## Doing the Work

## **ELIZABETH GARBEE**

In the fall of 2019, when I could still be in the same room as my students, we took time out of math class to work on a biography project. In our tiny classroom that morning, my seven sixth-graders sat in a circle on the floor listening to me read a story about Mary Fairfax Somerville, a Scottish mathematician from the late eighteenth century. When the story finished I asked the kids what they thought about this woman and the things she accomplished in her life. One of the boys raised his hand and said, "I

think she would be really inspiring for girls because they could see that they can do math too." Heads nodded in agreement. I called on one of the girls next, and she said, "Why couldn't boys also be inspired by her? Girls aren't the only ones who sometimes have to work harder to be good at math." Why not, indeed? Another boy nodded and said, "Yeah, that makes sense—I never thought about it that way." He's not the only one.

Over the course of this yearlong project, I've had conversations with my middle schoolers about structural racism and intersectional feminism simply by introducing them to the people behind the math we're learning. I don't have to do this. It isn't in the formal curriculum, and none of this will ever show up on their standardized tests. I do it because I'm what you might call a radical feminist math teacher. If the average student learns about mathematicians at all, it is usually the same few white European men who represent only a small fraction of the field's brilliant minds. I teach in a majority-minority school, and I can't stomach the idea of my students going off to high school never having learned about a mathematician who looks like them.

What should be obvious by now is that I don't need to be convinced by a book such as *Data Feminism*. Written by Catherine D'Ignazio and Lauren F. Klein as part literature review, part manifesto, part call to action, the book's chapters serve as an outline of the structures of power throughout American history that have dictated who matters enough to be included in the measures of a society. Data science is a form of power, one that can be used to uphold existing hierarchies or, alternatively, to discover and redress injustices. This choice is inherently a political act.

The authors ask questions such as, how can we use data to remake the world? And how do systems of oppression intersect with one another? In response, they enumerate seven core principles (such as "Rethink binaries and

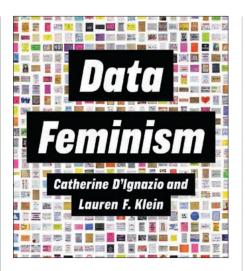
hierarchies") that they believe can help society wield the power of data science to address inequality and oppression. Each of the principles receives its own subsequent chapter. This organizational strategy makes it easy to apply these principles to specific situations, and creates a sort of reverberation of ideas through the whole book.

D'Ignazio and Klein also do a commendable job actually embodying the values of intersectional feminism, which expands traditional feminism to explore how a combination of factors (e.g., gender, class, and race) can contribute to oppression. It's so refreshing to see Kimberlé Crenshaw, the scholar who developed the theory of intersectionality, and Patricia Hill Collins, a social theorist focused on race, class, and gender, cited in a chapter on power, instead of the usual white male suspects (the French social theorist Michel Foucault, for example).

The authors devote an entire section to the feminist scholar Donna Haraway's "situated knowledges," her vision for feminism's role in the philosophy of science, and the philosopher Sandra Harding's "strong objectivity," which critiques the idea of a neutral, value-free perspective. Building off these ideas, D'Ignazio and Klein repeatedly make the case that "the belief that universal objectivity should be our goal is harmful because it's always only partially put into practice."

They go on to argue convincingly that the research enterprise needs more than simple technological fixes in order to wield data for equity and justice. Those technologies will still be envisioned and produced in a society significantly influenced by a history of white supremacy and patriarchy. After all, the authors point out, "a racist society will give you racist science."

This book is nothing if not consistent. Themes are repeated, reapplied, reexamined, and reevaluated as the writers march from chapter to chapter. "March" because this book is heavily inspired by twentieth and twenty-first century activist movements, starting with



## **Data Feminism**

by Catherine D'Ignazio and Lauren F. Klein. Cambridge, MA: The MIT Press, 2020, 328 pp.

the cover: protest signs from the first Women's March, in 2017, tiled against a white background. That design struck me as a metaphor for a world of data structured according to an organizing principle of whiteness.

Here we run into my slight unease with this work, and similar work done by other academics. I get the feeling this book was written for me, and it doesn't escape my notice that the authors look like me. One of this book's great strengths is its self-awareness. The authors state their biases and privileges up front, are forthright about their own limitations and shortfalls, and even include their values and metrics for holding themselves accountable as an appendix. This is something I rarely see in academic publications, and I was truly delighted. And given the earnest tone of genuine solidarity throughout the book, I have a feeling those acknowledgments are genuine and not performative.

Then again, I'm an upper-middleclass white woman living in the nation's capital. As a white woman, I am part of the problem as surely as I am part of the solution. Would I feel the same about these aspects of the book if I were a different ethnicity, or if I came from a different socioeconomic background?

If that were the case, would I find these sorts of affirmations hollow and tiresome? Do I find it refreshing and earnest because it assuages some of my latent white guilt? It's impossible to know for sure. Who gets to decide the value of these kinds of affirmations is strikingly similar to questions of who gets measured and consequently who matters—both questions raised and echoed from chapter to chapter.

What kind of proof do skeptics need to believe that oppression is real? I'm afraid it isn't a copy of Data Feminism.

None of the skeptics in my life would be convinced by D'Ignazio and Klein's exhaustive and lengthy scholarship, even if they did make it past the apparently insurmountable hurdle of reading something whose viewpoint disagrees with their own. After I read the incredibly thorough appendices and closed the back cover, I was left wondering who this book was for. Was it for white female academics such as me to use as inspiration and an organizing principle in our work? Was it meant as a primer to intersectional feminist critique for a newcomer to the field? I could imagine this as a helpful textbook for a graduate school sociology class, for example, but not in the hands of a casual bookstore browser.

What might convince the skeptics is a series of diligent and thoughtful conversations with a loved one, or a new experience of oppression themselves recent occurrences of peaceful white protestors injured as the result of police brutality come to mind. More data and new books don't change societies or dismantle systems of oppression; people do. But data and stories can change those people, open their minds to new possibilities, and inform their imaginations.

When it comes to reform, Data Feminism underscores something those of us doing the work know to be true: the policy-making process is inherently messy, but the best way to make it more manageable and equitable is to ensure the broadest possible participation in the formulation of the problem, as well

as the implementation of the solution. Cognitive and social biases invisibly hamper the earnest and deeply necessary work of bringing about structural and cultural change, but knowing where our individual and collective blind spots are enables us to move forward together with more agility and responsiveness to our communities. The work of reform is painstaking, and brings with it challenges that get to the very core of society. We could do worse for a guidebook along the way.

When school starts again our math biography activities will look a little different. They won't be side projects we do on days we have double periods; they'll be fully integrated into my framing for each new unit, and we'll be focusing on ways of knowing from every continent. In my classroom, I get to decide who and what to measure. I get to decide who matters, just as we all do in our spheres of influence. I'll be keeping my copy of Data Feminism on the shelf behind my desk, as a reminder to keep doing the work.

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