Book Review/ Compte rendu

Magnet, Shoshana Amielle, *When Biometrics Fail: Gender, Race, and the Technology of Identity*. Durham: Duke University Press, 2011, 207 pp. $22.95 Paperback (978-0-8223-5135-1)

Shoshana Magnet uses the famous 1985 National Geographic cover photograph of "the Afghan Girl" to accentuate the complexities of biometric technologies. Despite the fame of the image, little was known about the young woman in the photograph. This changed in 2002 when the photographer returned to Afghanistan to try and identify the woman he had photographed seventeen years previously. Here the new power accorded to biometric technologies became evident. It was not enough for a woman to identify herself as the person in the photograph; biometric technologies were deemed necessary to verify this claim. While the photographer and his team were able to identify her using iris scanning, a great deal of luck was involved, as the technology works best on people with light coloured eyes — such as those of the woman in the photograph — rather than the dark eyes of most people from Afghanistan. Biometric technologies were used here as the ultimate trump card, necessary to verify human accounts of a situation, and requiring the woman in the photograph to remove her veil to allow technology to confirm her identity.

As the title suggests, Magnet's book is about the failure of biometric technologies. Examples of biometric technologies include iris scanners, finger-print scanners, and facial recognition software. For her, this failure revolves around the claim by biometric advocates that these technologies are beneficial as identifying devices because they avoid human bias and produce error-free identifications. Magnet demonstrates how these tools in fact privilege certain groups, hiding discrimination behind a veneer of scientific objectivity. She argues that biometric technologies are rooted in stereotypical understandings of race, gender, and ability. She draws upon publicly available documents to explore the broader implications of these failures and what they mean for how we understand the human body.

Magnet employs some of the theoretical resources in science studies, particularly Donna Haraway's work on bodies as emergent and unstable

entities, to critically interrogate biometric technologies. Magnet questions what purposes they serve, and what notions they reinforce about the human body. In doing so she speaks back to preconceived notions about the standard body and how security officials often conceptualize bodies as an assemblage of parts that can be technologically identified and ultimately commoditized. Consequently, researchers interested in the limitations of surveillance and identification technologies, and how these devices differentially impact racialized and gendered bodies, will find this book particularly useful.

Magnet begins with an accessible overview of the science behind biometric technologies. Police officials and industry representatives find such devices appealing because they can reduce racial profiling, as the technologies are ostensibly neutral. Magnet challenges this assumption by showing how biometric technologies incorporate racial profiling and are built upon a Caucasian, abled body standard. This has led to certain "non-standard" populations, including elderly people, experiencing higher rates of biometric failure – biometric technologies are simply less able to identify individuals from such population groups. For example, iris scanners do not work well on dark eyes, and finger-scan systems have difficulties scanning the fingers of some elderly and Asian populations. So, biometric technologies do not fare well in identifying bodies that do not conform to the dominant standards around which they were conceptualized.

Magnet provides the reader with a description of the rise of the biometrics industry. She presents detailed discussions of situations where these technologies fail in ways that negatively impact marginalized populations. For example, she discusses how biometric technologies first became popular in prisons in the United States. She draws attention to the fact that biometric devices were initially used to control marginalized populations with little ability to resist, and reveals a recurring pattern pertaining to power and resistance. Specifically, there is a power imbalance between those implementing biometric technologies and those upon whom they are imposed. This is a valuable perception, as power dynamics are often overlooked in favour of discussions about the efficacy of surveillant technologies. Following this insight, Magnet points out that institutions such as banks that cater to a more privileged clientele have not implemented such technologies, as such organizations are concerned about alienating often powerful and economically well-off customers.

Officials justified using biometric technologies in prisons on the basis that they reduce the number of human prison staff. Magnet argues that this reduction in staffing is ethically problematic because it results in fewer humans witnessing the suffering of inmates. Given the often

hostile relationship between guards and prisoners, however, she waxes over the fact that guards may be open to seeing prisoners suffer, justifying their pain as deserved. Unfortunately, Magnet does not also explore the opposite side of this coin. She does not consider how biometrics are also used to monitor prison guards; something that would seem to complicate her argument that biometrics are aimed primarily at less powerful groups, particularly given how in the United States in recent years prison guards have emerged as a key political constituency. The fact that biometric technologies are used to regulate both prisoners and prison guards complicates Magnet's argument that biometrics are aimed primarily at economically and socially powerless groups.

Magnet next explores the early introduction of biometric technologies into the United States welfare system in the 1990s. This example again highlights her theme of biometric technologies being used to control populations with a limited ability to resist. Implementing these technologies in the welfare system, however, was not a smooth process; it prompted a large number of complaints, and was fraught with financial difficulties. Justified as a way to reduce welfare fraud, biometric technologies actually proved unable to reduce any frauds other than duplicate-aid fraud, which involves the same individual receiving welfare under more than one identity. In fact this proved to be a miniscule number of fraud cases. Many of the "fraud" cases detected by biometric technologies proved to be simply system errors. In a classic example of unintended consequences, some deserving people stopped using the welfare system due to concerns about their immigration status or other problems not related to fraud.

Magnet also considers how biometric technologies were implemented at border crossings in Canada and the United States. Prior to 9/11 American officials considered Canada to be non-threatening, and thus intensive security measures were not required to secure the border. After 9/11, Canada was re-conceptualized as a potential harbour for terrorists seeking entry into the United States. This shift was in part promoted by the false rumour spread by several American media outlets that some of the 9/11 hijackers entered the United States via Canada. The Canadian and American governments subsequently worked together to secure the border, implementing the Smart Border Declaration Action Plan. The first point in this plan was to introduce biometric technologies at the border. Magnet challenges the claim that using biometric technologies at the border is a neutral practice. Instead, she points out how biometric technologies inspect certain bodies, specifically those of immigrants and refugees, while attempting to limit the inconveniences for business travelers or other powerful groups.

Magnet succeeds in her efforts to show that biometric technologies are not unbiased scientific instruments. She compellingly demonstrates how using biometric technologies subtly racializes security screening beneath the patina of scientific neutrality.

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