affect women as they do unpaid care work and of course, sexual assault and domestic violence. While closing the data gap won't magically fix these issues, Perez argues, it will make ignoring the needs of women significantly more difficult.

Ultimately, Perez's writing and ideas most closely coincide with the Political Economy approach to inequality. In terms of inequality, the Political Economy view stresses chronic power imbalances between groups as the predominant cause of inequality. Through the lens of the invisible woman, this power imbalance

obviously lies between the two sexes, those with XX chromosomes, and those with XY. This institutionalized discrimination is seen in nearly every section of Perez's book. In ignorant city planning, women can't get to work. Quid pro quo sexual harassment in the workplace. The male tendency to interrupt women ("manterruptions") and sexual harassment experienced by women in politics. There is an institutionalized male bias as product of the history of the "default male," and the data gap between men and women. Furthermore, in lines with the Political Economy view Perez advocates paid maternity leave and publicly funded childcare, for the reason that it encourages women to return to the labor force and thereby reduces the number of women stuck in a role of unpaid housework and lowers the gender pay gap.

While overall, I found Perez's arguments very compelling, I have one criticism. First, I'd like to say Perez does an amazing job of depicting women of different backgrounds through an abundance of first-hand experiences from countries around the world. However, as she did dedicate a lot of time to women in urban areas, I wanted to hear more about these areas with the frame of how ethnically diverse they are. It comes as no surprise to anyone that women of color are disproportionately affected by violence and poverty in comparison to white women. For that reason, while she briefly touches upon it, I believe Perez should have emphasized not only the data gap between men and women in urban settings but the data gap between women; these women deserved at the very least a chapter to themselves as everyday our world becomes ever more globalized and by proxy even more integrated.

I really appreciate the abundance of personal accounts that accompany the data Perez presents. Not only does it give a face to the numbers, but she gives personal accounts from around the globe; this book is not limited to a single region, or hemisphere, and doesn't appoint one case as the universal truth for women across the globe. Reading Perez's work, as a more analytical and quantitative-minded reader I felt what data Perez could present to be not only enlightening but also made the void of sex and gender data all the greater. Moreover, I had found words and terms that painted a picture of my childhood, of watching my mother. In the part-time work, unpaid care she provided for my father after brain surgery and how most of her paycheck went to my siblings and me. I, a woman myself, had been guilty of undervaluing the unpaid work of women and perpetuating the invisibility of my own sex. Promptly after finishing my reading, I dropped it in her lap at the family desktop where she electronically paid her bills.

"Read it," I said, "it's about you."

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NOTES

[1] In her primary thesis, Beauvoir makes the claim that women are exclusively referred to juxtaposed against men, thus dubbing them the 'Other,' or the atypical to the default male.

[2] Perez, Caroline Criado. (2019), *Invisible Women: Data Bias in a World Designed for Men,* New York. 318.

[3] Ibid, 30.

[4] Ibid, 66.

[5] Daff, Marieme. "Women of Color Now a Majority in New York City." March 7, 2013. https://womensenews.org/2003/03/women-color-now-majority-new-york-city/.

[6] Perez, 70.

[7] Ibid, 94.

[8] Ibid, 145.

[9] Ibid, 191.

[10] Ibid, 253.

[11] Ibid, 285.