

Book

Making women equally visible

公共空间、日常生活、
科研和工作场所的设计常常
是为男性而设，且缺乏深思
熟虑的设计，结果导致女性
和女孩因此而受损



Caroline Criado Perez is a feminist probably most famous in the UK for successfully campaigning to have a woman depicted on Bank of England notes and a statue of suffragist Millicent Fawcett erected in Parliament Square. Her book *Invisible Women: Exposing Data Bias in a World Designed for Men* describes the avoidable adversities women experience when they inhabit a world designed by default to fit men.

In *Invisible Women*, Criado Perez documents a serious systemic problem: the data gap that exists between the sexes. Public spaces, life, research, and workplaces are designed for men by unthinking design, she argues, and as a result, women and girls lose out. Criado Perez describes—with a pleasingly global perspective—the small slips that result in enormous inequalities. She homes in, for example, on the policy in Sweden for snow to be cleared from roads first, and pavements and bicycle paths last. But when council officials investigated, they found that it was women who tended to “trip chain”—ie, make linked journeys by foot or bike to their working and caring responsibilities—and were therefore being disadvantaged. “They didn’t deliberately set out to exclude women”, Criado Perez writes: “They just didn’t think about them”. And when women are less obviously women—through the use of “blind” recruitment for tech industry interviews—more were selected. Unconscious biases were discovered and put right through thoughtful interventions.

“Demand evidence and think critically” is my working mantra. As a gender critical feminist, I want socially and politically constructed restrictive gender norms to be abolished, with individuals free to act as they wish, without the shackles of gendered

expectations. In the meantime, social structures, including the structures charged with delivering our health care, need both the evidence and the critical thinking to ensure that sex-based discrimination is not happening by default.

Criado Perez has it right: **system problems need a system solution.** When health professionals, policy

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makers, planners, and politicians think about how we do things, we need to consider the difference that gendered expectations and sex makes—whether biological, like reproduction and female patterns of disease, or socially gendered roles, such as caregiving—because disadvantage can be thoughtfully designed out.

So, as Criado Perez relates, in Vienna, Austria, officials who were involved in building new housing “first defined ‘the needs of the people using the space’ and then looked for technical solutions to meet those needs...What this meant was collecting data, specifically sex-disaggregated data, because the ‘people’ this housing was intended to serve were women”. The result was housing with transport, shopping, and health care at hand, with children playing outside in sight of home.

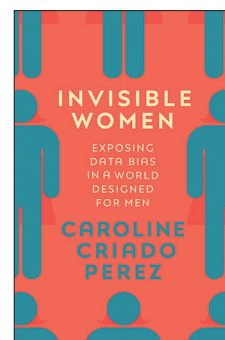
The consequences of not thinking about these needs result in women and girls being left—often literally—exposed to harm. For example, safety

equipment—from boots to body armour—is designed primarily around the male body. More thoughtful policies, such as better design and testing for safety equipment of all shapes and sizes, could help everyone who is not a standard issue male. In another example, Criado Perez describes how Apple designed what they called the “best office building in the world” with “luxury wellness spas—but not a child daycare centre”.

When it comes to medicine, Criado Perez finds much to fault. She describes the medical profession operating as though women were merely a subclass of men “from root to tip...systematically discriminating against women, leaving them chronically misunderstood, mistreated, and misdiagnosed”.

Science and medicine do need system changes to ensure that sex-based differences are accounted for.

That means representative amounts of females in clinical trials, and asking whether sex, socially gendered roles, and factors such as ethnicity and socioeconomic status are adequately considered in practice, for example. This is an important topic, and Criado Perez rightly highlights it. I do have a few quibbles though about the material she refers to in this section of the book. For example, myocardial infarctions are not “traditionally diagnosed” with an angiogram, although they can be; they are mainly diagnosed by symptoms, blood tests, and electrocardiograms. And claims are made for a benefit of aspirin in primary prevention in men, yet in 2014 the US Food and Drug Administration stated that it had “reviewed the available data and does not believe the evidence supports the general use of aspirin for primary prevention of a heart attack or stroke”. A point about primary percutaneous angioplasty



Invisible Women: Exposing Data Bias in a World Designed for Men

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系统性变革以
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being done less on women is explained via a preceding point that women have fewer obstructed arteries on angiogram. These differences are important but need to be contextualised. Criado Perez argues, correctly, that, because women are less likely to get chest pain with myocardial infarction, it is “extremely concerning that current NHS [National Health Service] guidelines specify ‘acute cardiac sounding chest pain’ as part of the criteria for a patient being referred for primary percutaneous coronary interventions”, but cites a document which recommends referral for patients with “symptoms compatible” with myocardial infarction and relevant electrocardiogram changes—ie, not just chest pain.

Criado Perez makes better points when asking whether troponin is a good enough test for women suspected of having a myocardial infarction and whether thresholds to diagnose need to be sex based. Across medical research we need fair tests by ensuring that women are well represented in trials capable of proving that expected benefits are realised. In driving such change, we do need to think critically. For example, Sprout Pharmaceuticals sought to make a new market out of women with supposedly low sexual

desire. The marketing and poor quality evidence that accompanied this effort troubles me more than the fact that they tested the effect of alcohol with their product on male mice only, as Criado Perez describes. She also writes about how sildenafil was investigated as a potential treatment for dysmenorrhoea and notes “imagine my joy when I read about a 2013 study that seemed to have found a cure”. “But what if the trial had included women?”, she asks, writing “The outcome of the 2013 study is suggestive. The trial had to be stopped because the funding ran out, meaning the researchers did not meet their sample size and therefore could not confirm the primary hypothesis. They called for ‘larger scale studies of longer duration’...to confirm their findings. These studies have not happened.” But this example could risk offering false hope; the preliminary study of 25 women tested sildenafil against placebo, did not compare standard treatments, and investigated one dose over 4 hours only.

Nevertheless, *Invisible Women* makes excellent points about how biased data are hidden and have pervasive negative impacts on the lives of women and girls. This book also offers two clear warnings for women in medicine.

First, the observation that “fifty years worth of US census data has proven that when women join an industry in high numbers, that industry attracts lower pay and loses ‘prestige’, suggesting that low-paid work chooses women rather than the other way around”. As increasing numbers of women work in medicine, does the government see medicine as fairer game when it comes to making terms and conditions worse? The second point regards performance reviews. In the UK, the NHS’s appraisal system for many doctors includes 360 degree feedback. Whenever I have written about this subject, my inbox usually fills with horror stories, mainly from women, who have been given unexpected and negative feedback, often with very personal and hurtful remarks. Criado Perez notes a US review of performance reviews at technology companies found “women receive negative personality criticism that men simply don’t”. Women are bossy, abrasive, or strident, she finds, but if men are ever described as aggressive, it is deemed a positive trait. On student feedback, “Female professors are penalised if they aren’t deemed sufficiently warm and accessible. However if they are warm and accessible they can be penalised for not appearing authoritative or professional”. The citations come with questions about size and methodology, but one thing is clear: a lack of evidence showing women are not disadvantaged. For it is the system that needs to demonstrate fitness for all our purposes and ensure that sexism is not embedded by thoughtless assumptions. It is crucial that when we build or plan policy, it is done with the needs of both women and men in mind.

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