DE-BIASING THE HIRING PROCESS THROUGH BEHAVIORAL DESIGN

By Nikoleta Sremac

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INTRODUCTION

While researchers have closely studied the influence of gender bias in the workplace, effective solutions have been difficult to identify and operationalize. A new field of study called behavioral design offers fresh avenues for combating systemic biases affecting race, gender, and other dimensions of identity. In organizations where diversity trainings alone have been unsuccessful in correcting biases, behavioral design offers a promising alternative. Using examples from recent studies and field partnerships at the Harvard Kennedy School, this piece will explore the effectiveness of behavioral design interventions in reducing implicit bias.

THE DAMAGE OF IMPLICIT BIAS

Social psychologist Susan Fiske, a professor at Princeton, developed a theory called the "model of impression formation" that describes the process by which people form impressions of others.[1] The theory boils down to the fact that when we initially meet people, we automatically sort them into social strata using gender, race, and socioeconomic status.[2] Our first impressions are therefore based largely on these categories. This phenomenon is a product of what Daniel Kahneman, a Nobel Prize-winning behavioral economist, refers to as "System 1" thinking—a mode of thought that is fast, emotional, and occurs automatically without conscious thought or deliberation. System 1 thinking uses shorthand and categorization to process new information as easily as possible.[3] An example is the way the brain thinks when it's solving "2+2=?" or displaying disgust at a gruesome image. This mode of thought differs from its slow, effortful, and logical counterpart, System 2, which can be triggered solving "17*14=?" or parallel parking into a tight space. Due to its instinctive and automatic conclusions, System 1 thinking can be credited for implicit biases that occur in our normal everyday judgments. When we are prompted about a receptionist and immediately picture a woman, for instance, our brain has used System 1 thinking to provide a "typical" example of that category based on our assumptions.

Unfortunately, once we form an initial

idea or impression of a person, it is very difficult for our brains to adjust. The brain will instead make every effort to align new information to our previously held belief in order to maintain the preferred internal consistency.[4] This process, known as confirmation bias or confirmatory categorization, has been proven in cases including a simulated hiring process where subjects evaluated candidates for a stereotypical male role in a construction company.[5] Not only did participants consistently favor male candidates, they also unconsciously justified their decisions by using the given information selectively.[6] When asked why they preferred the male candidate, they reported whichever qualification offered him a comparative advantage over the female. When male candidates were more well-educated, they reported that education was the most important factor—but when they were more experienced and less educated than the female candidate, participants stated that experience outweighs education. Very few participants mentioned gender as a factor in their decision-making despite the measured bias in their response.[7]

In addition to stereotypes being descriptive through defining characteristics that we perceive a particular group to hold, they can also be prescriptive, dictating our expectations of how a group should behave and what they are capable of.[8] When we evaluate a person's potential for a job without objective data at hand, stereotypes tend to "fill in the blanks" by projecting our assumptions. For example, one Harvard study found that in an individual assessment, participants consistently hired men over equally or more qualified women for an assignment in mathematics, based on the perception that women are not as skilled at math.[9] The exact opposite effect was observed in hiring women for a verbal

assignment. However, when this experiment was run again using joint-evaluation procedures where male and female candidates were directly compared against each other, the gender gap virtually disappeared.[10] Introducing a simple explicit comparison allowed participants to choose the highest-performing candidate for the job without the influence of biases.[11]

While many lower-level hiring processes already tend to assess multiple candidates simultaneously, most senior-level hires and promotions happen on an individual basis.[12] This often more qualitative assessment allows evaluators to be influenced by gender stereotypes. The presence of bias in hiring C-suite executives or promoting academic faculty to tenureship may be partially responsible for gender gaps at the highest levels of many organizations. For instance, within the S&P 500, women make up 44.7 percent of all employees and almost 40 percent of mid-level managers, but just 5.2 percent of CEOs.[13] Based on the nature of existing hiring processes for senior leadership, System 1 biases have proven difficult to identify and contain.

INTERVENING WITH BEHAVIORAL DESIGN

Behavioral research advises against trying to change biased minds. Rather than attempting to alter human psychology, organizational design interventions aim to "nudge" people towards better behavior. For example, as observed in a study conducted by economists Claudia Goldin and Cecilia Rouse of Harvard and Princeton, using screens to hold "blind" orchestra auditions resulted in the hiring of 50 percent more women.[14] Removing the potential influence of demographic qualities can be used to de-bias evaluative processes that may be adversely affecting women.[15] In addition to leveling the playing field,

removing bias can also increase diversity within workforces, and in turn, improve effectiveness from a business standpoint. A recent McKinsey study found that companies in the top quartile for racial and ethnic diversity are 35 percent more likely to have greater financial returns.[16] There is increasing awareness that diversity is not only a moral imperative, but also a business one as well.

A behavioral approach is appealing in two ways: it is often more effective than raising awareness, and it is less costly and invasive than "shoves" like rules, quotas, and punishments. Gender quotas, for instance, have been observed to have varied or negative impacts on corporate performance, and have been perceived as insulting or unmeritocratic.[17] When political figures like Canadian Prime Minister Justin Trudeau and Irish opposition leader Micheál Martin mandated gender parity within their cabinets, newspapers criticized the quotas. Their efforts were painted as misguided political attempts to garner "feminist credentials," and the opposition argued that qualified men would be passed over due to their gender.[18] While these viewpoints often fail to acknowledge the full impacts of unconscious bias in hiring, gender quotas are often too politically unpalatable to be feasible.

On the less intrusive end of the spectrum, diversity trainings are both costly and lack measurable effects. US companies, in total, invest up to $8 billion a year on diversity trainings, and most have not been evaluated for their effectiveness.[19] Google

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has spent at least $265 million on diversity programs since 2014, yet its rate of female and black employees remained unchanged from 2013 to 2016.[20] Evidence shows that mandating trainings can result in resentment among employees and backlash against minorities, while positive effects fade after just a day or two.[21] One project examined almost 1,000 research studies on reducing prejudice and found little evidence that diversity programs and campaigns have any impact. The project concluded, unsurprisingly, that the effects of these interventions remain unknown and undependable.[22]

Based on numerous cases, existing types of interventions have demonstrably failed. Instead of trying to change our flawed mindsets, behavioral design attempts to work around them. Harvard Kennedy School Professor and Director of the Women and Public Policy Program Iris Bohnet is a pioneer in the field of behavioral design. She specializes in advising private and public organizations around the world on de-biasing interventions. The next section features cases drawn from two sources: her recent book, *What Works: Gender Equality by Design*, and Harvard Kennedy School field course *Behavioral Science for Inclusive Organizations*, taught by Bohnet in the fall of 2017. In the course, students partnered with nine client organizations—including corporate giants like L'Oréal and international institutions like UNICEF—to prescribe simple, effective solutions for the quality, diversity, and inclusion issues faced by their clients.

CASE STUDIES OF SUCCESSFUL BEHAVIORAL DESIGN SOLUTIONS

One of the most-cited symptoms of systemic gender inequality remains the lack of diversity within organizations today. Of the 3 percent of Fortune 500 companies that have released employee demographic

data, 72 percent of senior executives were white and male.[23] Meanwhile, most companies' hiring processes are outdated and have remained unchanged for decades.[24] Behavioral design offers interventions that can remove implicit biases from hiring, ensuring that the best candidates are selected for the job.

As featured in *What Works,* a hiring tech startup called Applied redesigned the hiring process around behavioral design principles. Instead of relying solely on resumes, "work sample tests" simulate typical job assignments and produce results that are used to screen candidates for interviews. The process also eliminates biased language in job descriptions with gender-decoder software, and uses multiple independent evaluators in randomly ordered, anonymous batches. A large-scale A/B test of 170 applicants found that Applied would have passed over 60 percent of the candidates that they eventually hired if they had used resumes alone.[25] This result provides evidence that traditional resume sifts result in biases against candidates, ruling them out for factors unrelated to their ability to do the job.

Another case, featured in a case discussion from the field class, describes the success encountered by the multinational conglomerate Unilever. Using behavioral science, Unilever replaced its hiring process worldwide with an artificial intelligence (AI) system designed to remove elements of potential screening bias.[26] Instead of submitting resumes, candidates are directed to an application called pymetrics, where they are given neuroscience games proven to accurately and objectively predict job performance.[27] Through exhibiting desired traits like altruism and ability to focus, candidates then move on to a recorded video interview process run by HireVue, which also uses AI technology to scan the recordings for keywords, body language, and tone. Since switching to this platform, Unilever has reported that its hiring of people of color increased by 16 percent, and socioeconomic diversity, as measured by universities represented, increased more than 200 percent from 840 to 2,600. The behavioral process improvements resulted in the firm hiring its "most diverse class to date."[28]

The pymetrics application has also increased gender diversity in other client organizations, including a multinational financial services company that experienced a 150 percent increase in women hires following its implementation. The company used the application for the recruitment of undergraduate and MBA candidates for a research analyst role where 80 percent of the typical applicant pool is male. First-round recruiting produced candidates at a ratio of 51 men for every 49 women, and ultimately, the firm hired an equal number of men and women. The company succeeded in maintaining gender equality in hiring for the first time in its history, despite its multi-year efforts to diversify its recruiting.[29]

CONCLUSION

As these success stories continue to accumulate, more organizations should consider behavioral design as an approach to improve diversity in their workforces. Recent media attention on gender-based harassment suggests that we are ready for a national conversation about overcoming workplace biases. The field of behavioral design for gender inclusion shows promise, to the benefit of employees and companies alike.

NOTES

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2   Fiske and Neuberg, "A Continuum of Impression Formation, from Category-Based to Individuating Processes."

3   Daniel Kahneman, *Thinking, Fast and Slow* (New York: Farrar, Straus and Giroux, 2011).

4   Iris Bohnet, *What Works: Gender Equality by Design* (Cambridge, MA: Harvard University Press, 2016), 36.

5   Michael I. Norton et al., "Casuistry and Social Category Bias," *Journal of Personality and Social Psychology* 87, no. 6 (2004): 817-831.

6   Norton et al., "Casuistry and Social Category Bias."

7   Norton et al., "Casuistry and Social Category Bias."

8   Sa-Kiera Hudson, "The Influence of Sexual Orientation and Race on Gender Prescriptive Stereotypes," Harvard Kennedy School of Government's Women and Public Policy Program Seminar Series, 25 January 2018, http://wappphks.podbean.com/e/the-influence-of-sexual-orientation-and-race-on-gender-prescriptive-stereotypes-with-sa-kiera-hudson/. A strong degree of implicit bias has also been correlated with sexist and racist social behavior as well as discrimination in hiring, physician behavior, voting, and other areas. See Bohnet, *What Works*, 39-40.

9   Iris Bohnet et al., "When Performance Trumps Gender Bias: Joint Versus Separate Evaluation," *Management Science* 62, no. 5 (2016): 1225-1234.

10   Bohnet et al., "When Performance Trumps Gender Bias."

11   Bohnet et al., "When Performance Trumps Gender Bias."

12   Bohnet et al., "When Performance Trumps Gender Bias."

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14   Claudia Goldin and Cecilia Rouse, "Orchestrating Impartiality: The Impact Of 'Blind' Auditions On Female Musicians," *The American Economic Review* 90, no. 4 (2000): 715-741.

15   An unusual but important exception to this norm has occurred in cases where organizations adopted the behavioral design recommendation of anonymizing applications but had previously experienced a positive bias towards hiring minority candidates, and therefore hired fewer minorities after the fact. Luc Behaghel et al., "Unintended Effects of Anonymous Résumés," *American Economics Journal: Applied Economics* 7, no. 3 (2015): 1-27.

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