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Lee, R. L. (2022). Interventions to promote diversity in the workplace. Doctoral thesis, Nanyang Technological University, Singapore. https://hdl.handle.net/10356/164249

https://hdl.handle.net/10356/164249

https://doi.org/10.32657/10356/164249

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INTERVENTIONS TO PROMOTE DIVERSITY IN THE WORKPLACE

LEE RUI LING

NANYANG BUSINESS SCHOOL

2022

INTERVENTIONS TO PROMOTE DIVERSITY IN THE WORKPLACE

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Nanyang Business School

A thesis submitted to the Nanyang Technological University in partial fulfillment of the requirement for the degree of Doctor of Philosophy

2022

Statement of Originality

I hereby certify that the work embodied in this thesis is the result of original research, is free of plagiarised materials, and has not been submitted for a higher degree to any other University or Institution.

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Lee Rui Ling

Supervisor Declaration Statement

I have reviewed the content and presentation style of this thesis and declare it is free of plagiarism and of sufficient grammatical clarity to be examined. To the best of my knowledge, the research and writing are those of the candidate with amendments, changes and improvements as suggested by me as the Supervisor. I confirm that the investigations were conducted in accord with the ethics policies and integrity standards of Nanyang Technological University and that the research data are presented honestly and without prejudice.

24 November 2022
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Date

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Jing Zhu

AUTHORSHIP ATTRIBUTION STATEMENT

This thesis contains material from a paper published as part of a symposium at a conference in which I am listed as an author.

Parts of Chapter 3 are published as Lee, R.-L., Feng, Z., & Savani, K. (2022). I Choose You by Default: Using the Default Effect to Reduce Bias in Organizational Hiring. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference, Seattle, WA, United States.

The contributions of the co-authors are as follows:

- I collected the data, prepared the manuscript, and presented the research at the conference.
- Dr Zhiyu Feng and Prof Krishna Savani were involved in the initial conceptualisation of the idea, guided the interpretation of the data, and edited my manuscript drafts.

24 November 2022	
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Date	Lee Rui Ling

ACKNOWLEDGEMENTS

I am truly indebted to everyone who helped to make the completion of this dissertation a reality.

I am immensely beholden to my supervisors, committee members, and examiners, Krishna Savani, Zhu Jing, Chong Sin Hui, Marilyn Ang Uy, and Zou Xi for their patience, generosity, and unwavering support and guidance as I learn to navigate academia. I am also indebted to Filip Lievens, Feng Zhiyu, and Calvin Ng for their invaluable insights and consultation. Furthermore, I am so fortunate to have the support and valuable advice from the LMO faculty and mates.

Special shoutout to Lau Ee Hwee, Dayana Bulchand, Andrea Low, Sylvia Chin, Wendy Tan, Josephine Ng, Karen Barlaan, Quek Bee Hua, and Ada Ong, for your irreplaceable research and administrative assistance.

I am thankful to Keh Junsheng, Terri Tan, Teh Shan Li, and Huang Yi, whose company and listening ears definitely helped to pull me through this arduous and perplexing odyssey.

Last but not the least, I am deeply grateful to my parents who not only gave me the freedom and blessing to venture into unchartered territories, but also provided me a safe harbor and unconditional love.

There are many, many more unique individuals whom I did not list out; please know that each and every one of you have made an indelible mark in my academic journey and I am truly appreciative of your presence.

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Summary

Advances in women's and civil rights, together with increasing globalization, have led to workforces becoming increasingly diverse (Barak & Travis, 2012). However, highly qualified women and racial minority groups continue to face widespread discrimination (Bertrand & Mullainathan, 2004; Goldin, 2014; Moss-Racusin et al., 2012) and are viewed as less desirable compared to White males (Hoyt, 2010; Kunst et al., 2019; Newport & Wilke, 2013). As a result, women and racial minorities continue to be underrepresented in leadership positions and certain fields (Hingorani, 2018; Varma, 2018). Given the negative outcomes associated with discriminatory practices (Qablan & Farmanesh, 2019; Huber et al., 2021), I aim to review and examine interventions that reduce stereotypical bias and promote diversity in the workplace without restricting individuals' choices.

In chapter 1, I conducted a narrative review on diversity initiatives. Despite the proliferation and wide use of diversity initiatives, results on their effectiveness have been mixed (Daniels, 2001; Bezrukova et al., 2012; Chang et al., 2019). Women continue to face inequalities in the workplace (International Labour Organisation, 2008; Lyness & Heilman, 2006) and are underrepresented in leadership positions (LinkedIn, 2022b). This chapter illustrated how diversity initiatives have evolved over the years in the U.S. Adopting the diversity ideology framework (Leslie et al., 2020), I discussed the two types of ideologies that drive diversity practices and noted that none of these approaches are perfect. Therefore, I propose ways in which scholars and practitioners can maximize the effectiveness of current diversity initiatives to manage and achieve diversity goals.

In chapter 2, I built on Liu et al.'s (2022) conceptualization of the universality of leadership potential and examined the universal mindset's effect as an intervention

for promoting diversity in the workplace. Specifically, I examined whether communicating the idea that everyone possesses high leadership potential (i.e., the universal mindset) can help reduce the gender pay gap. Women are not only underrepresentation in leadership roles, but they are also found to be earning less pay than their male counterparts. I argued that if the manager recognizes the potential in the employee, they should be willing to signal their recognition by offering a commensurate amount of pay. Thus, managers who endorse a universal mindset of leadership potential should shift away from gendered stereotypes and offer equitable pay regardless of the employee's gender. I found a link between the endorsement of the universal mindset and the narrowing of the gender pay gap and how a culture's mindset influences an individual's perception of gender disparity in the workplace in that culture.

In chapter 3, I drew a concept from the decision-making literature and introduced it as a choice-architecture intervention to be used in the context of personnel selection. Traditionally, scholars have tried to create interventions to change individual's attitudes (Krishnan et al., 2016). However, research seems to suggest that changing attitudes will not be effective enough to reduce discriminant behaviors that impact the employment outcomes of minority members (Chang et al., 2019; Legault et al., 2011). Nudge paradigms, on the other hand, are designed to bypass attitudes and influence behavior (Thaler & Sunstein, 2009), so I examined whether the default effect can influence individuals to engage in less gender-biased behaviors without changing their attitudes about women. Theory posits that people are more likely to choose default options over non-default options (Samuelson & Zeckhauser, 1988), so in my studies, I set female/racial minority applicants as the default and found that participants were successfully nudged to hire more diverse

candidates. This relationship is moderated by perceived effort, such that the positive association between the default effect and increased diverse hiring is strengthened with increased perceived effort.

The research presented in this thesis documented how concepts and theories from social psychology and decision-making can be used to apply in a management context for a socially responsible purpose, that is, to nudge managers' decisions to help promote diversity at the workplace without restricting their choices.

CHAPTER 1: NARRATIVE REVIEW PAPER ON DIVERSITY INITIATIVES

ABSTRACT

Despite the proliferation of diversity initiatives, their effectiveness has yielded mixed results (Daniels, 2001; Bezrukova et al., 2012; Chang et al., 2019), and women are still severely underrepresented in leadership positions. The conversations on different types of initiatives are largely disparate, and companies tend to only introduce a single approach to address workplace inequality (Morrison, 1992). This narrative review adopts the diversity ideology framework (Leslie et al., 2020) to give a broad overview of the literature on the varying diversity practices in tackling gender issues in an organizational setting. Firstly, I illustrate the evolution of diversity initiatives in the U.S. Next, I discuss the two types of ideologies that drive diversity practices and the strengths and limitations of these practices. Lastly, I suggest how scholars and practitioners can maximize the effectiveness of diversity initiatives to manage and achieve diversity goals (e.g., use a combination of approaches instead of only one).

Keywords: diversity; diversity initiatives; diversity training programs; affirmative action; gender; identity-blind; identity-conscious; organizations; interventions

In recent years many organizations have been implementing diversity initiatives to address the chronic underrepresentation of female employees. Globalization and multinational corporations setting up business in countries worldwide resulted in increased diversity in the workforce and consumers. The need to remain competitive, manage the increasingly diverse workforce, and develop and implement strategies to capture and retain diverse employee and customer bases has led to diversity emerging as a necessary condition for organizations' survival and success (Wentling & Palma-Rivas, 1998).

Implementing practices that would help disadvantaged groups have better workplace experience and outcomes, diversity initiatives aim to achieve one or more of three results: increase the representation of targets, increase inclusion of targets, and reduce career success gaps between targets and non-targets (Leslie, 2019). Some common types of practices include, but are not limited to, affirmative action and diversity training programs.

Affirmative action refers to plans organizations actively take to ensure that individuals are not discriminated against based on their demographic attributes (Crosby et al., 2006). For example, when a company conducts an internal review and realizes that women are underrepresented in managerial roles, it should develop a corrective strategy, be it recruiting female managers or training female employees for the role (Golden et al., 2001). Although there is a recognition of demographic attributes by targeting specific group members, it is used as a means to achieve an end (i.e., to ensure that all are offered equal opportunities). Diversity training programs, on the other hand, are instructional programs that aim to enable constructive intergroup interactions, reduce discrimination and prejudice, and improve participants' motivation, skills, and knowledge to work with others from dissimilar backgrounds (Bezrukova et al., 2016).

Despite more than 75% of Fortune 1000 companies implementing diversity initiatives (Daniels, 2001), there have been mixed reports regarding its effectiveness in the workplace

(Bezrukova et al., 2012; Chang et al., 2019). Only about 5% of companies report that diversity initiatives are helpful to their diversity goals (Sethi et al., 2020). Moreover, despite the common goal to address employment discrimination and assist disadvantaged groups in achieving better workplace outcomes, the literature on affirmative action and diversity training initiatives are largely disparate, and companies tend to only introduce a single approach to address workplace equality (Morrison, 1992).

Given the ubiquity of diversity programs, it is imperative to understand the evolution of diversity initiatives, the ideologies that drive diversity practices, the strengths and limitations of these practices, and how scholars and practitioners can maximize the effectiveness of diversity initiatives to manage and achieve diversity goals.

A few review and meta-analysis papers on diversity initiatives have been published in the recent decade. For example, Devine and Ash (2022) reviewed diversity training used in the fields of organizations, human service providers, and education; Leslie (2019) theorized unintended consequences of diversity initiatives; Bezrukova et al. (2012) conducted a systematic review of diversity training programs that cover a variety of targets (e.g., culture and LGBT); Leslie et al. (2020) meta-analyzed the effects of identity-blind and -conscious diversity ideologies; Bezrukova et al. (2016) meta-analyzed research on diversity training evaluation, which examined specifically at the training context, design, and participants. Devine and Ash (2022) and Bezrukova et al. (2012; 2016) focused exclusively on diversity training programs, whereas Leslie (2019) and Leslie et al. (2020) were able to integrate affirmative action programs by using the diversity ideology as a framework.

A distinction of this narrative review from extant work is to follow in Leslie and colleagues' (2020) footsteps and adopt the diversity ideology framework to give a broad overview of the literature on the varying diversity practices in tackling gender issues in an organizational setting. Additionally, I agree with diversity scholars' findings that a

combination of approaches is a better solution than a standalone approach (Bezrukova et al., 2016; Kalev et al., 2006). Hence, I propose that diversity scholars move away from comparisons of various approaches and instead examine how we can seek complementarity amongst the integration of these practices to maximize the benefits.

Criteria for study inclusion and exclusion

Searches were performed via Google Scholar. Key terms used include "workplace," "corporate," "effective," "diversity programs," "diversity training programs," "diversity initiatives," and "affirmative action." Only peer-reviewed journal articles and books were included in my review. Results displayed after pages 6-7 were excluded. Articles that solely examined topics outside of the workplace (e.g., education) and gender (e.g., disability) were excluded as well. I also conducted a legacy search on the reference list in some of the articles and included relevant articles to my review.

Evolution of diversity initiatives in the U.S.

Over the years, the focus of diversity initiatives has evolved (Anand & Winters, 2008). The focus on diversity was kickstarted by the Title VII of The Civil Rights Act of 1964, which made discrimination in the workplace illegal in the U.S., and policies were created to encourage employers to end discrimination.

Although the movement for women in the 1960s and 70s helped gain legitimacy for female workers, organizations continue to be blatantly discriminant when hiring and managing by implementing strict and intimate workplace requirements. For instance, it was preferable to hire young married women than women who were unmarried because they were allegedly less likely to be flirtatious, and female employees had explicit rules regarding grooming and hygiene (e.g., they were required to wash their hands several times a day and apply fresh lipstick; Sanders, 1943). On top of implementing training and creating policies that prohibited overt forms of sexual discrimination, laws and regulations were also

established to help companies determine the presence of discrimination and enforce solutions to counter it.

In particular, affirmative action policies were created to favor particular groups to redress past injustices and ensure more equitable opportunities for those who have been and still are being discriminated against (Beauchamp, 1998). Starting as an executive order in the United States, affirmative action policies have been implemented in other countries as well (e.g., Malaysia, Guan, 2005; South Korea, Cho & Kwon, 2010; and South Africa, Mathur-Helm, 2005). Practices such as hiring individuals based solely on social categorization at the expense of qualifications (aka "quotas"; Harrison et al., 2006; Beauchamp, 1998), the use of affirmative action programs as a diversity initiative became a heated debate (Harrison et al., 2006). Coupled with the ambiguity and weak enforcement of the law, the policy suffered from further promotion of the stereotype it was trying to get rid of and reverse-discrimination lawsuits (Crosby et al., 2006; Dobbin, 1998; Golden et al., 2001; Pyburn et al., 2008).

In the 1980s, the employee pool was becoming increasingly diverse as more and more women and racial minorities entered the workplace. The assumption held by employers was that these newcomers were less prepared and lacked the necessary skills to be effective managers compared to male employees. The latter is seen as the standard employee (Diehl et al., 2020), and being different is a deficiency that minority employees need to minimize or overcome (Wentling & Palma-Rivas, 1998). Hence, the focus of diversity programs shifted from compliance to assimilation, where female employees were trained to attempt to increase their confidence and self-efficacy.

This implied that training programs were targeted to particular groups of individuals because of underlying stereotypes, not because of objective evaluation of their work capabilities; hence, discrimination was embedded at the structural level, which is counterintuitive to the supposed aims of diversity initiatives. Moreover, assimilation

encourages conformity, which would increase positive social relations for the female employees, but would be counterproductive to increasing organizational performance as the aim of increasing employee pool diversity was to tap into the uniqueness these non-traditional employees bring (Krefting et al., 1997). Since programs during this period focused on helping women assimilate and socialize but not on helping the dominant and minority groups learn how to work together and manage and thrive based on the newfound diversity, companies ended up struggling to hire and maintain a diverse pool of employees.

Additionally, there needed to be a consensus on how diversity is defined and whom the programs should target. In the 1990s, some scholars (Loden & Rosener, 1991) believed that diversity should include dimensions other than gender and race – it should be classified into primary (physical disabilities and age) and secondary (education and communication styles). Under this framework, traditional male employees are also included under the diversity umbrella. However, others believe that this definition of diversity is too broad and dilutes inequality issues that female employees face (Linnehan & Konrad, 1999; Bond & Pyle, 1998). Since non-traditional employees have distinct attributes (e.g., men and women hold different job values; Konrad et al., 1997) and bring about outcomes different from traditional ones (e.g., leadership styles of women and men; Eagly & Johnson, 1990), this group of scholars argues that diversity training programs should help historically underrepresented groups.

Regardless of how they defined diversity, the consensus then was that only certain groups required diversity training, but how to do so was very much up to the organizations. Some managed diversity through work arrangements and mentoring (Cox, 1993), accountability and career development (Morrison, 1992). Others relied on more expansive programs and initiatives, such as communication strategies and relations, and employee participation (Wentling & Palma-Rivas, 2000). The difference in management resulted in a

disorganized training approach and content situation. Approaches ranged from highlighting social justice to sensitivity and appreciation of differences; topics in the programs ranged from more emphasis on gender to work-life balance, contingent on the organization's focus. Furthermore, training took on varying degrees of intensity (Anand & Winters, 2008).

In the new millennium, globalization is more relevant than ever. Employee and customer demographics were changing, and there were progressively more global business endeavors. Moreover, there was intense competition for talent due to a need for more technically trained workers. Employers are beginning to realize that managing demographic workforce changes impacts organizational functioning and competitiveness, making managing diversity an important business imperative (Roberson, 2006). With the published report "Workforce 2000" by the Hudson Institute (Packer & Johnston, 1987), there was a major shift in opinion about the composition of the workforce in the future where employers started to recognize diversity as a competitive advantage, not legal compliance. This compelled companies to go beyond raising awareness of visible and non-visible characteristics and differences (Milliken & Martins, 1996); developing inclusive organizations and diversity-competent leaders became the priority. Thus, programs aim to train participants to value and utilize differences in making better business decisions.

Diversity ideologies and practices

Regardless of the type of diversity initiatives adopted, the decision is mainly influenced by the type of diversity ideology the organization endorses. I cover two main types: identity-blind and identity-conscious.

The first type of diversity ideology, identity-blind ideology, suggests minimizing demographic differences because they are unimportant (Leslie et al., 2020). As such, practices that result from such ideology ignore demographic attributes and only consider qualifications and abilities when making employment decisions (Leslie, 2019). One of the

most common diversity practices resulting from this ideology is affirmative action programs. The motivation is to provide fair and equal opportunities by ensuring that employment decisions made are identical for all individuals (Konrad & Linnehan, 1995).

Such practices are preferred because they provide the illusion of justice and equity, as everyone is treated the same way, and no one explicitly enjoys any preferential treatment (Konrad & Linnehan, 1995; Portocarrero & Carter, 2022; Furtado et al., 2021). However, one shortcoming of such practice is that it ignores challenges that arise due to group membership, such as systematic discrimination (Bond & Pyle, 1998; Kilgour, 2013), prompting some scholars to argue for gender reform at the structural level (e.g., political parties and parliament; Kittilson, 2015). Social inequalities exist where some face more barriers than others. For example, female employees face a host of issues at the workplace, such as a lack of training opportunities and being held to stricter standards when it comes to promotion (International Labour Organisation, 2008; Lyness & Heilman, 2006). Furthermore, since demographic differences are ignored, there is a higher emphasis on meritocracy and achievements (Kulik & Li, 2015). By promoting the belief that if an employee works hard enough, they should naturally be able to reap the rewards. If not, the fault is entirely on them (Bailyn, 2003), which might lead to a failure to recognize discrimination when it occurs. For example, when managers believe their companies to be more meritocratic, they tend to offer rewards to male employees rather than female ones, even though they are equally-qualified (Castilla & Bernard, 2010). Moreover, targeted members have reported that they do not prefer identity-blind approaches (Choi & Rainey, 2014).

Dissatisfaction with identity-blind approaches gave rise to the second type of diversity ideology: identity-conscious ideology, which suggests acknowledging demographic differences because they are important (Leslie et al., 2020). As such, practices that result from such ideology attempt to harness demographic differences and provide additional

support and opportunities to certain groups (Shen et al., 2009; Leslie, 2019). Diversity practices include diversity training programs which range from discrediting stereotypes to mentoring and sponsorship programs—basically any initiatives that increase the saliency of group membership. The motivation is to provide employees with the motivation, skills, and knowledge to work and interact effectively amongst dissimilar others (Pendry et al., 2007).

Although identity-conscious practices are perceived as more effective than identity-blind practices, companies that adopt identity-conscious practices are viewed negatively (Windscheid et al., 2017) because such practices signal unfairness. Targeted members are viewed as benefiting from special treatment and additional resources, causing the non-targets to perceive themselves as victims of discrimination and induce feelings of exclusion (reverse discrimination; Dover et al., 2019; Plaut, 2010). Targeted members who benefit from the initiatives are stigmatized as well. By highlighting group membership, this type of practice reinforces stereotypes (i.e., targets are not as competent and need help to succeed, Leslie, 2019; Dover et al., 2019), and those who do not conform to the stereotype are also affected (Jonsen et al., 2010). Programs that coach participants to acknowledge their prejudice and correct their behavior (Anand & Winters, 2008) might threaten participants' self-esteem and positive self-perceptions, resulting in backlash and negative perceptions towards diversity initiatives. Some research even found that temporary suppression of stereotypes leads to a rebound effect (Macrae et al., 1994), which can ultimately increase prejudice (Legault et al., 2011).

Due to the paradoxical nature of diversity initiatives, these practices can incur unintended consequences (Leslie, 2019). Consequently, evidence of their effectiveness is mixed, and in certain industries, they have been largely ineffective (Kalev et al., 2006; Chang et al., 2019; Holladay et al., 2003). There is a conflation between types of diversity ideologies and intergroup relations outcomes (Leslie et al., 2020). Moreover, the reasons for adoption

and poor implementation further complicate the findings. For instance, sometimes diversity initiatives were selected purely based on legislative requirements or intuition (Baker et al., 2021; Cox & Devine, 2019; Pendry et al., 2007); a manager's interpretation of diversity initiatives and their preferences influence what types of diversity systems are used and implemented (Tetlock et al., 2013; Biernat & Manis, 1994; Foschi, 2000); and how diversity policies are framed can induce threat in employees (Hideg & Ferris, 2014; Klysing et al., 2022).

Solutions

Despite the paradoxical nature of diversity initiatives and mixed empirical results, it is not to say that diversity training programs are not worth the effort. Together with just and fair organizational procedures, when diversity programs and policies are perceived to be implemented effectively, they can beneficially influence important organizational outcomes such as employee job satisfaction (Choi & Rainey, 2014). This suggests not only that diversity management is worthwhile but that there are ways we can approach it to increase its effectiveness.

At the broadest level, organizations should consider introducing an array of measures to manage diversity instead of solely depending on diversity training programs (or any other types of approaches), which many organizations are guilty of (Morrison, 1992). Although the empirical consensus on types of training is clear (e.g., training that is longer, has more varied instruction types, and more women present perform better; Bezrukova et al., 2016), it is also becoming clear that a single approach is insufficient. For example, Kalev and colleagues (2006) found that companies that combine responsibility structures, stereotype, and bias diversity training do better than those that only use one type. Bezrukova et al. (2016) also found that studies that utilized an integrated approach performed better than those which utilized standalone approach. Organizations can consider introducing practices that make up

for the weakness in their diversity ideology. For instance, discrimination might be the most problematic in companies that endorse the identity-blind ideology. Hence, Leslie et al. (2020) recommend that these companies use diversity training programs that focus on behavioral strategies for preventing discrimination.

Besides targeting individuals or demographic groups, companies can consider introducing a more structural-level type of initiative, such as accountability/responsibility practices. Organizations do so by setting up a diversity committee which helps to set and monitor diversity goals. These goals can also act as a criterion in managers' performance evaluations (Leslie, 2019). Increasing responsibility for and monitoring diversity outcomes resolves the subjective interpretation and implementation of diversity initiatives and the lack of accountability should diversity plans not be followed through or accurately. It is important to note that, as with practices that stemmed from identity-blind and -conscious ideologies, accountability/responsibility practices are not without flaws. For instance, grievance structures have been found to hinder discriminated victims from pursuing their grievances and increase the likelihood of filing retaliation claims (Portocarrero & Carter, 2022). Thus, linking back to the previous point, it is not recommended to adopt this as a replacement for other types of practices.

Some scholars encourage the flexible use of different types of diversity practices (Richard et al., 2021). Organizations should not be restricted from being entirely conscious or blind; instead, they should identify weaknesses in their current ideology and practices and adopt initiatives that complement them. For example, the universal mindset proposes that everyone can achieve a high level of a certain attribute without mentioning group membership. This type of identity-blind intervention can overcome issues such as backlash that identity-conscious practices face. Hence, practitioners should be more flexible in using diversity initiatives to maximize the benefits and achieve diversity goals. However, the use of

varying practices would put a strain on organizational resources.

Lastly, scholars can investigate ways to overcome the negative consequences of diversity practices to allow continued use of these interventions. For instance, Hideg and Ferris (2017) found that priming dialectical thinking can mitigate negative reactions to affirmative actions. Hideg and Ferris (2014) found that self-images threats evoked by employment equity policies can be mitigated through a self-affirmation task. Moreover, empirical examinations of affirmative action programs need to be more comprehensive. Harrison et al. (2006) found that not all types of affirmative action programs share the same negative reactions; highly prescriptive ones tend to be more divisive. However, their meta-analysis was limited by the available research on all four types of affirmative action programs. This demonstrates that there are ways to overcome the unintended negative consequences of diversity initiatives, strengthen their usefulness, and allow practitioners to continue to adopt these practices.

Limitations and future research

One of the shortcomings of this paper is the methodology. Compared to other types, such as meta-analyses, narrative reviews are, in nature, less comprehensive and involve a higher degree of author bias. A single search engine is used (i.e., Google Scholar), and a qualitative approach means that the review is imperiled by the author's subjective interpretation. Future reviews adopting a more systematic methodology could improve methodological rigor, thereby allowing for replication and helping to answer specific quantitative questions. For instance, Leslie and colleagues (2020) used the meta-analysis approach to answer the question of the effects identity-blind and -conscious ideologies have on intergroup relations. Moreover, with a pre-defined protocol, their methodology can be replicated.

This paper is also limited by its narrow scope, where I only examined gender diversity

initiatives in the workplace. Given that individuals of different demographic attributes experience varying sensitivity and perspectives (Choi & Rainey, 2014), I narrowed the scope to decrease the likelihood of conflating the discussion with other historically marginalized groups. However, some scholars are more expansive in terms of their scope in their diversity-related research (Homan, 2019; Elliott & Smith, 2004; Hideg & Ferris, 2017), and by including their works, I inevitably end up including research on non-gender-related attributes in my discussion. Furthermore, the ideologies and initiatives I have discussed are not exhaustive. Future studies can broaden the scope by including newer ideologies, practices, and other demographic attributes (e.g., disability) that this paper did not include. Researchers could also better examine which practices have greater external validity (i.e., they can be applied to more than one type of demographic attributes and/or contexts), and this would have a much greater practical contribution in helping companies achieve the same amount of effectiveness yet adopting fewer approaches.

Conclusion

Although diversity training programs have yielded mixed results, they are relevant and effective when used appropriately. History provides evidence that organizations and society are interested and see the need for such interventions; hence, educating practitioners on suitable diversity ideologies and approaches is imperative. To maximize the benefits of diversity initiatives, I propose that organizations introduce more than a single approach (e.g., use practices that complement each other) and be more flexible in using the initiatives. Scholars should continue to improve current diversity training programs and explore ways to mitigate unintended consequences of diversity initiatives.

CHAPTER 2: UNIVERSAL MINDSET AND REDUCING GENDER PAY GAP

ABSTRACT

Extensive research has found that women earn less than their male counterparts even when performing the same job (Hoyt, 2010; Goldin, 2014; Hingorani, 2018). Governments have taken initiatives to reduce the gender pay gap but have only been marginally successful. This paper documents that organizations can invoke a universal mindset to rectify gender inequality. By communicating the idea that everyone possesses high leadership potential, managers could be nudged away from gender stereotypes, thereby reducing the gender pay gap. Study 1 found a significant association between participants' universal mindset about leadership potential and the gender pay gap in a compensation decision-making task. Study 2 found that participants expected a smaller gender pay gap when informed that they were working in a culture in which a universal mindset about leadership potential is prevalent compared to one in which a non-universal mindset is prevalent. Overall, the findings indicate that a universal mindset has the potential to reduce the gender pay gap.

Keywords: diversity; universal mindset; gender pay gap; compensation; decision-making; leadership potential; organization

INTRODUCTION

Women are stereotyped in the workplace as less competent, particularly in the leadership context (Hoyt, 2010). Even though actual gender differences in leadership potential are virtually non-existent (Hyde, 2005), both men and women perceive good leaders as predominantly masculine, rate male employees as more promotable, and prefer male leaders (Powell et al., 2002; Roth et al., 2012; Newport & Wilke, 2013), indicating that both genders hold gendered stereotypes regarding the issue of leadership. Women are held to stricter standards regarding promotion (Lyness & Heilman, 2006), resulting in very few women leaders (Hingorani, 2018; LinkedIn, 2022a). This phenomenon is even more evident in certain industries, such as Manufacturing, where 26% of the workforce comprises women, but only 19% hold leadership roles (LinkedIn, 2022b), despite all occupations are formally open to all genders (Benschop & Verloo, 2011).

Historically, there has been pay inequity as well, where women have been paid less than men even when both hold the same job titles or ranks. Despite governmental efforts (e.g., the Equal Pay Act passed by the U. S. Congress in 1963), research has found that women receive lower pay than men in almost all occupations (Goldin, 2014; Hingorani, 2018), beginning at starting pay (Rothstein, 1997; Lynch, 1993), and the gap remains even when characteristics such as work hours and education are controlled for (Lo Sasso et al., 2011; Paglin & Rufolo, 1990). Furthermore, compensation structures in companies result in a sustained gender pay gap. For example, organizations disproportionately reward employees who can work long hours. This is a disadvantage for women because they are socially expected to pick up a greater workload at home, particularly if they are raising a family (Goldin, 2014).

As a signal of achievement and recognition (Goodman, 1974), pay discrimination at the workplace serves to impede women's career progression, hinder female leaders' well-

being, and even discourage them from fully contributing (Lawler, 1968). Through unequal pay treatment, the organization is telling female employees that they are not valued as much as their male counterparts and that they do not have the potential to be effective leaders. Given the positive effects of gender diversity in the workplace (Bantel & Jackson, 1989; Hambrick et al., 1996; Kaplan et al., 2011), such as an increase in innovation and better governance (Manzoni et al., 2010), and firms' financial performance (Roberson & Park, 2007), organizations need to find ways to address issues of gender pay inequality at the workplace.

One of the ways that organizations tackle gender inequality issues in the workplace is by adopting diversity training programs. Companies commonly use training programs driven by the identity-conscious ideology (versus the identity-blind ideology), such as bias/prejudice reduction interventions. The program typically involves making participants aware that they might possess bias/prejudice against a target group and are taught how to actively reduce them. A major shortcoming of this type of intervention is that highlighting group membership leads to backlash and further stigmatization of the target group (Holladay et al., 2003; Annabi & Lebovitz, 2018; Dover et al., 2019). Furthermore, explicitly highlighting women's underrepresentation might make male managers feel that they are being pressured to hire women, evoking resistance to comply with the program.

Therefore, I propose using the universal mindset of leadership potential as an alternative solution. The universal mindset refers to people's beliefs about the distribution of a certain attribute across the potential (Rattan et al., 2012). I argue that manipulating a perceiver's universal mindset can undercut any underlying beliefs and prejudices regarding gender by taking the perceiver's attention away from thinking about group membership when making an evaluation or decision. Given that past research on the universal mindset of leadership potential has demonstrated that it can reduce gender bias against women in leader

selection (Liu et al., 2022), I posit that if managers can be nudged to believe that everyone has high leadership potential, it can also reduce the gender pay gap. I expect that the universal mindset on leadership potential would work for both male and female participants equally since both genders endorse gendered stereotypes in the leadership domain.

In this essay, I aim to extend the work of Liu et al. (2022) and examine whether the universal mindset of leadership potential can also alleviate other gender inequality issues in the workplace, specifically narrowing the gender pay gap.

THEORY AND HYPOTHESES

Universal/non-universal and fixed-growth mindsets

Mindset, or lay theories, is people's belief about a particular human attribute (Dweck & Yeager, 2019). Representing a regulated and logical system of beliefs, rules, and concepts, research has shown that mindsets are related to the stereotypes, prejudice, and discrimination of individuals (Levy et al., 2006). Researchers have conceptualized a variety of mindsets, such as positive diversity mindset (Homan, 2019), global mindset (Andresen & Bergdolt, 2017), grit mindset (Tang et al., 2019), and entrepreneurial mindset (Daspit et al., 2021).

The most widely studied type of mindset is the fixed-growth mindset (Dweck, 1999), which is driven by the theory of incremental versus entity (Dweck & Leggett, 1988). Previously studied in the context of managers' ratings of subordinates (Heslin et al., 2005), the fixed-growth mindset refers to beliefs about whether people can alter their level of a given attribute over time (i.e., human attributes are either fixed or malleable). This is conceptually distinct from the universal/non-universal mindset, as the latter refers to beliefs about whether people already have the potential to achieve a high level of the relevant attribute. Moreover, the fixed-growth mindset theorizes about individuals' ability to change over time, but the universal/non-universal mindset theorizes the distribution of the particular attribute across the population.

To illustrate, suppose that Yi Ting believes people's leadership potential can improve over time. Would Yi Ting also believe that nearly everyone has the same high leadership potential limit? As highlighted in Figure 1, Yi Ting can believe that both Malik and Maria have room for improvement but can also believe that only Malik has high leadership potential; Maria does not. Conversely, Yi Ting can believe that not only do both Malik and Maria have room for improvement, but both of them have high leadership potential as well, as illustrated in Figure 2.

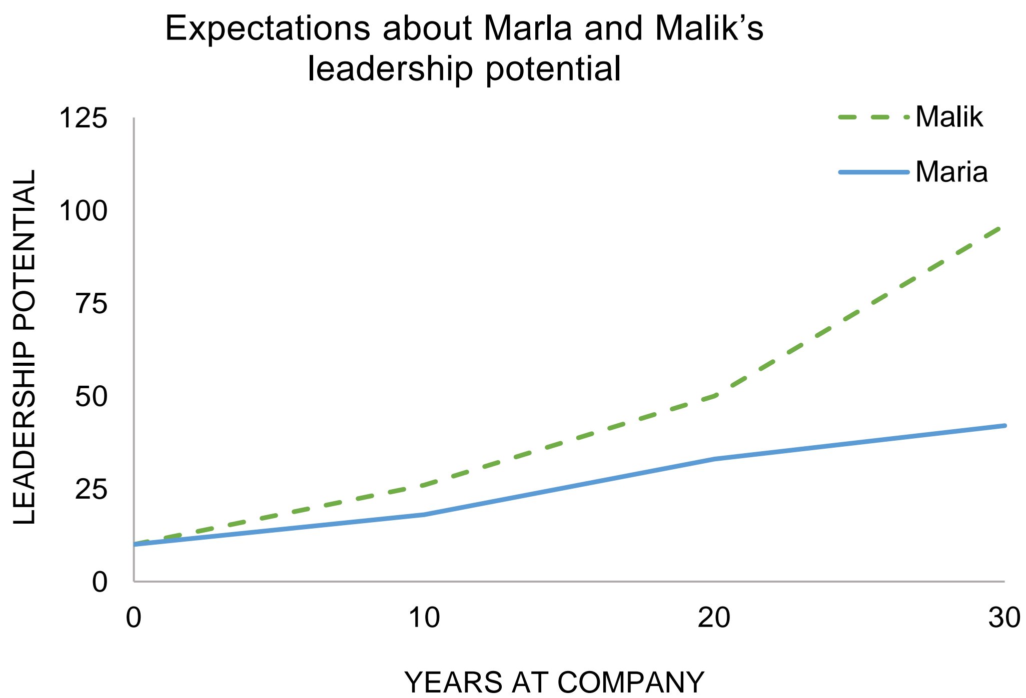

Figure 1. Conceptual model of growth mindset accompanied by the non-universal mindset.

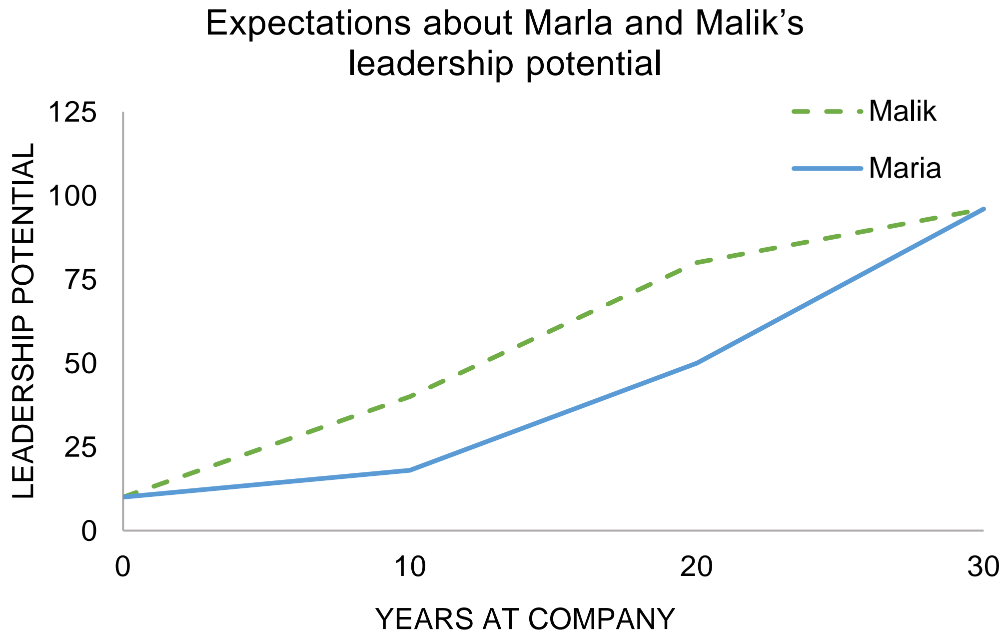

Figure 2. Conceptual model of growth mindset accompanied by the universal mindset.

Initial research on the universal mindset examined the attribute of intelligence. Researchers found a cultural difference such that U.S. Americans were more likely to believe that only some people have the potential to become highly intelligent, while South Asian Indians were more likely to believe that most people have the potential to become highly intelligent (Rattan et al., 2012). Studies also found that manipulating people's beliefs about the distribution of intellectual potential can influence their attitudes and decisions. People who endorsed the universal mindset were more willing to rectify inequality by supporting policies that distribute resources more equally across advantaged and disadvantaged social groups (Rattan et al., 2012). They also viewed education as a fundamental right (Savani et al., 2017).

Authors have also found that the universal mindset's effect is not limited to human attributes such as intelligence. A universal mindset about aptitude in STEM fields can also help promote gender diversity: Namely, women Ph.D. candidates in STEM fields felt a greater sense of belonging to their field when they perceived that their instructors held

universal rather than non-universal mindsets; further female undergraduates in STEM fields earned higher final course grades when they perceived that their instructors held universal rather than non-universal mindsets (Rattan et al., 2018).

One existing type of universal mindset that is relevant to the organization is the universality of leadership potential. Liu et al. (2022) theorized that individuals differ in the degree to which they believe leadership potential is universal or not, which refers to the promise or possibility of an individual is capable of achieving (Silzer & Church, 2010). Specifically, people can believe that most people have high leadership potential (the *universal* mindset) or that only some have high leadership potential (the *nonuniversal* mindset). The authors posited that a universal mindset about leadership potential is cognitively dissonant with gendered stereotypes regarding leadership abilities. Individuals would disregard the stereotypes they hold to achieve cognitive consistency with their universal mindset since their mindset should guide their beliefs. Indeed, they found evidence that a universal mindset about leadership potential could reduce gender bias in evaluations of leader candidates on three dimensions: leadership capability, competence, and agency.

Some might wonder, why not examine a universal mindset of competence? Mindsets are typically defined with reference to latent constructs that are assumed to have a causal effect on behavior, such as intelligence, personality, moral character, and leadership ability (Dweck et al., 1995). Competence is not a latent construct with causal power in the same manner; instead, by definition, competence is something is gradually acquired over time. It is possible that mindsets about intelligence underlie stereotype about women's lack of competence, but this stereotype is generally limited to STEM fields. In contrast, the universal mindset about leadership applies to all fields. Previous research found that the universal mindset about intelligence and the universal mindset about leadership potential were

moderately correlated, $r = .50$, $p < .0001$; a two-factor model fit significantly better, $\chi^2(54) = 119.66$, than a one-factor model, $\chi^2(53) = 354.07$, $\Delta\chi^2(53) = 234.41$, $p < .0001$ (Lau et al., 2022).

Some might then wonder, why not examine a universal mindset of intelligence? Theoretically, if there is a strong stereotype about a given characteristic with reference to a particular group, then the universal mindset about that characteristic should be most effective in reducing discrimination toward that group. There are strong stereotypes about women's ability in STEM fields and women's leadership ability. I focused on the universal mindset about leadership potential because it would apply to gender bias in all fields, including non-STEM fields. Similarly, there are strong stereotypes about ethnic minorities' lack of intelligence, so if I were studying racial bias, I would have focused on the universal mindset about intelligence. Hence, in the context of my research, I decided to examined the universal mindset of perceivers, namely, the effects of the universal mindset of leadership potential on addressing gender pay gap in the workplace.

Pay and universal mindset of leadership potential

Pay is an important topic in organizational behavior that has been studied extensively. Studies have demonstrated the relationship between pay and organizational citizenship behaviors and turnover intentions on a micro-level (Deckop et al., 1999; Vandenberghe et al., 2008) and organizational performance on a macro-level (Brown et al., 2003). Given its significant impact on employee behavior and its influence on firm performance, it is crucial to address the gender pay gap issue because if employees evaluate a pay inequity, they would be motivated to reduce the inequity by acts of leaving the company, reducing their productivity or their quality of work (Lawler, 1968). If certain companies or fields are notorious for inducing pay inequity, this might even deter potential employees from entering (Bernardi et al., 2020).

Pay is also an important signal of achievement and recognition (Goodman, 1974). It represents that the manager recognizes the potential in a job candidate to achieve the goals set out for them and progress further up the ranks; the company is willing to invest and incentivize them to achieve, if not go beyond, their potential. The more the manager believes in the job candidate's potential, the more willing the manager should be to pay them an amount equivalent to the perceived potential. If more than one candidate is perceived to have similar levels of potential, then the manager should give recognition by paying them similarly. Research has shown support for this argument: women receive lesser pay because they are perceived to be less competent, less qualified as managers, and have fewer leadership abilities compared to men (Moss-Racusin et al., 2012; Schein, 2001; Boldry et al., 2001).

In the context of my study, managers who believe that most people have leadership potential (i.e., the *universal mindset*) should see that everyone is worth the investment (i.e., equitable pay) to help them achieve their potential, regardless of gender. A universal mindset about leadership potential is inconsistent with negative stereotypes about women's lack of leadership potential. When people hold conflicting cognitions, they seek to resolve the resulting discomfort by downplaying one of the conflicting cognitions (Festinger, 1957; Gawronski, 2012). Hence, if managers endorse a *universal mindset* about leadership potential, they should shift away from gendered stereotypes claiming that one gender has more leadership potential than the other. The weakened stereotypes should in turn reduce managers' gender bias; specifically, perceiving that female employees have less leadership potential than male employees. Consequently, managers who endorse the *universal mindset* should give everyone similar pay, narrowing the existing gender pay gap.

Hence, I expect that:

Hypothesis 1: Universal mindset is negatively associated with the gender pay gap.

A culture of universal mindset and perceived gender disparity

Numerous studies have identified many contextual factors, including aspects of the workplace climate and the national culture, that shape gender inequality (Beggs, 1995), prompting calls for change in the workplace culture (Xu, 2008). In particular, scholars have found that national cultures have implications for human resource practices and policies such as compensation and appraisals (Schuler & Jackson, 1999). For instance, Grenness (2011) found a positive relationship between Power Distance and the gender pay gap and a negative relationship between Individualism with the gender pay gap, while Black (2001) found positive relationships between indices such as Masculinity and Power Distance and wider earning dispersions across nations. Given its influence on organizations, one can infer an organization's climate from the national culture.

Akin to how pay signals a manager's recognition of an employee's achievement and potential, cultural endorsement of the universal mindset signals to people that the nation as a whole believes that most people have high leadership potential. Thus, irrespective of the personal mindsets individuals within the culture endorse, the norm in the culture is to believe that women and men have similar leadership potential. Suppose women and men are perceived to have similar leadership potential. In that case, they should enjoy equitable treatment at the workplace, such as equal opportunities to climb up the ranks, equitable pay, and both genders to occupy leadership roles proportionally. Thus, individuals should perceive a lower level of gender disparity in workplaces in a country that overall endorses a universal mindset. Conversely, cultural endorsement of a non-universal mindset signals to people that women and men working in organizations located in said country would not enjoy equitable treatment since the nation believes that only some have high leadership potential, justifying unequal treatment. This would lead to individuals expecting more gender disparity (e.g., higher levels of gender pay inequity) in the workplaces of such countries.

Hence, I expect that:

Hypothesis 2: Participants will perceive that there is a lower level of gender disparity in a culture that endorses a *universal mindset* compared to a culture that endorses a *non-universal mindset*.

I obtained informed consent from all participants. The Institutional Review Board of Nanyang Technological University (protocols IRB-2015-07-018 and IRB-2016-05-019) approved this research.

OVERVIEW OF STUDIES

Study 1 (pre-registered) tested the main hypothesis regarding universal/non-universal mindset and compensation: the more individuals believe that everyone has high leadership potential, the more likely they would narrow the gender pay gap by recommending compensation that is more equitable to both genders at the same rank. Study 2 (pre-registered) examined whether individuals perceive there to be a smaller gender pay gap in workplaces operating in a culture where the universal mindset, rather than the non-universal mindset, is prevalent.

STUDY 1: CORRELATION BETWEEN MINDSET AND PAY GAP

This study examined whether a correlation exists between an individual's universal/non-universal mindset and the gender pay gap decisions they make in a promotion task.

Method

The hypotheses, power analysis, sample size, participant inclusion criteria, and methods for this study were pre-registered (https://osf.io/bk4vs?view_only=30509fba4b434733adca8acfc882bfcd).

I conducted a power analysis using the G*Power software (Faul et al., 2007), based on a correlation of .18 between the non-universal mindset about leadership and the gender

pay gap in a pilot study (alpha = .05 one-tailed, power = 80%), which indicated that I need to run 187 participants. So, I advertised a lab study seeking 187 undergraduate students at a large university in Singapore. In response, 102 students completed the survey (M_{Age} = 22.48 years, SD_{Age} = 1.91, four declined to state their age; 60 women, 40 men, two declined to state their gender). Following the pre-registration, participants who provided gibberish responses to an open-ended question asked at the end of the study or were able to guess that the study was looking at gender differences were excluded from the analysis ($N = 4$). They were told to "Please summarize the main point of the statements that you just responded to in this survey. What kinds of questions did you respond to in this survey? In your own words, describe in 2 sentences." Additionally, participants whose Subject ID appeared more than once were excluded from analysis ($N = 2$) because their responses might be affected by prior attempts.

Participants were first asked to complete two scales, one measuring their non-universal mindset about leadership potential (8-item scale; Liu et al., 2022) and another measuring their fixed mindset about leadership potential (3-item scale; Liu et al., 2022). The latter was administered to demonstrate that the fixed-growth mindset is conceptually distinct from the universal/non-universal mindset. Both scales used a 7-point Likert scale, ranging from Strongly Disagree (coded as 1) to Strongly Agree (coded as 7). The scores for both scales were averaged and mean-centered. A sample item of the universal mindset about leadership potential includes "Even in the right environment, not everyone can be an effective leader." ($\alpha = .87$), while a sample item of the fixed mindset about leadership potential includes "People have a certain amount of leadership ability, and they can't really do much to change it." ($\alpha = .90$).

Then, participants were presented with the following scenario:

Imagine you are the Director of Human Resources at STE Engineering. First, you will read a brief description of the company. Then, you will be shown profiles of six

candidates who will be promoted to the V.P. of Engineering. You are tasked with deciding what their salary will be.

They were presented with a brief description of the company, followed by profiles of six candidates (three men, three women). The information provided in the profiles includes the candidate's name, which indicates gender, the title of their job, the sector they work in, recent accomplishments, the reason for promotion, the current pay the candidate is receiving, and the range of current and promotional pay.

To ensure that all candidates are viewed to be equally likely to be promoted, the profiles of the six candidates were pilot tested prior to Study 1 ($N = 606$). Participants were asked to read an introduction of the company, then shown the profiles individually. To ensure neutrality, when participants were presented with the six profiles, the demographic and pay information of the candidates were omitted. Candidates were represented by numbers. Only information regarding their recent accomplishments and reason for promotion were presented. Then, on a 7-point Likert scale ranging from Extremely likely (coded as 1) to Extremely unlikely (coded as 7), participants were asked how likely they were to promote each candidate. The average score participants assigned was 2.29 ($SD = 1.11$). The mean score of the lowest-ranking candidate was 2.12 ($SE = .11$), and the mean score of the highest-ranking candidate was 2.60 ($SE = .14$). Results suggest that the candidates were viewed equally likely to be promoted.

In one condition, the first three profiles were assigned male names and the last three female names; this was reversed in another condition. The average current pay of the male employees was about 5% higher than that of the female employees. To deter participants from giving all candidates the highest possible pay, they were told that their aim is to keep the employees satisfied yet to minimize H.R. expenditure. Participants were asked to indicate how much salary they would offer each candidate after promotion.

Results

I averaged the pay recommended for the male candidates and for the female candidates. As my dependent variable was the gender wage gap, I subtracted the women's average pay from the men's average pay to form the dependent variable. In other words, I am interested in looking at the difference in salary offered to female and male candidates. A pairwise correlation showed a significant, positive relationship between the non-universal mindset and gender pay gap, $r(96) = .31$, $p = .002$. Note that the original pre-promotion gender gap was $21,000. Participants with a more non-universal mindset (1 SD above the mean) had a post-promotion gender gap of $2943.11. In contrast, participants with a more universal mindset (1 SD below the mean) had a post-promotion gender gap of $996.10. However, there was no significant relationship between the fixed mindset and the gender pay gap, $r(96) = .08$, $p = .460$. The partial correlation between non-universal mindset and pay gap, controlling for fixed mindset, is .28, $p = .005$. Thus, Hypothesis 1 is supported.

The means and correlations of the non-universal mindset and fixed mindset scales are $M_{\text{Non-Universal}} = 4.22$, $SD_{\text{Non-Universal}} = 0.77$, $M_{\text{Fixed}} = 3.33$, $SD_{\text{Fixed}} = 0.99$; $r = 0.41$, $p < .001$. A confirmatory factor analysis was conducted to test the discriminant validity of the non-universal mindset and fixed mindset scales. Results indicated that a two-factor model, root mean square error of approximation (RMSEA) = .096, confirmatory fit index (CFI) = .936, $\chi^2(df = 43) = 79.94$, fits better than a one-factor model, RMSEA = .224, CFI = .645, $\chi^2(df = 44) = 249.92$, $\Delta\chi^2(df = 1) = 169.98$, $p < .001$.

Discussion

Study 1 established that the universal/non-universal mindset is positively associated with the gender pay gap; the more individuals believe that everyone has high leadership potential, the narrower the difference in salary offered to female and male candidates. As I used a promotion salary adjustment context in which there was an existing gender pay gap to

begin with, this finding meant that people with a universal mindset were more willing to rectify the existing gender pay gap. As expected, I did not find a significant relationship between the fixed mindset and the gender pay gap, suggesting that the universal/non-universal mindset, and not the fixed mindset, is key to reducing gender inequity in the workplace.

STUDY 2: CULTURE'S MINDSET AND GENDER DISPARITY

This pre-registered study aimed to assess whether individuals perceive a smaller workplace gender pay gap in a culture where most people endorse the universal mindset compared to a culture where most people endorse the non-universal mindset. People's perceptions of the norm in a culture are important because perceived norms are an important driver of people's behaviors (Zou et al., 2009; Cialdini et al., 1990).

Method

The hypotheses, power analysis, sample size, participant inclusion criteria, and methods for this study were pre-registered (https://osf.io/v4ubg?view_only=b593bb83864f46dbb9a5d0425b302e74). In a previous study, I found a correlation of $r = .31$ (equivalent to Cohen's $d = .65$) between individual's universal mindset about leadership (measured as an individual difference) and the gender pay gap. I conducted a power analysis using the G*Power software (Faul et al., 2007), based on $d = .65$, alpha = .05 (one-tailed), and power = 80%. I recruited 106 undergraduate students at a large university in Singapore, and 111 completed the survey ($M_{\text{Age}} = 20.17$ years, $SD_{\text{Age}} = 1.40$, two declined to state their age; 70 women, 40 men, one declined to state their gender). Additionally, participants' whose Subject ID appeared more than once were excluded from analysis ($N = 2$) because prior attempts might affect their responses.

In this study, participants read about two Pacific islands, Solomon and Marshall Islands. I informed participants that the universal mindset was prevalent in one of the islands

and the non-universal mindset in the other. Participants were assigned to either the Solomon Islands – universal / Marshall Islands – non-universal condition, or the Solomon Islands – non-universal / Marshall Islands – universal condition.

After a brief introduction of the first island, the Solomon Islands, participants were told that researchers have conducted a nationally representative survey on what the islanders believe about the nature of leadership and were shown key findings from this survey. Manipulation of the universal/non-universal mindset condition was embedded in the survey findings: If participants were assigned to the condition where the Solomon Islands endorses a *universal mindset*, they would read that:

> *The people of the Solomon Islands believe that everyone has the highest leadership potential. Solomon Islanders think that everyone is gifted—the potential is in all of us to become highly effective leaders; we just have to express it. The people of the Solomon Islands conclude that leadership potential is widespread. Solomon Islanders know that everyone has the potential to become a great leader. They expect that nearly everyone has the potential to become a highly effective leader, provided that they receive some leadership experience, have leadership opportunities, and strongly desire to become a leader. Solomon Islanders feel that it is impossible to tell apart great leaders from non-leaders because everyone has the same high leadership potential.*

Conversely, if they were assigned to the condition where the Solomon Islands endorses a *non-universal mindset*, they would read that:

> *The people of the Solomon Islands believe that only some have the highest leadership potential. Solomon Islanders conclude that some people simply do not have the potential to become highly effective leaders. The people of the Solomon Islands expect that not everyone can become a leader – they believe that even if you get the right*

experiences, if you don't have high leadership potential in you, you cannot become a leader. Solomon Islanders know that only some have the potential to become a great leader. They think that not everyone is gifted—the potential is in some of us to become highly effective leaders; it is not there in others. Solomon Islanders feel that individuals who rise to become great leaders are the rare individuals with high leadership potential.

After reading about the key findings from the survey, participants were asked about their perceived gender disparity in the workplace on that island. This was measured using a 3-item scale, which tapped into common obstacles women face in the workplace. The items are: "Who will have an **easier time** to find a job?", "Who will have an **easier time** getting promoted?", and "Who will get **paid more**?". The 11-point Likert scale ranged from Definitely men (coded as -5) to Definitely women (coded as +5), with About the same as the mid-point (coded as 0). To convert this into a measure of the gender pay gap, I took the absolute value and the resulting scale ranged from one to six; the lower the number, the lower the perceived levels of gender disparity. These scores were averaged across the three items (α = .96–.97).

Afterward, they were introduced to another island, the Marshall Islands, and were told that the researchers conducted the same survey. Nevertheless, it is also highlighted that each Pacific islands have distinct cultures. As before, depending on their assigned condition, they will read that the Marshall Islands either endorse a *universal* or *non-universal mindset*. Then, they were asked the same set of perceived gender disparity questions.

After reading about both islands, they were lastly asked about gender disparity in the workplace between both islands. This was measured using a 5-item scale, which tapped into common obstacles women face in the workplace. The items are: "In which island do you think the **gender pay gap would be larger** (i.e., men are paid more than women in

general)?", "In which island do you think **men would more likely be promoted** compared to women?", "In which island do you think **men would be given more leadership roles** than women?", "In which island do you think **men would be offered better pay packages** than women?", "In which island do you think **men would rise through the ranks faster** compared to women?". The 11-point Likert scale ranged from Definitely Solomon Island (coded as -5) to Definitely Marshall Island (coded as +5), with About the same as the mid-point (coded as 0). The scores were averaged and mean-centered (α = .99), such that the closer to zero, the lower the perceived levels of gender disparity.

Results

My dependent variables for this study measure perceptions of workplace gender disparity. Following pre-registered analyses[1], a paired samples *t*-test found that when the island endorsed an *universal mindset*, participants were more likely to perceive that there is a lesser gender disparity (M = 1.39, 95% CI [1.20, 1.59], SD = 1.02) compared to when the island endorsed a *non-universal mindset* (M = 3.35, 95% CI [3.00, 3.69], SD = 1.82, $t(108)$ = -10.12, p < .001, Cohen's d = -1.32). Thus, Hypothesis 2 is supported.

When participants read that Solomon Islanders endorsed an *universal mindset*, they were more likely to perceive that there is more gender disparity in the Marshall Islands (M = 2.53, 95% CI [1.94, 3.12], SD = 2.21), and the same pattern was found vice-versa (M = -2.51, 95% CI [-2.97, -2.06], SD = 1.67, $t(107)$ = 13.40, p < .001, Cohen's d = 2.57). Thus, Hypothesis 4 is supported.

Discussion

Study 2 aimed to assess whether individuals perceive that there is a smaller workplace gender pay gap in a culture where most people endorse the *universal mindset* compared to a

[1] Analysis for the second dependent variable was pre-registered as a paired samples *t*-test. However, the more appropriate test should have been an independent samples *t*-test, which I used.

culture in which most people endorse the *non-universal mindset*. Specifically, I hypothesized that if a culture endorses the universal mindset, individuals would perceive that there are lower levels of gender disparity, such as a narrower gender pay gap, compared to cultures that endorse the *non-universal mindset.* I found support for my hypothesis, which has important implications because perceived norms are an important driver of people's behaviors (Zou et al., 2009; Cialdini et al., 1990).

GENERAL DISCUSSION

These two studies provided evidence of the relevance of the universal mindset in reducing the gender wage gap in the workplace. In Study 1, individuals who endorse a universal mindset, that is, the idea that most people have high leadership potential, are more willing to take actions to narrow the gender pay gap when adjusting employees' salaries as part of a promotion exercise (male employees earned more than female employees before promotion). It is likely that individuals with a universal mindset perceived that both men and women had similar levels of leadership potential, and thus offered them a similar pay post-promotion. Participants' fixed-growth mindset about leadership ability was unrelated to their gender pay gap decisions.

Study 2's findings have also shown that a culture's endorsement of the mindset influences individuals' expectations of gender disparity in the workplace in that particular culture. Namely, when a culture endorses the belief that only some have leadership potential (i.e., *non-universal mindset*), individuals were more likely to perceive that workplaces that are embedded in these types of culture are likely to experience more gender disparity compared to workplaces that are embedded in the opposite culture (i.e., *universal mindset*).

Since norms are powerful drivers of behavior (Zou et al., 2009; Cialdini et al., 1990), a distal impact this finding evokes is that employees might be less likely to take actions to address or even see a need to attempt to alleviate gender bias at the workplace when they

encounter gender disparity, since it is an accepted norm in organizations that endorse a *non-universal mindset*. This suggests that in addition to tackling biases at the individual level, targeting organizational culture and policies might be another worthwhile solution to alleviating gender bias in the workplace.

Theoretical implications

My research makes several important contributions. Firstly, this paper contributes to the emerging body of research that has studied mindsets about the *distribution* of a trait across the population as well (Li et al., 2020; Rattan et al., 2012, 2018; Savani et al., 2017). I extended the work of Liu et al. (2022) on the universal mindset of leadership potential by demonstrating its use in reducing gender bias against women as leaders and influencing important workplace behaviors (i.e., narrowing the gender pay gap). I reinforced the generalizability as well by showing that the universal mindset can meaningfully influence important management outcomes, namely in alleviating pervasive gender stereotypes of women in the workplace, whereas previous research mainly focused on societally important outcomes (e.g., viewing education as a fundamental right; Savani et al., 2017).

By extension, the universal mindset should similarly be able to assuage gender bias against men in women-dominated jobs (e.g., nursing). Beyond gender bias, I argue that the universal mindset should also be able to undercut bias in employment decisions influenced by other types of demographic attributes, such as those related to race, age, sexual orientation, social class, disability, and more. Endorsing a universal mindset means shifting away from stereotypes claiming that any group has more leadership potential than another, which should extend to all types of attributes. Hence, studying the universal mindset would have theoretical implications for other demographic stereotypes. However, it is unclear whether the universal mindset would continue to be as effective in reducing bias against members belonging to groups at the intersection of multiple negative stereotypes (e.g., Black women).

Lastly, this paper also extended from extant studies examining national cultures' impact on human resource practices and policies (Schuler & Jackson, 1999; Grenness, 2011; Black, 2001). In particular, I examined the downstream implication of national culture by demonstrating the influence national culture has on individuals' expectations regarding workplace climate, which might influence their behavior at the workplace. This suggests that interventions that help promote gender equality need to target multiple levels (e.g., workplace climate), not just on the individual level, reinforcing the need for a change in the working environment (Xu, 2008) to increase gender diversity in the workplace.

Practical implications

Diversity is a topic worth pursuing with its relevance to an organization's performance, and practitioners are equally keen to improve diversity within the workplace. Previous studies conducted on the universal mindset have found that by manipulating said mindset, it can lead to behavioral changes (Rattan et al., 2012; Savani et al., 2017), which is evidence that this concept is useful for both scholars and managers. Study 1's findings are consistent with previous findings about the relationship between mindset and behavior: individuals who endorse a universal mindset were more willing to take actions to narrow the gender pay gap.

As mentioned, organizations implement diversity training programs to address gender bias in the workplace; unfortunately, results have been mixed and, in certain industries, dismal (Bezrukova et al., 2012; Chang et al., 2019; Holladay et al., 2003). Diversity practices driven by the identity-conscious ideology (as opposed to the identity-blind ideology) increase the salience of gender by mentioning group membership, resulting in unintended negative consequences (Holladay et al., 2003; Annabi & Lebovitz, 2018). This intervention counteracts the flaws pertinent to the identity-conscious approach by demonstrating that training programs can help targeted groups without inducing backlash. Universal mindset

does not mention gender, so managers' personal beliefs and self-esteem are not threatened, thereby minimizing reactance. Managers' perceived choice is also not threatened since the intervention does not explicitly tell them they need to hire women. With its subtler effect and no spotlight on group membership, further examination of the universal mindset as a new form of diversity training program would have important managerial implications.

I do not make the claim that the universal mindset is the magic bullet to address workplace gender issues. In fact, scholars have touted that an integration of approaches is more effective than using a standalone approach (Bezrukova et al., 2016; Kalev et al., 2006). Moreover, to implement any type of interventions, organizations should be flexible (Richard et al., 2021). Specifically, organizations should identify weaknesses in their current diversity ideology and practices and adopt initiatives that complement them. Case in point, identity-blind intervention such as the universal mindset can overcome issues that companies practicing identity-conscious practices face, which would make it a better solution in this particular situation.

Limitations and directions for future research

One of the limitations of this paper is the methodology of my studies. While most of my studies recruited undergraduate students, I did address this issue by recruiting full-time employees from Amazon Mechanical Turk. However, it is far from perfection, as there have been warnings about using online samples (Fleischer et al., 2015; Chmielewski et al., 2020). I have attempted to address common issues such as inattentiveness using attention checks, but it is plausible that lower-quality data still fell through the cracks. Although I argued that the universal mindset about intelligence and the universal mindset about leadership potential are distinct, it is unclear whether one might be a stronger predictor of gender pay gap than the other. Future research can measure both types of universal mindsets to determine whether the

universal mindset about leadership potential will be a stronger predictor compared to the universal mindset about intelligence.

Since my studies used within-subjects design (i.e., managers evaluate male and female employees concurrently), it is unclear whether we will observe similar effects if managers were to evaluate male and female employees on separate occasions. Theoretically, if they endorse the universal mindset, they should perceive everyone to have high leadership potential regardless whether evaluations are done concurrently. However, I expect that evaluators would more likely increase the payment of candidates who are underpaid instead of lowering those who are adequately paid, because the tenet of universal mindset is to promote the idea that all candidates are deserving and should be rewarded according. Lowering pay to achieve equality seems counterintuitive. Moreover, within-subject research design might also evoke for potential demand characteristics. Thus, in a follow-up study, these two issues can be rectified by replicating Study 2's finding with a between-subjects design.

As with other types of intervention driven by the identity-blind ideology, the universal mindset intervention shares most, if not all, of their flaws. These types of interventions deem demographic differences unimportant and do not consider demographic attributes (Leslie et al., 2020). Thus, they are unable to account for structural discriminations (Bond & Pyle, 1998; Kilgour, 2013), such as female employees facing a lack of training opportunities and being held to stricter standards when it comes to promotion (International Labour Organisation, 2008; Lyness & Heilman, 2006). Thus, as mentioned above, an integration of approaches instead of a standalone approach might be the most effective solution (Bezrukova et al., 2016; Kalev et al., 2006).

How I have been using the universal mindset as an intervention also has its limitations. The motivation behind my studies is to promote the idea that women can also be

great leaders since different types of leadership styles can help a company succeed (Tsui et al., 2004). The universal mindset makes no claim about whether there is one ideal leadership style or whether there are many different effective leadership styles. The items used in the scale were intentionally vague, using phrases such as “good leader” and “effective leader.” However, it is possible that the participants’ idea of what a good and effective leader is might be narrow. The intervention could be improved by educating individuals that different types of leadership have advantages. Given that there are gender differences in leadership styles (Burke & Collins, 2001; Gibson, 1995; Jonsen et al., 2010), endorsing a universal mindset of leadership style could completely exclude one group of gender since they do not fit the individual’s prototypical idea of a leader. It is also important to note that existing beliefs that individuals hold regarding diversity and the strength of existing gender stereotypes could also influence the level of impact of diversity interventions (Homan, 2019; Liu et al., 2022); thus, future researchers can explore boundary conditions that strengthen or limit the influence of the universal mindset.

Despite that, it would be worthwhile to examine the efficacy of using the universal mindset to nudge beliefs about women’s leadership potential. Given the success of interventions for other types of mindsets (e.g., fixed-growth mindset, Dweck, 1999; 2014; Yeager et al., 2019), there is potential for adding the universal mindset to the list of diversity training programs to reduce gender stereotypes in the workplace. Moreover, future researchers can empirically examine the feasibility of using the universal mindset as a diversity training program and compare its effectiveness against existing programs, such as whether it can reduce reactance and resistance from participants compared to other types of programs. Likewise, to achieve long-term modification (Dasgupta, 2013), universal mindset interventions should not be created as a one-off training program. Future research can also extend the reach of the universal mindset’s influence beyond women’s leadership potential

and look at its effect on addressing other demographic stereotypes (e.g., bias against men or racial bias).

Conclusion

This paper has showcased a relationship between universal/non-universal mindset and the reduction of gender inequity: individuals who endorse a universal mindset believe that everyone has high leadership potential, whereas those who endorse a non-universal mindset believe that only some have high leadership potential. Individuals' endorsement of the universal mindset leads to behavior that promotes gender equity (e.g., narrowing the gender pay gap), demonstrating its potential in both empirical and practical aspects in helping to reduce gender disparity in the workplace.

CHAPTER 3: THE POWER OF DEFAULT: USING THE DEFAULT EFFECT TO INCREASE DIVERSITY IN JOB HIRING

ABSTRACT

Despite efforts to reduce gender and race biases in the hiring context, studies found that there has been no change in hiring discrimination over time (Quillian et al., 2017). The present research sought to identify a choice-architecture intervention (i.e., the default effect) to counteract employers' bias against qualified and competent female and racial minority candidates. We demonstrate that the default effect can nudge people to select more diverse candidates using three experiments. When female/racial minority candidates were selected as default options in hiring tasks, participants ended up selecting more women (Studies 1 & 3) and racial minorities (Study 2) compared to those who were assigned to the control condition (i.e., no options were selected by default). This relationship is moderated by perceived effort (Study 3). Importantly, participants were free to choose whomever they wanted; still, the default appears to have nudged them to consider increasing diversity.

Keywords: diversity; default effect; personnel selection; hiring discrimination; decision-making bias

INTRODUCTION

Over the past few decades, advances in women's and civil rights have spurred greater participation in the labor force by members of historically underrepresented groups. Combined with increasing globalization, these have led to workforces becoming more and more diverse (Barak & Travis, 2012). With social and political movements such as Time's Up and Black Lives Matter, issues concerning discrimination and inequality were getting hard to ignore by companies (Butler, 2021; Hautala, 2021; Grant, 2022). As these issues garner more attention and increase public scrutiny and advocacy, they have also generated increased discussion and actions regarding workplace discrimination and inequality (Buckley, 2018; Dunivin et al., 2022). Organizations decided to pay close attention to their recruitment, retention, and promotion processes to eliminate or minimize discriminatory practices to be viewed as socially responsible and tap into the benefits of having more diverse employees (Hafsi & Turgut, 2013).

However, research has shown that highly qualified women and racial minority groups continue to face widespread discrimination in the hiring process (Bertrand & Mullainathan, 2004; Booth et al., 2012; Jacquement & Yannelis, 2012; Steinpreis et al., 1999). Resumes with names belonging to minority groups were less likely to receive callbacks for interviews (Bertrand & Mullainathan, 2004; Bertrand & Duflo, 2017; Neumark, 2018), while male job applicants are rated as more competent and more hirable than comparable female ones (Moss-Racusin et al., 2012; Steinpreis et al., 1999). One of the reasons is that employers fall prey to the natural inclination to stereotype (Dipboye & Macan, 1988; Duguid & Thomas-Hunt, 2015; Hilton & von Hippel, 1996; Ziegert & Hanges, 2005) and see women and minority candidates as having undesirable characteristics (Kunst et al., 2019; Midtbøen, 2014; Weichselbaumer, 2020). As a result, women and racial minorities continue to be

underrepresented in fields such as Science, Technology, Engineering, and Mathematics (STEM; Bashir, 2022; Leaper & Starr, 2018; Varma, 2018).

Drawing on the default effect literature, the present research identifies a choice-architecture intervention, the *default effect*, to nudge recruiters to select more diverse candidates in hiring contexts. According to the default effect, when certain options are randomly designated as the default, people are more likely to choose default options over non-default options (Samuelson & Zeckhauser, 1988). For example, Johnson and Goldstein (2003) investigated the applicability of using default options in the field of medicine. They found that when being a donor was set as the default option, donation rates were twice the amount of when being a donor was not set as default.

Given that past research on the default effect has demonstrated its influence on real-world choices, such as decisions on investments and insurance (Cronqvist & Thaler, 2004; Madrian & Shea, 2001), and the effectiveness of using choice-architecture interventions to promote inclusive behaviors in the workplace (see Feng et al., 2020), I posit that if members of the underrepresented groups are set as the default, due to decision inertia (Johnson & Goldstein, 2003), recruiters would be nudged to hire more diversely. People tend to avoid making active decisions because it is stressful and unpleasant; one would need to perform physical actions or use cognitive effort to identify an optimal, alternate option (Jachimowicz et al., 2019; Shach & Zhao, 2018). Moreover, trade-offs that come with changes might induce loss aversion (Tversky & Kahneman, 1974).

I argue that the discomfort and uncertainty attached to the decision inertia would be enough to override the recruiter's stereotypical beliefs regarding minority candidates. Therefore, I theorize that the default effect can be used to reduce stereotypical beliefs and biases in the personnel selection context, resulting in more diverse hiring. In addition, I posit

that perceived effort would moderate the relationship between the default effect and increased diverse hiring. I test my hypotheses in three experimental studies.

THEORY AND HYPOTHESES

Default effect as an intervention to increase diversity in personnel selection

Choice-architecture interventions have been popular as compared to traditional solutions because they are generally inexpensive and less invasive (Szaszi et al., 2018) while at the same time preserving the freedom to choose (Johnson et al., 2012). Prompted by Thaler and Sunstein's (2009) suggestion to examine how individuals can be nudged into socially desirable directions, researchers have employed its influence on real-world choices in several domains. For example, the partition dependence, a nudge identified by Feng and colleagues (2020), was shown to increase inclusive behaviors in the hiring context, suggesting the promise nudge techniques have in promoting diversity in the workplace. Similarly, I theorize that other choice-architecture interventions, in this case, the *default effect*, should show similar efficacy in increasing inclusive behaviors in personnel selection.

Extant research has demonstrated the effectiveness of the default effect across several domains. For instance, companies have been found to use the default option to influence consumers, boosting sales and adjusting user interfaces (Goldstein et al., 2008). The default effect has already been incorporated in organizational policies to influence the proportion of new employees contributing to the 401K retirement plan (Goldstein et al., 2008; Madrian & Shea, 2001) and has shown promise as a nudge to reduce the gender gap in competition and support the ascension of women to leadership positions (He et al., 2021), strengthening the argument for its use to increase the likelihood of employers recruiting more diversely.

To create a diverse workplace where disadvantaged groups are able to achieve better workplace outcomes and companies can avoid discrimination-related litigation, scholars have tried to create interventions that aim to change people's attitudes (Krishnan et al., 2016). At

best, attitudes were changed but behavior was not (Chang et al., 2019); and at worst, temporary suppression of stereotypes actually increased prejudice (Legault et al., 2011). This suggests that changing attitudes itself will not be effective enough to reduce discriminant behaviors that impact the employment outcomes of minority members. Nudge paradigms, on the other hand, are designed to bypass attitudes and influence behavior (Thaler & Sunstein, 2009). Stereotypes require a great deal of training and a very long time to change (Dasgupta, 2013) and since it is unclear whether long-term interventions that targets attitudes would lead to desirable behaviors, I aim to examine if we can influence individuals to engage in less gender biased behaviors without changing their attitudes about women via the default effect.

I propose that when candidates belonging to underrepresented groups are set as default options, recruiters would be nudged to retain these candidates instead of leaning toward existing stereotypical beliefs and select identical male candidates, in turn promoting diversity in personnel selection in the long run. This is because when presented with default options, it evokes decision inertia, which states that people tend to avoid making active decisions. After all, it is stressful and unpleasant (Jachimowicz et al., 2019; Shach & Zhao, 2018), and the trade-offs that come with changes might induce loss aversion (Tversky & Kahneman, 1974).

Due to the discomfort and uncertainty of the decision inertia, the default effect would be enough to override a recruiter's stereotypical beliefs regarding minority candidates. First, to change out of the default option, recruiters would have to spend cognitive resources to screen for alternate candidates to hire and justify why these alternatives are better than the pre-selected ones. Given the challenge of predicting a job candidate's future performance based on the limited information gathered during the recruitment process, recruiters risk encountering a negative trade-off if the alternate candidates are less suitable than the default candidates for the job. Combined with organizations' needs to attract and retain diverse

employees (Jayne & Dipboye, 2004; Roberson, 2019), unless the quality between candidates is too objectively distinct, there are very few reasons for recruiters to spend additional effort to change the pre-selected options based on biases.

A similar diversity initiative that comes to mind is the tiebreak affirmative action program, where preference is given to members of the target group ceteris paribus. This "weak preferential treatment" proactively creates equal opportunity and can be applied to any employment decision (Harrison et al., 2006). There are two main distinctions between tiebreak affirmative action and default effect. First, managers are required to assign a small positive weight to targets, thereby constraining their decisions, whereas the nudge paradigm, in general, preserves choice (Johnson et al., 2012). Second, an active decision is required in tiebreak affirmative action programs but not in default effect. On the other hand, the default effect evokes decision inertia (Madrian & Shea, 2001), and managers can make decisions passively. In a hiring context, the difference is between managers selecting female job candidates over male job candidates (tiebreak affirmative action programs) versus female job candidates being selected on the manager's behalf (default effect).

In addition, I expect that the influence of the default effect would not be limited to a particular demographic group. If recruiters are nudged to hire more female candidates when they are set as the default, then similar effects should be seen when racial minority candidates are set as the default. Regardless of the group minority candidates belong to, recruiters would experience decision inertia, which would have the same influence over existing stereotypical beliefs. Recruiters would be similarly nudged toward keeping the pre-selected options instead of spending the effort to search for and hire candidates from the majority groups.

Specifically, I propose that:

Hypothesis 1: Setting minority job candidates as default options is positively associated with the likelihood of choosing them.

Perceived effort as a moderator

Behavioral and economic decision-making theories have maintained that action requires a cost-benefit analysis, and making a decision requires effort (Kahneman & Tversky, 1979). According to the law of less work (Hull, 1943), exerting effort leads to fatigue and this experience is so aversive (Kurzban, 2016) that individuals would select actions that minimize demands for exertion or work. Since individuals value their effort and treat it as costly (Kool & Botvinick, 2014), they have shown a bias in favor of the less demanding course of action and would want to conserve as much effort as possible (Kool et al., 2010). Furthermore, effort has been viewed as a finite resource that depletes with use, and thus individuals would be prompted to allocate it judiciously (Baumeister et al., 1998); empirical evidence concurs with this view (Hagger et al., 2010).

This concept of the costly effects of effort has been well-studied in judgment and decision-making literature. Decision-makers rely on heuristics and simplifying strategies (Gigerenzer & Goldstein, 1996; Tversky & Kahneman, 1974). Some scholars posit that using heuristics reduces individuals' efforts (Shah & Oppenheimer, 2008). Therefore, adopting a simpler decision strategy could be viewed as subjectively optimal when individuals consider the costs of effort (Westbrook et al., 2013).

I argue that perceived effort would moderate the relationship between the default effect and the likelihood of choosing female/racial minority candidates, such that the more effortful recruiters perceive choosing a candidate to be, the more likely they would be to stick with the default option. Since effort is viewed as a costly and scarce mental resource, individuals would want to adopt strategies that can help reduce the amount of effort they have to induce. Having decisions already made for them (e.g., being offered default options) serves as a convenient strategy for recruiters to accept and adopt. Moreover, due to decision inertia,

recruiters would be even less likely to use up their finite amounts of cognitive effort to identify an alternate option if they were presented with a pre-selected choice.

Hence, I propose that:

Hypothesis 2: The perceived effort of a task would moderate the positive association between the default effect and the likelihood of choosing more female candidates, such that individuals who perceived selecting the candidates to require more effort would be more likely to choose more female candidates than those who perceived selecting the candidates to require less effort.

OVERVIEW OF STUDIES

I tested my hypotheses across three studies. Study 1 tested the main hypothesis that participants in the *default effect* condition were likelier to choose more female candidates than those in the *control* condition by asking participants to select three out of 10 candidates (six men, four women). Study 2 sought to examine the generalizability of the default effect's impact on choosing a more diverse pool of candidates by changing the default options from female to racial minority candidates; participants were asked to select four out of 10 candidates (seven Whites, three non-Whites). Study 3 examined the moderating effect of perceived effort on the impact of the default effect on the likelihood of choosing more female candidates by asking participants to select four out of 16 candidates (11 men, five women). The proportion of candidates used in my study reflect the proportion of employees in the real-world: in the finance industry, women represent about 40% of the workforce (LinkedIn, 2022b; Study 1); less than 70% of professional employees in finance industry are White (Hickey, 2021; Study 2); and in the energy industry, women represent about 25% of the workforce (LinkedIn, 2022b; Study 3). Across all studies, no participants were excluded unless reported. All experimental conditions and measures are reported.

STUDY 1: GENDER, ESTABLISHING MAIN EFFECT

The goal of Study 1 was to test the main hypothesis—whether participants in the *default effect* condition would be more likely to choose more female candidates than those in the *control* condition.

Method

Participants. I posted a survey seeking 200 participants on Amazon's Mechanical Turk (MTurk). In response, 202 participants completed the survey (M_{Age} = 43.93 years, SD_{Age} = 12.00, two declined to state their age; 121 women, 80 men, one declined to state gender). Participants whose MTurk ID appeared more than once were excluded from analysis ($N = 4$) because prior attempts might affect their responses.

Procedures. Participants were randomly assigned to one of two of the experimental conditions: the *default effect* condition or the *control* condition. Participants in both conditions were presented with the following scenario:

> *Imagine that you are a Human Resource manager in a large investment bank. Recently, your company launched a new business division. There are four vacancies for the position of a Business Analyst in that division, which have attracted a large number of applicants. After a few rounds of interviews, you have shortlisted 10 candidates. All ten candidates have a Master of Business Administration (MBA) degree in different finance-related fields. You need to select four of the ten candidates for the job openings.*

Participants were then presented with a list of ten candidates (six men, four women) and some information. The information included the candidate's name (e.g., Karen Lewis), which suggested the candidate's gender, education background (e.g., MBA from the University of North Carolina, Chapel Hill), and their MBA GPA.

In the *default effect* condition, participants would see that some of the candidates have been pre-selected, while those in the *control* condition would see none of the candidates have been pre-selected (Please refer to Appendix B for examples of both conditions). Participants in both experimental conditions received the same instructions telling them to "Please choose any four candidates whom you would like to hire," indicating that they are free to change the selections if they wish to.

Results

Using percentage of female candidates selected as the dependent variable (i.e., number of female candidates selected divided by four), a two-tailed independent samples *t*-test found that participants in the *default effect* condition ($M = 0.51$, 95% CI [0.47, 0.55], $SD = 0.20$) selected more female candidates than those participants in the *control* condition ($M = 0.43$, 95% CI [0.39, 0.46], $SD = 0.19$; $t(196) = -2.92$, $p = .044$; Cohen's $d = -0.42$). Therefore, Hypothesis 1 is supported.

Discussion

Study 1 supported the main hypothesis (Hypothesis 1): participants in the *default effect* condition were likelier to choose more female candidates than those in the *control* condition. Since there is preliminary evidence on the default effect's impact on increasing gender diversity, the next study aimed to examine if this impact is generalizable to other demographic groups (i.e., racial minorities).

STUDY 2: RACE, GENERALIZABILITY OF DEFAULT

The goal of Study 2 was to conceptually replicate the findings from Study 1 with a different minority group. Instead of female candidates, I wanted to see if the default effect can also nudge participants to increase diversity by choosing more racial minority candidates.

I also wanted to test if mentioning of a neutral third party (AI-recruiting tool[2]) would affect the main effect found in Study 1.

Method

Participants. I posted a survey seeking 100 participants on Amazon's Mechanical Turk (MTurk). In response, 102 participants completed the survey (M_{Age} = 44.61 years, SD_{Age} = 13.21, three declined to state their age; 39 women, 63 men). Participants whose MTurk ID appeared more than once were excluded from analysis (N = 1) because prior attempts might affect their responses. I excluded two additional participants who failed to follow instructions (i.e., choosing any number of candidates other than four).

Procedures. Participants were randomly assigned to one of two of the experimental conditions: the *default effect* condition or the *control* condition. Participants in both conditions were presented with the following scenario:

> *Imagine that you are a Human Resource manager in a large investment bank. Recently, your company launched a new business division. There are four vacancies for the position of a Business Analyst in that division, which have attracted a large number of applicants. After a few rounds of interviews, you have shortlisted 10 candidates. All ten candidates have a Master of Business Administration (MBA) degree in different finance-related fields. You need to select four of the ten candidates for the job openings.*

Participants were then presented with a list of ten candidates and some information. The information included the candidate's name (e.g., George Anderson), which suggested the

[2] Sautua (2017) noted that people might stick with the default due to personal responsibility. Due to the default option being their previous selection (or their colleagues might make the decision), they would want to avoid the need to admit past mistakes or the associated loss of face and stand by their past decision. By explicitly stating that a neutral third party made the default options, this removes the possibility of participants assigning responsibility to themselves (or someone they know), so I can exclude such extraneous explanation when accounting for the results we find in this study.

candidate's gender, education background (e.g., MBA from the University of Virginia, Charlottesville), and their MBA GPA.

In the *default effect* condition, participants would see that some of the candidates have been pre-selected (i.e., the check boxes next to the candidate's name have been ticked), while those in the control condition would see none of the boxes have been ticked. Participants in the *default effect* condition also read that "An AI-recruiting tool that your company uses has already chosen the four best candidates. However, you can choose any four candidates whom you would like to hire," indicating that they are free to change the selections if they wish to.

Results

I calculated proportion of racial minorities selected, the dependent variable, using Blau's Index (Blau, 1977). A two-tailed independent samples *t*-test found that participants in the *default effect* condition ($M = 0.58$, 95% CI [0.55, 0.61], $SD = 0.12$) selected more racial minority candidates than those in the *control* condition ($M = 0.52$, 95% CI [0.47, 0.57], $SD = 0.17$; $t(100) = -2.04$, $p = .022$; Cohen's $d = -0.40$). Therefore, Hypothesis 1 is supported.

Discussion

Study 2 replicated the findings from Study 1 and supported the idea for a broader use of the default effect; the default effect is generalizable and can increase diversity for demographic groups other than gender. In this study, the default effect was able to nudge participants to select more racial minorities, similar to how it was able to nudge participants to select more female candidates in the previous study. Furthermore, the mention of a neutral third party (AI tool) did not significantly affect the main effect.

In real-life hiring situations, recruiters would be presented with a full resume instead of profiles with selected information. Hence, I rectified this limitation in the next study.

STUDY 3: GENDER, BOUNDARY CONDITIONS

In an attempt to imitate the real world and improve on the ecological validity, Study 3 used full-length resumes instead of presenting a selected amount of information to participants. The second goal of this study is to examine the moderating effect of effort on the relationship between the default effect and the likelihood of selecting more female candidates. I expect that effort would moderate the positive association between the default effect and the likelihood of choosing more female candidates, such that participants who perceived selecting the candidates to require more effort would be more likely to choose more female candidates than those who perceived selecting the candidates to require less effort.

Method

Participants. This was a lab study conducted in Singapore. I recruited 100 undergraduate students at a large university in Singapore, and 104 completed the study (M_{Age} = 22.08 years, SD_{Age} = 1.85; 61 women, 43 men. All of the participants had unique ID. I excluded two participants who failed to follow instructions (i.e., keying in the wrong condition code or choosing any number of candidates other than four).

Procedures. Participants were randomly assigned to one of two of the experimental conditions: the *default effect* condition or the *control* condition. Participants in both conditions were then presented with the following scenario:

Imagine that you are a Human Resource manager in a large engineering company in Singapore, which manufactures machinery and equipment used in oil and gas exploration and production. Recently, your company launched a new business division. There are four vacancies for the position of a Product Engineer in that division. From past experience, you have found Masters of Engineering graduates with a specialization in engineering to be the best employees for this position. You

advertised the job opening at four local universities and received 16 applications. Your job is to review these applicants' resumes and shortlist four candidates for a face-to-face interview. As you may have noticed, there's a big envelope lying on the desk in front of you. The 16 resumes are enclosed in this envelope. Please open the envelope and review the 16 resumes carefully, and then make a shortlist of four candidates for the interview based on your preference.

Participants were presented with the list of 16 candidates (11 men, five women) for selection. In the *default effect* condition, participants would receive additional instructions:

An AI recruiting tool that your company uses has recommended four candidates. The resumes of these 4 candidates have been grouped together using a paper clip, and kept in this envelope as the other 12 resumes. However, you are free to choose any four of the 16 candidates.

They would also see that four physical copies of the resumes were paperclipped together while the rest of the 14 copies were separate pieces. On the other hand, those in the *control* condition would see all the physical copies of resumes as 16 separate pieces in the envelope. After they reviewed all the resumes, participants in both conditions were asked to set aside the four they wanted to shortlist for an interview. After they had made their decision, they were asked to complete the effort scale. Participant's perceived effort in selecting the candidates is measured using two items: "I chose these candidates because they were the easiest to choose." and "I chose these candidates because it would have been too much effort to choose other candidates." ($\alpha = .90$). The 7-point Likert scale ranged from Strongly Disagree (coded as 1) to Strongly Agree (coded as 7).

Results

Using percentage of female candidates selected as the dependent variable (i.e., number of female candidates selected divided by four), a two-tailed independent samples *t*-

test found that participants in the *default effect* condition (M = 0.43, 95% CI [0.37, 0.50], SD = 0.23) selected more female candidates than those participants in the *control* condition (M = 0.31, 95% CI [0.25, 0.37], SD = 0.21; $t(101) = -2.82$, p =.006; Cohen's d = -0.56). Therefore, Hypothesis 1 is supported.

A regression was conducted with the experimental condition and perceived effort as the predictors. The main effects between the experimental condition and dependent variable (b = -0.10, SE = 0.10, p = .339, 95% CI [-0.30, 0.11]), and perceived effort and dependent variable (b = -0.03, SE = 0.02, p = .148, 95% CI [-0.07, 0.01]) were not significant. However, I found a significant interaction between effort and the default effect condition (b = 0.07, SE = 0.03, p = .020, 95% CI [0.01, 0.13]). Therefore, Hypothesis 2 is supported.

Discussion

Study 3 was able to conceptually replicate the findings from Study 1. Participants in the *default effect* condition were likelier to choose more female candidates than those in the *control* condition. Similar to Study 2, the main effect is still supported even though there is the mention of a neutral third party (AI tool). Furthermore, Study 3 demonstrated perceived effort as a significant variable in moderating the effects of the default bias. Individuals who perceived choosing the candidates to require more effort were likelier to stick to the default options than those who perceived choosing the candidates to require less effort, as illustrated in Figure 3.

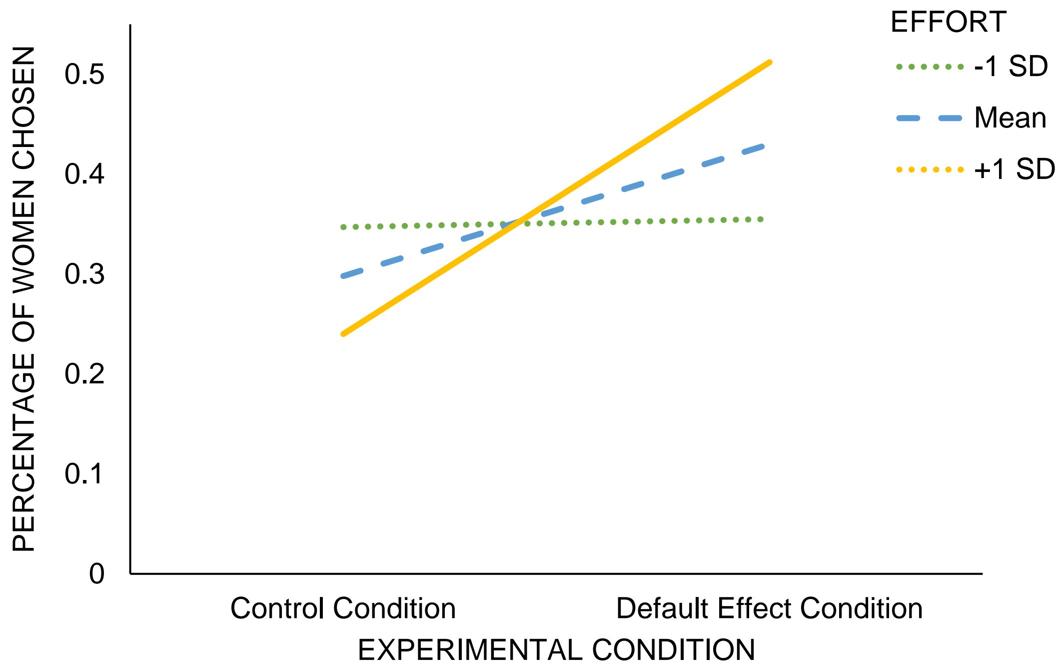

Figure 3. Line graph depicting the effects of effort at mean and +/- 1 *SD* for Study 3.

GENERAL DISCUSSION

All three studies provided evidence of the effectiveness of using the default effect in increasing diversity in the workplace. When members of the minority group were set as the default options, participants in the *default effect* condition were more likely to select more minority candidates than those in the *control* condition. In Study 1, I tested the main effect of whether participants in the *default effect* condition were more likely to choose more female candidates than those in the *control* condition. Presented with a list of equally viable candidates, participants were free to choose any four of the ten candidates they would like to hire, despite those in the *default effect* condition would see that the candidates were already pre-selected for them. Results provided support for my dominant hypothesis.

Study 2 sought to test the generalizability of the default effect's impact on demographic groups other than gender. I found that it similarly influenced participants' choices when the target group changed from women to racial minorities. This finding

suggests that the default effect can be used to counteract stereotypical biases in general. It is not limited to only gender and can be used to reduce prejudices in general in the workplace.

On top of providing support for the main hypothesis, Study 3 extended previous findings by examining perceived effort as a moderator. Results showed that those who perceived choosing the candidates to require more effort were likelier to stick to the default options than those who perceived choosing the candidates to require less effort.

The uneven number of candidates between gender in some of my studies reflected the imbalanced gender proportion experienced in the real world (Adams et al., 2018; Sargis & Lutton, 2016). Results have shown the strength of the default bias in reducing stereotypical bias, as even in situations where women are disadvantaged, participants assigned to the *default effect* condition continue to choose a significantly larger proportion of women compared to participants in the *control* condition.

Theoretical implications

My research makes several important contributions. First, this paper contributes to the personnel selection literature by introducing the default bias from the field of decision-making and demonstrating its relevance and use in influencing recruiter's stereotypical bias and important workplace behaviors (e.g., increasing the likelihood of choosing a more diverse pool of candidates). Specifically, the default effect provides a convenient strategy for recruiters to adopt to reduce the amount of effort they have to exert. I demonstrated that recruiters could be nudged to increase diversity in personnel selection by setting members of historically underrepresented groups as the default hiring option, thereby overriding recruiters' existing stereotypical biases.

Second, I added to the body of research that studies decision-making biases by suggesting that biases are not necessarily a deficiency that individuals need to minimize or overcome. Historically, biases have been framed as a negative attribute contributing to

individuals making suboptimal decisions (Dibonaventura & Chapman, 2008; Jain et al., 2015). However, the studies conducted in this paper have revealed that we can turn these supposed negative decision-making biases around and use them to create desired outcomes. In this case, I used a decision-making bias (i.e., the default effect) to cancel out the gender and racial stereotype biases. This indicates that decision-making biases are not always as bad as scholars have painted and that there are ways we can use them to our advantage, namely in alleviating pervasive gender and racial stereotypes in the workplace.

By extension, the default effect should similarly be able to assuage gender bias against men in women-dominated jobs (e.g., nursing). Study 2 has illustrated that the impact of the default effect is not limited by group membership. Beyond gender and racial biases, I argue that the default effect should also undercut bias in decisions based on other types of stereotypes, such as those related to age, sexual orientation, social class, disability, and more. As long as minority candidates are set as the default, recruiters would experience decision inertia and want to avoid making more decisions to select options outside of the default, so the influence of the default effect should extend to all types of biases. Hence, studying the default effect would have theoretical implications for all types of stereotypes. However, it is unclear whether the default effect would continue to be as effective in reducing bias against members belonging to groups at the intersection of multiple negative stereotypes (e.g., Black women).

Lastly, my research supports the faction of scholars who advocate for the law of less work (Hull, 1943) and hold a resource-based view of cognitive effort (Baumeister et al., 1998; Hagger et al., 2010). This paper provided evidence that individuals favor the less demanding course of action and use strategies that can help reduce the amount of effort they have to induce. My research provides an in-depth examination of the impact of the default effect beyond the main effects, showing that there are boundary conditions, suggesting that

the default effect might be less effective in certain contexts, such as in individuals who associate mental effort exertion with reward (i.e., earned industriousness; Eisenberger, 1992).

Practical implications

Companies have recognized that a diverse workforce is a key to maintaining competitive advantage and organizational functioning (Roberson, 2006). Consequently, many companies are implementing costly diversity initiatives (Wingfield, 2015; Daniels, 2001), yet there is mixed evidence that current diversity interventions are effective (Bezrukova et al., 2012; Chang et al., 2019). My research provides an effective and low-cost intervention to counteract stereotypical biases in personnel selection. By setting historically underrepresented candidates as default options, organizations could encourage managers to make less biased decisions and increase workforce diversity. Furthermore, this intervention preserves an individual's freedom to choose (Johnson et al., 2012), minimizing reactance from participants as other types of diversity initiatives might incur (Holladay et al., 2003; Annabi & Lebovitz, 2018).

Other diversity initiatives are costly because managers must take time away from work or find time outside work to attend training. Some training sessions require materials, which adds to expenses that the organizations need to incur, and interventions typically require participants to attend more than one session for it to be effective (Cheng et al., 2019). Furthermore, the budget restrains smaller firms, with larger firms being more than twice as likely as smaller ones to provide employees with diversity training (Wilkie, 2014). The default effect method is low-cost because no training is required. The generalizability of the default effect implies that this method would effectively address more than one type of workplace bias. Companies can adopt the same method across industries, regardless of underrepresentation in terms of gender or race.

To counteract hiring discrimination and increase the likelihood of getting hired, female and racial minority candidates find themselves using social-identity-based impression management strategies, such as using less feminine language in cover letters or whitening their resumes, to increase the likelihood of getting hired (He & Kang, 2021; Kang et al., 2016). However, this inauthenticity has been found to backfire. Using the default effect as an intervention, job candidates are free to be authentic in their resumes. They are free to spend more energy focusing on listing their strengths and relevance instead of hiding information they perceive will be discriminated against. Employers will also be able to make a more accurate assessment on the fit of these job candidates with authentic information.

Limitations and directions for future research

One of the limitations of the first two studies is concerned with the ecological validity of the experiments. I addressed this concern in Study 3 by presenting participants with full-length resumes that mimicked resumes job applicants used in real life instead of presenting participants with selected information about the candidates. Another limitation was the AI tool as the possible confound in Studies 2 and 3. There were concerns that participants stuck to the default options because those options were selected by AI and not because of the default effect. However, the main effect results of Study 1 were replicated in Study 2. This excluded the possibility that the AI tool is a confound in Study 2; regardless of whether participants were informed of the presence of the AI tool, the default effect was the main predictor of why participants chose more minority candidates. However, it would be ideal to exclude the mention of the AI tool in follow-up studies. I did not measure whether participants perceive the female candidates as deserving of the positions. Although the paper where the materials have been adapted from (Feng et al., 2020) has found evidence that the candidates were being perceived as being similarly and highly qualified, it would have been ideal if I had replicated this in my own studies. The moderator, effort, was measured after the

dependent variable, which violates the temporal priority principle of research design; however, participants had first experience making the decision in order to report how effortful they perceived the task to be, so the order of the effort scales were deliberately placed after the dependent variable in Study 3.

This design has limited applications. For example, there needs to be a handful of qualified applicants to apply for the job. It is challenging to determine the minimum number of applicants required; given that perceived effort might be a boundary condition for the default effect to work, I expect that the fewer applicants, the less likely this nudge would work. Despite that, it is still a fair process because the underlying argument of my studies was that given that all applicants are equally qualified, the default effect should help to nudge recruiters to select members from groups that are historically discriminated against without removing the freedom to change the pre-selected options if the recruiters deem non-selected candidates to be a better choice than the pre-selected ones.

Ratio-based diversity initiatives such as the default effect, which focus solely on outcomes (e.g., hiring or promoting women), may have both legal and psychological negative consequences (e.g., reverse-discrimination lawsuits; Dobbin, 1998; Golden et al., 2001; Pyburn et al., 2008), especially if there is lack of appropriate consideration of fair procedures (Choi & Rainey, 2014). To what extend do such preferential treatment approaches justify its use is still unclear, which makes the adoption of such approach tricky for HR practitioners (Harrison et al., 2006). In general, using default effect to rectify gender and racial imbalance in the workplace is illegal in countries such as the U.S. as its civil rights law prohibits using protected group information in the hiring process. However, these types of interventions can be applied for other underrepresented groups and in other countries for workplace gender and racial issues where using protected group information in the hiring process is not illegal. Identity-blind practices tend to ignore social inequalities and structural discriminations since

they minimize demographic differences (Bond & Pyle, 1998; Kilgour, 2013; International Labour Organisation, 2008; Lyness & Heilman, 2006); hence, it is not the preferred approach for targeted employees (Choi & Rainey, 2014). This implies that organizations should only incorporate the default effect intervention in their hiring practices with considerable deliberation and adequate justification to decrease adverse reactions from employees (Harrison et al., 2006). Indeed, when accountability is added to the equation, participants' trust in management was not negatively impacted when an identity-blind approach was used to guide personnel decisions (Self et al., 2015).

Although mediators are commonly examined in research in industrial psychology and social psychology, in judgment and decision-making research, which the default effect is situated in, mediators are rarely, if ever, examined. Decision making nudges, such as the default effect, seek to directly influence behavior without changing people's attitudes, beliefs, or emotions. As mediators are typically self-report measures, I do not believe that it is possible to identify measurable mediators for the default effect. The hypothesized psychological process is that when people see a mix of men and women selected by default, they tend to choose a similar mix of men and women in their final choices (i.e., a behavioral conformity effect). Thus, in this paper, I have focused on and established the main effects of the default effect and increasing the likelihood of choosing more diverse candidates, and also found effort to be a moderator of the relationship. For future studies, scholars can consider using a behavioral measure of effort, such as reaction time, and not just self-reported measures.

There are other potential moderators yet to be empirically examined. I have mentioned decision inertia, but scholars have posited others, such as implicit endorsement and reference dependence (McKenzie et al., 2006; Dinner et al., 2011). People infer policymakers' attitudes through their choice of default, and as a result, individuals perceive

the default options as the recommended option (McKenzie et al., 2006). This suggests that the stronger the perceived implicit endorsement, the stronger the default effect could have on nudging individuals' behaviors. Research has found that existing beliefs that individuals hold regarding diversity and the strength of existing gender stereotypes could also influence the level of impact of diversity interventions (Homan, 2019; Liu et al., 2022); thus, future researchers can examine individual's strength of stereotypes as a boundary condition. It would be interesting to examine which of these variables has a stronger moderating effect. For instance, implicit endorsement could be manipulated with the mention of how the option came to be the default (as per what was done in Study 2 with the mention of the AI tool, except it could be an HR expert who made the default choice or further elaboration of how the AI tool came to its conclusion by using historical data provided by the company).

Despite the evidence that the default effect can counteract stereotypical biases individuals have regarding women and racial minorities, many other groups are marginalized and discriminated at the workplace (e.g., age, sexual orientation, social class, disability). Future research can also examine if the default effect has similar efficacy in situations where the majority becomes the minority (e.g., female-dominated industry). It would also be worthwhile to determine the influence of the default effect in reducing bias against members belonging to groups at the intersection of multiple negative stereotypes (e.g., Black women).

Conclusion

Managers are required to make millions of decisions every day, and it is evitable that existing biases consciously or unconsciously influence their decisions. Scholars in the decision-making literature have typically focused on reducing biases through increasing the individual's awareness of unconscious biases they might have or introducing interventions to alleviate these biases. I posited that we could use recruiters' existing biases to our advantage; in particular, we can use one bias to counteract another. In this paper, I used the default bias

to negate the effects of stereotypical gender and racial bias in personnel selection. The results have been promising, suggesting the default effect's potential as an alternative method to alleviate gender and racial biases in the workplace.

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APPENDIX

Appendix A: Scales Used in Chapter 2, Study 1

Non-Universal Mindset Scale on Leadership Potential Scale (Liu et al., 2022)

1. Even in the right environment, not everyone can be an effective leader.
2. Some people just don't have high leadership potential no matter how hard they try to be a good leader.
3. Only some people have the inborn potential to be effective leaders.
4. Even if they have access to a good education, some people just don't have the capacity to be effective leaders.
5. There are limits to how effective a leader someone can be, despite the opportunities and support they have.
6. There are people who just can't be good leaders even if they get a chance to.
7. To be honest, not everyone has high leadership potential.
8. All people cannot be a good leader; there will always be individuals who just cannot lead effectively.

Likert scale: Strongly disagree, Moderately disagree, Somewhat disagree, Somewhat agree,

Moderately agree, Strongly agree.

Fixed Mindset Leadership on Leadership Potential Scale (Liu et al., 2022)

1. People have a certain amount of leadership ability, and they can't really do much to change it.
2. People's leadership ability is something about them that they can't change very much.
3. You can learn new things, but you can't really change your basic leadership ability.

Likert scale: Strongly disagree, Moderately disagree, Somewhat disagree, Somewhat agree,

Moderately agree, Strongly agree.

Appendix B: Stimuli Used in Chapter 3, Study 1

An example of what participants see in the default effect condition

Below is a list of the 10 shortlisted candidates.

Please **choose any** FOUR candidates whom you would like to hire:

Note: All candidates' GPA (grade point average) in their MBA degrees are calculated on a 4.0 scale.

Michelle Brown, MBA from the University of Illinois—Urbana-Champaign, GPA 3.55

Jack Wilson, MBA from the Iowa State University, Ames, GPA 3.55

George Anderson, MBA from the University of Virginia, Charlottesville, GPA 3.52

Brad Johnson, MBA from the University of California, Irvine, GPA 3.51

Jackson Harris, MBA from the University of Minnesota, Twin Cities, GPA 3.55

Karen Miller, MBA from the Arizona State University, Tempe, GPA 3.53

Lisa Smith, MBA from the University of Michigan, Ann Arbor, GPA 3.51

Kate Lewis, MBA from the University of North Carolina, Chapel Hill, GPA 3.53

Bradley Thompson, MBA from the University of Wisconsin—Madison, GPA 3.54

Daniel White, MBA from the University of California, Santa Barbara, GPA 3.51

An example of what participants see in the control condition

Below is a list of the 10 shortlisted candidates.

Please **choose any FOUR** candidates whom you would like to hire:

Note: All candidates' GPA (grade point average) in their MBA degrees are calculated on a 4.0 scale.

- Kate Lewis, MBA from the University of North Carolina, Chapel Hill, GPA 3.53
- George Anderson, MBA from the University of Virginia, Charlottesville, GPA 3.52
- Karen Miller, MBA from the Arizona State University, Tempe, GPA 3.53
- Jack Wilson, MBA from the Iowa State University, Ames, GPA 3.55
- Daniel White, MBA from the University of California, Santa Barbara, GPA 3.51
- Michelle Brown, MBA from the University of Illinois—Urbana-Champaign, GPA 3.55
- Brad Johnson, MBA from the University of California, Irvine, GPA 3.51
- Jackson Harris, MBA from the University of Minnesota, Twin Cities, GPA 3.55
- Bradley Thompson, MBA from the University of Wisconsin—Madison, GPA 3.54
- Lisa Smith, MBA from the University of Michigan, Ann Arbor, GPA 3.51