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The Messenger and the Message:
How Identity and Voice Shape Social Perception
in Contentious Communication

A dissertation submitted in partial satisfaction of the
requirements for the degree Doctor of Philosophy
in Management

by

Elizabeth Q. Jiang

2026

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ABSTRACT OF THE DISSERTATION

The Messenger and the Message:
How Identity and Voice Shape Social Perception
in Contentious Communication

by

Elizabeth Q. Jiang

Doctor of Philosophy in Management

University of California, Los Angeles, 2026

Professor Margaret Shih, Co-Chair

Professor Sanford DeVoe, Co-Chair

Workplaces have become increasingly visible platforms for voicing stances on contentious social and political issues, with companies and employees speaking up about topics ranging from socioeconomic inequality to race and gender representation. Yet the risks of speaking up are consequential: individuals and companies face potential reputational harm if their messages are delivered or received poorly.

In this dissertation, I examine the influence that messenger identity and message framing exert on the way workplace voice is perceived. Drawing on voice, social identity, and social perception research, I investigate how the demographic identity of messengers and the framing

of their message jointly shape audience evaluations. I explore how these two factors affect perceptions of messengers and of the message itself. In Chapter 1, I focus on understanding messenger-side perceptions of motivation. Across one pilot and three preregistered experiments ($N = 2,240$), I demonstrate a negative messenger-message discordance effect: when presenting group-based workplace disparities, messengers with socially dominant identities are perceived as less other-interested and more self-interested than messengers with non-dominant identities. However, I find that changing the message framing to incorporate explicit personal advocacy against inequality mitigates this disadvantage for the socially dominant messenger and boosts perceived other-interest for all messengers. In Chapter 2, I turn my attention to message-side perceptions using workplace advertisements. Across four preregistered experiments ($N = 5,125$), I show that advertisements featuring stereotype-congruent versus stereotype-incongruent portrayals of models elicit divergent evaluations from liberal and conservative audiences. These evaluations vary in direction and magnitude depending on the racial identity of the models depicted, revealing the importance of how message content and framing affect the way audiences respond.

Together, these findings advance research on the influence that messenger identity and message framing have in shaping the perception of workplace voice on contentious topics. This work emphasizes the importance for employees and organizations to carefully consider who speaks up, how they do so, and to what audiences when navigating an increasingly polarized social and workplace landscape.

The dissertation of Elizabeth Q. Jiang is approved.

Jueyu Wu

Chong He

Margaret Shih, Committee Co-Chair

Sanford DeVoe, Committee Co-Chair

University of California, Los Angeles

2026

For tomorrow.

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CURRICULUM VITAE

Elizabeth Q. Jiang

EDUCATION

UCLA Anderson School of Management
Ph.D. in Management and Organizations

Los Angeles, CA
Expected June 2026

Harvard University
B.A. in Sociology and Psychology

Cambridge, MA
May 2016

PEER-REVIEWED PUBLICATIONS

Jiang, E. Q. and Wu, S. J. (2025). Messenger-message discordance: When presenting workplace disparities, *who* speaks up (and *how*) matters for other-interest and self-interest attributions. *Personality and Social Psychology Bulletin*, 0(0). <https://doi.org/10.1177/01461672251338679>

Jiang, E. Q. and Shih, M. J. (2025). Liberals and conservatives respond divergently to stereotype portrayals of race and gender. *Communications Psychology*, 3(1), 109. <https://doi.org/10.1038/s44271-025-00287-6>

MANUSCRIPTS UNDER REVIEW

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Ascigil, E. et al. [incl. **Jiang, E. Q.**] (conditional acceptance). Registered report: Multi-country investigation of minimal social interactions. *Personality and Social Psychology Bulletin*.

CONFERENCE PROCEEDINGS & PRESENTATIONS

**Chaired Symposia*

***Jiang, E. Q.** It Gets Better: Striving to Improve Oneself and The Firm. Academy of Management Annual Meeting, Chicago, IL, 2024.

***Jiang, E. Q.** and Schroeder, J. Social Pitfalls At Work: Mistaken Beliefs About Maximizing Workplace Social Value. Academy of Management Annual Meeting, Boston, MA, 2023.

***Jiang, E. Q.** Happiness and Well-Being Researchers Roundtable. Society for Improving Psychological Science, Virtual, 2021.

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- Academy of Management Annual Meeting, Chicago, IL, 2024
- International Association for Conflict Management Annual Conference, Singapore, 2024

- Society for Personality and Social Psychology Annual Convention, Virtual, 2022
Pre-conferences: Attitudes and Social Influence, Intervention Science, and Self and Identity
- Harvard Women in Psychology Trends in Psychology Summit, Virtual, 2021

Jiang, E. Q. and Shih, M. J. The Politics of Workplace Portrayal: Perceptions of Race and Gender Portrayals Depend on Ideology.

- Academy of Management Annual Meeting, Chicago, IL, 2024
- Association for Consumer Research Annual Conference, Paris, France, 2024
- Association for Consumer Research Annual Conference, Seattle, WA, 2023

Jiang, E. Q. and DeVoe, S. E. The First Laugh: Is It Easier Than We Think to Attempt Humor with Strangers?

- Academy of Management Annual Meeting, Boston, MA, 2023

Sun, K. S., Cupal, L., **Jiang, E. Q.**, and Shih, M. J. Persuasion at What Cost? Non-Dominant Group Members Gain Persuasiveness through Counter-group Advocacy.

- Academy of Management Annual Meeting, Copenhagen, Denmark, 2025
- Society for Personality and Social Psychology Annual Convention, Denver, CO, 2025
- International Association for Conflict Management Annual Conference, Singapore, 2024

AWARDS AND GRANTS

UCLA Graduate Division Dissertation Year Fellowship – \$20,000

UCLA Morrison Center for Marketing and Data Analytics Research Grants – \$10,500

UCLA Semel Healthy Campus Initiative Center COVID-19 Research Grant – \$13,000

PROFESSIONAL AND INDUSTRY WORK EXPERIENCE

Harvard Business School, Organizational Behavior Unit

Research Associate; Case and Teaching Note Writer

October 2018 – July 2020

Brigham and Women's Hospital & Dana-Farber Cancer Institute

Clinical Research Coordinator

June 2018 – October 2018

Parthenon-EY

Associate in Management Consulting, San Francisco

September 2016 – June 2018

Summer Associate in Management Consulting, Boston

Summer 2015

Radcliffe Institute for Advanced Study at Harvard University

Radcliffe Research Fellow

September 2014 – May 2015

INTRODUCTION

Shakespeare provided keen insight into human nature when he wrote in 1599:

*“All the world’s a stage,
And all the men and women, merely players ...
And so he plays his part.”*

More than three hundred years later, Erving Goffman argued that we humans are all “actors” – individuals visible on a metaphorical stage, trying to control and manage our public image, acting based on how others might see us (1959).

These vivid statements convey the timeless and universal human tendency to concern ourselves with what others think of us – to worry about social perception. This concern about how others perceive us motivates behaviors that we think will grant us favorable impressions and avoid unfavorable attributions. To achieve highly desirable social perceptions, we engage in strategically managing our reputation, such as boasting about our individual merits or valuable connections with others and justifying or distancing ourselves from negative outcomes (Bolino et al., 2008; Kowalski & Leary, 1990; Snyder, 1974; Vohs et al., 2005). We do this not only because it feels good to be liked (Anderson et al., 2012; Baumeister & Leary; DeWall & Bushman, 2011) or because it hurts to be disliked (Eisenberger et al., 2003; Leary, 2015), but also because there are consequential outcomes tied to being favorably, or unfavorably, perceived. These outcomes are especially salient in the workplace, where being perceived positively is integral to achieving beneficial workplace relationships, social status, promotions and salary levels (Bendersky & Pai, 2018; George et al., 2016; Ng et al., 2005; Venkataramani et al., 2013).

If we really are all actors, acutely aware that we are being perceived in social and workplace settings, keenly concerned with the content and consequence of those perceptions,

then the question arises – are different actors playing the same role perceived the same way? And, turning to examine the audience, how do different viewers perceive the same portrayal?

My dissertation examines these questions at a time when the figurative stages of our workplaces are increasingly surveilled and when our roles as employees are under heightened scrutiny.

Workplaces have begun to resemble platforms and town halls for organizations and individuals to publicly voice their stance on pressing issues. Companies and employees are increasingly speaking up about contentious and politicized topics, such as social inequality, identity-based violence, gender disparities, and racial discrimination (e.g., Cassidy & Kempf, 2025; Vredenburg et al., 2020). The increased attention on these topics has elevated workplace voice behaviors from relatively mundane organizational acts to visible, high-stakes opportunities. These opportunities are double-edged, carrying the potential for gaining favorable perceptions and the risk of being seen poorly (e.g., Bergeron & Thompson, 2020; Fuller et al., 2007; Isaakyan et al., 2021).

Individual employees who speak up about contentious and difficult issues must contend with the potential risks that come with being perceived poorly or failing to speak appropriately. These risks include not only missing out on the benefits of being perceived favorably, but also the objective loss of employment and subjective loss of being well-regarded (Garden, 2022; Saldanha et al., 2022; Vogels et al., 2021). Further, there is no foolproof script that all companies or employees can rely on to guarantee a successful or risk-free voicing strategy that their audience – colleagues, stakeholders, customers – approves of. Instead, employees and companies must consider their traits as speakers, such as their demographic or brand identity, associated stereotypes, and legitimacy and domain expertise in speaking up about any given topic. They

must also carefully craft their message, weighing different approaches to the content, tone, and delivery of their voice.

In my dissertation, I explore this challenge faced by companies and employees who use the workplace as a platform to speak up about contentious topics and who take on the potential risk of unfavorable perceptions in doing so. I focus on messengers with different identity traits and messages that communicate about race, gender, inequality, and representation. I seek to understand how both the messenger (the “actor”) and their message (the “part”) are perceived, examining perceptions related to messenger motivation and message likeability and persuasiveness.

In Chapter 1, published in *Personality and Social Psychology Bulletin*, I focus on perceptions of the messenger. I ask and answer three critical questions: How are individuals who speak up about inequality at work perceived in terms of their motivation, namely, their self-interest and other-interest? To what extent are these perceptions different for a messenger with a socially dominant identity versus a non-dominant identity? And how do these perceptions of the messengers change when we tailor the content and tone of their message? This chapter presents a theoretical argument and associated empirical support that discordance between a messenger’s identity and their message content leads to unfavorable perceptions of motivation, which can be improved if messengers reduce the discordance by altering the message framing.

In Chapter 2, published in *Communications Psychology*, I shift the focus away from perceptions of the messenger and onto perceptions of the message. Specifically, I ask: How are messages that depict models with marginalized identities in social and workplace settings perceived? How do these perceptions change if the models are portrayed in line with commonly-held stereotypes or deviate from such stereotypes – and if the portrayals expand to feature

socially dominant racial identities? I examine the evaluations of these messages given from audiences who hold politically conservative and politically liberal ideologies.

Taken together, my dissertation investigates the complexity and risk in communicating contentious topics at work, placing center stage the influence that messenger identity and message framing exert on the way workplace voice is perceived. Across two chapters, I examine how these factors shape motivational attributions, liking and attitudes, and behavioral responses. In doing so, this work contributes theoretically to the intersection of voice, identity, and social perception research and asserts the need for employees and companies to consider not only who speaks up, but how they do so and what they say – because in today’s increasingly polarized and scrutinized workplace, no actor steps onto the stage without an audience ready to judge the performance.

CHAPTER 1

Messenger-Message Discordance: When Presenting Workplace Disparities, *Who* Speaks Up (and *How*) Matters for Other-Interest and Self-Interest Attributions

Elizabeth Q. Jiang

Sherry J. Wu

Data collection for all studies was approved by the University of California, Los Angeles (UCLA)'s Office of the Human Research Protection Program (OHRPP) (Institutional Review Board Number #20-000319). All studies are pre-registered. Pre-registration documents and study materials for all studies are available on OSF: <https://osf.io/y3bks/>.

Messenger-Message Discordance: When Presenting Workplace Disparities, *Who* Speaks Up (and *How*) Matters for Other-Interest and Self-Interest Attributions

Abstract

Sharing messages about group-based disparities is an important strategy for raising awareness. However, not all messengers are evaluated alike. We predict that perceived motivations of messengers depend on *who* they are and *how* they speak up. Across one pilot and three preregistered experiments ($N = 2240$), we show when messengers present group-based disparities in the workplace, their demographic identity and their message content jointly influence how they are perceived regarding self-interest and other-interest motives. We find a negative messenger-message discordance effect: White men are generally viewed as less other-interested and more self-interested than Black and female messengers when presenting statistics-only messages on workplace disparities. However, incorporating explicit personal advocacy against inequality mitigates less favorable interest perceptions for White men, and boosts perceived other-interest for all messengers. The study further explores qualitative responses on motivation and provides insights into the nuanced dynamics of messenger perceptions considering demographic identities and message content.

Keywords: voice, other-interest and self-interest, social identity, workplace disparities, advocacy

Introduction

Voicing on the state of race- and gender-based group disparities, ranging from salary and wages to employment and promotions, is an important strategy of raising awareness in the workplace. Voicing, which takes the form of presenting and sending verbal or written messages, can raise awareness, call attention to the messages at hand, enable employees to publicly represent issues, and call for action in advocacy or allyship efforts such as changing the status quo or addressing group-based disparities (LePine & Van Dyne, 1998; Morrison, 2011). Voicing to raise awareness is a more accessible or trainable tool for potential allies and advocates in many organizational contexts, compared with relatively high-cost means such as boycotting and protesting (Farh & Chen, 2018; Fisher & Spiro, 2010; Morrow et al., 2016). However, there is often tension between different types of voicing approaches, specifically between the efficacy of speaking up with informational and “objective” facts versus speaking up with personal and “subjective” narratives (Callaghan et al., 2021; Haaland et al., 2023; Peters, 2001; Tilcsik, 2021).

In addition to the tension of the presented *content*, the potential effect of *who* is delivering the message on group-based workplace disparities has been understudied in psychological and organizational literature. The concerns around *who* should speak up and *what content* they should present may cause potential allies to keep quiet and not voice themselves as advocates out of fear of being seen as using the wrong voicing approach, speaking inappropriately, or receiving unfavorable evaluations and perceptions from others (Imran et al., 2023; Morrow et al., 2016; Premeaux & Bedeian, 2003; Schwappach & Gehring, 2014).

On the one hand, some research suggests that dominant group members (i.e., individuals who belong to groups with greater societal power and advantage, such as White men in the U.S. workplace) are perceived as being impartial and treated more favorably when they promote

diversity at the workplace. Recent studies examining racial disparities in the workplace found that White advocates are perceived as less self-interested than Black advocates (Gardner & Ryan, 2020), that White journalists are seen as less biased than Black journalists (Torrez et al., 2024), and that White male leaders are the least penalized in performance ratings for promoting workplace diversity compared with non-white and female leaders (Hekman et al., 2017). Further, researchers from marginalized groups who study group-based prejudice or other topics related to their own social identity are perceived to have a personal agenda and to be less trustworthy or legitimate (Altenmüller et al., 2021; Thai et al., 2021).

On the other hand, research suggests that individuals who can speak about issues in which they have domain-specific knowledge (e.g., individuals of minority identities speaking about their own group-based disadvantages) are perceived to have more expertise, to be more persuasive, and to have greater legitimacy or psychological standing than those speaking about issues not related to their personal experience (e.g., White speakers talking about Black individuals' disadvantage) (Cialdini & Trost, 1998). For instance, recent work has shown that racial minorities are seen as having higher expertise in the domain of race and prejudice (Thai et al., 2021; Torrez et al., 2024), that individuals with stigmatized identities are perceived as more persuasive than non-stigmatized identities in identity-relevant contexts (Wallace et al., 2024), and that men report lower subjective legitimacy in gender-parity issues while marginalized individuals are seen to have greater psychological standing when working on identity-relevant prejudice (Sherf et al., 2017; Thai et al., 2021).

Thus, there is evidence supporting hypotheses in both directions regarding who might be perceived in a more favorable light (e.g., more legitimacy and less bias) when speaking up against group-based workplace disparities.

In our research, we augment past work that examined differences in general perceptions of messengers by focusing our scope on messengers' perceived motivation. We seek to better understand the perceived motivation of messengers who voice up on group-based disparities in the workplace. Two primary motives for speaking up about group-based disparities are self-interest and other-interest, which have broad behavioral implications such as altruism, cooperation and competition (Gerbasi & Prentice, 2013). Investigating messengers' motivation and underlying interests is needed and might clarify any differences in the perceptions of demographically varying messengers who present on group-based disparities. Understanding whether a messenger is seen as voicing up for the interest of the *self* or for the interest of *others* can advance research on the holistic motivational perceptions associated with race- and gender-based advocacy in the workplace.

In the present work, we conduct a series of preregistered experiments to study how different identities of the messenger (i.e., White/Black, male/female) and different ways of voicing (i.e., statistical information versus explicit personal advocacy) affect our perceptions of self-interest and other-interest for those who speak up on group-based disparities.

Social Identity and Person Perceptions: Self-Interest and Other-Interest

As social beings, we are constantly observing, interpreting, and sense-making about the people who occupy the space or speak up around us (Maitlis, 2005; Weick et al., 2005; Wu & Cai, 2023). We make inferences and attributions about other people when we observe them behaving. As such, when an individual shares a message on a highly charged issue, many of us will inevitably wonder, care, or think about why this person is sharing this message: Are they doing it out of interest for themselves? Are they doing it to promote the welfare of others?

Self-interest and other-interest are fundamental motives that have been demonstrated to be independent constructs with distinct predictions of self-values and behaviors (Gerbasí & Prentice, 2013; Howell et al., 2015; Li et al., 2021; Stoeber, 2015). An individual may be high in both self-interest and other-interest, higher in one over the other, or low in both in any given behavior or scenario. Previous research generally holds an implicit assumption that high self-interest implies low other-interest, such that high self-interest is considered the opposite of altruism. However, according to the theory that self-interest and other-interest are distinct constructs, it is possible to have relatively high levels of both self-interest and other-interest in the sense that an individual cares about themselves and others to an equal extent. Moreover, self-interest and other-interest predict behaviors in distinctive ways. For example, higher self-interest scores predict more competitive behaviors that benefit the self, while higher other-interest scores predict more cooperative choices that benefit others (Gerbasí & Prentice, 2013). Overall, being high in other-interest may lead to favorable perceptions of an individual, while being high in self-interest and low in other-interest typically leads to unfavorable perceptions.

Self-interest and other-interest as underlying motivations can be conveyed through behaviors meant to persuade. It is possible that socially dominant individuals—namely, White men—may receive more favorable or higher other-interested motivational attributions due to their position in society and relation to group-based disparity. Past research on the attributional analysis of persuasion suggests that message expectancy influences persuasiveness, such that the less expected a messenger's position given their personal and situational characteristics (e.g., a White man advocating for diversity), the stronger the subsequent persuasiveness (Eagly & Chaiken, 1998; Eagly et al., 1978). Recent work has shown that non-dominant employees (i.e., women and racial minorities) are penalized more severely compared to White male employees in

situations wherein the individual advocates for diversity programming (Gardner & Ryan, 2020; Hekman et al., 2017), presumably because the White male employee is seen to be other-serving while the non-dominant employees are seen to be self-serving when it comes to promoting diversity.

Similarly, research on racial minority advocates has shown that non-dominant individuals fear being perceived as biased or exhibiting favoritism when considering speaking up or advocating for demographically similar others (Duguid et al., 2012; Loyd & Amoroso, 2018), and that they are indeed perceived as less objective, less trustworthy, and more biased (Thai et al., 2021; Torrez et al., 2024). Further, because White men are typically considered high-status and socially dominant group members (Berger et al., 1977), they are accordingly attributed higher warmth and competence ratings (Fiske et al., 2002), as well as higher persuasiveness abilities when advocating for a cause that extends beyond their direct benefit (Trump-Steele, 2015). Overall, this would suggest that non-dominant individuals, compared to socially dominant individuals, will be rated more unfavorably and higher in self-interest when advocating against group-based disparities. Given that self-interest and other-interest act as driving motivations for behavior (Ratner & Miller, 2001; Gerbasi & Prentice, 2013), this suggests that when demographic concordance exists between an individual and the subject of their message (as is the case when women and racial minorities share statistics on gender- and race-based workplace disparities), then the concordant messenger may be perceived less favorably in terms of motivation—specifically, the messenger may be perceived to be more self-interested and less other-interested.

However, demographic concordance may conversely afford more favorable motivational attributions—specifically, higher other-interest and lower self-interest perceptions—of the non-

dominant messenger. Non-dominant individuals are more likely to have had direct experience with disparity or inequality and thus are more likely to be seen as an insider or expert on group-based disparities. Research on influence and persuasion finds that individuals sharing a message in which they have domain-related knowledge or experience are considered to be authority figures and are evaluated as being more credible and effective (Cialdini & Trost, 1998). Accordingly, since non-dominant employees are more likely to have personal experience related to the adversities of group-based disparities, such as harassment, subtle discrimination, lower earnings, and employment disadvantages (Berdahl & Moore, 2006; Deitch et al., 2003; U.S. Bureau of Labor Statistics, 2020; U.S. Census Bureau, 2020), they are more likely to be seen as relevant experts or insiders of inequality (e.g., Thai et al., 2021; Torrez et al., 2024, Wallace et al., 2024). Subsequently, non-dominant employees might benefit from these positive knowledge and expertise attributions when voicing race- and gender-based disparities at the workplace and when being evaluated on underlying motivations. If non-dominant employees frame their messages around disadvantage, then they may garner greater support for equality from outsiders (Dietze & Craig, 2021) and may be perceived as being more other-interested, more in pursuit of addressing greater inequality, and less narrowly self-interested.

Alternatively, socially dominant employees have the least experience in inequality and would therefore be less trustworthy or persuasive when speaking up against inequality. Previous research shows that individuals who lack first-hand experience in a certain domain—such as men considering the discrimination faced by female employees—are lower in psychological standing (i.e., the subjective legitimacy to perform an action) (Miller & Effron, 2010; Sherf et al., 2017). Regarding race- and gender-based group disparities, the White male coworker (vs. non-dominant Black and female counterparts) would have less insider knowledge or first-hand

experience of discrimination, and thus would be perceived less legitimate in voicing these issues at the workplace. When White male coworkers do indeed voice on inequality issues, they may be seen as disingenuous, acting in a manner that appears other-interested despite primarily being self-interested. Taken together, this suggests an alternative hypothesis: more demographic concordance between messenger and message affords more favorable perceptions of the messenger's motivation, whereas less demographic concordance (i.e., demographic *discordance*) between messenger and message results in more unfavorable perceptions of the messenger's motivation.

Therefore, due to the breadth and depth of competing literature in the field, the direction in which we expect messenger demographics to differentially affect perceived motivation is mixed, and thus we are relatively more confident about the existence of a main effect (i.e., dominant and non-dominant messengers will be perceived differently) than the directionality of the main effect. Consequently, we predict two alternative hypotheses:

Hypothesis 1a (H1a): *Non-dominant messengers will be perceived more unfavorably (i.e., more self-interested and less other-interested) than their socially dominant counterparts when delivering the same informational message on group-based disparity.*

Hypothesis 1b (H1b): *Non-dominant messengers will be perceived more favorably (i.e., more other-interested and less self-interested) than their socially dominant counterparts when delivering the same informational message on group-based disparity.*

Attenuating Messenger-Message Discordance Using Explicit Advocacy Narratives

We posit that *who* voices *what* content matters for motivational attributions. How might self-interest and other-interest perceptions change when altering these factors? Hypotheses 1a and 1b predict the effects of manipulating messengers' racial and gender identity on motivational attributions. Next, we focus on changing the message content presented by the messengers. We investigate *what* the messengers say, predicting that altering the content of their message on group-based disparities will affect perceived other-interest and self-interest. We hypothesize that adding explicit personal advocacy¹ into the informational message will boost the perceived motivation of discordant dominant messengers, but will have a minimal effect on the perceived motivation of concordant non-dominant messengers. Thus, if there are more unfavorable effects of messenger-message discordance for the dominant messenger compared with messenger-message concordance for the non-dominant messenger (i.e., if we find support for H1b), then we expect that the injection of explicit personal advocacy will mitigate the unfavorable low other-interest and high self-interest perceptions of the dominant messenger, thus bringing the motivational attributions of the socially dominant messengers closer to those of the non-dominant messengers.

Our hypothesized positive effect of injecting advocacy narratives aligns with past work of interdisciplinary scholars, who have argued and demonstrated that active anti-racism through narrative personal advocacy is effective not only in countering unfavorable attributional outcomes, but also in promoting issues on disparity and inequality (Kendi, 2019; Michie et al., 2018; Moyer et al., 2020; Trevisan, 2017). We theorize that injecting explicit personal advocacy will indicate and clarify the messenger's intention. Whereas the statistical and purely informational baseline message (as specified in H1a-b) carries some ambiguity about the

¹ We define *explicit personal advocacy* as unambiguous expressions of a personal stance against disparities and inequality.

messenger's intention and motivation, the explicit advocacy injection into the baseline statistics-only message more clearly conveys advocacy intentions and motivations from the messengers. Reading the baseline informational message, a viewer may wonder and be unsure of why the messenger is sending such a neutral or "objective" message, whereas a viewer receiving an advocacy-injected message may be more likely to find the messenger's intention clearly expressed.

While genuine advocacy injection may perhaps be a generally effective strategy for all messengers, we expect that its positive effect on other-interest and self-interest ratings for White men will be particularly strong, as it is these socially dominant messengers that have the messenger-message discordance to bridge. For White men voicing on group-based workplace disparities, we predict that providing additional context in the form of explicit personal advocacy will lead to more positive perceptions and enhanced other-interest and self-interest ratings. By adding the personal advocacy, White men are effectively reducing the messenger-message discordance, because they are making the message more relevant to their otherwise discordant messenger identity. As such, we hypothesize:

Hypothesis 2a (H2a): *Dominant messengers who include explicit personal advocacy on top of the informational message on group-based workplace disparities will be perceived more similarly in other-interest and self-interest compared with their non-dominant counterparts (i.e., dominant messengers will attenuate any negative perceptions via inclusion of explicit personal advocacy).*

Meanwhile, for non-dominant messengers who already have inherent messenger-message concordance, we predict that there will be no clear effect of adding explicit personal advocacy on

other-interest and self-interest ratings. In fact, from previous literature, adding explicit advocacy against group-based disparities might imply a vested interest for minority group members (Thai et al., 2021). Taken together, we preregistered a null effect of adding explicit advocacy on other-interest and self-interest ratings for non-dominant messengers:

Hypothesis 2b (H2b): *Non-dominant messengers who include explicit personal advocacy on top of the informational message on group-based workplace disparities will receive no significant changes in other-interest and self-interest ratings compared to non-dominant messengers who share purely informational messages.*

The present work investigates how socially dominant versus non-dominant messengers are perceived in terms of motivational attributions—namely, self-interest and other-interest—when sharing purely informational vs. advocacy-injected content on race- and gender-based workplace disparities. In Study 1, we test for a main effect of messenger dominance on perceived self-interest and other-interest (H1a and H1b), in the context of sharing a purely informational message containing statistics on group-based workplace disparities. In Study 2, we present the advocacy-injected condition, which incorporates a firm personal stance on top of the statistical information on race- and gender-based disparities. We compare how different message content changes the perceptions of messenger self-interest and other-interest. In Study 3, we replicate the effectiveness of the advocacy-injection condition and conduct a qualitative analysis of motivational attributions with a field sample of executive MBAs. In each study, we report how we decided on sample sizes using a priori power calculations accompanied by sensitivity analyses. No statistical analyses were conducted during data collection. For each study, all manipulations, measures, and exclusions are reported. All data and materials are either reported

in this manuscript or can be found in the preregistered OSF project directory (<https://osf.io/y3bks/>).

Pilot Study

We created messenger profiles in which the race and gender of the messenger were manipulated in a workplace context, for a 2 (messenger race: White, Black) x 2 (messenger gender: male, female) factorial between-subject design. We conducted the Pilot Study with 138 full-time U.S. employees on TurkPrime to test the messenger profile stimuli that would be used in our subsequent experiments; these profile stimuli were pre-tested for equivalence on attractiveness and perceived age by independent research assistants. We selected employee profiles that were equivalent in terms of the main dependent variables in the following studies—other-interest and self-interest ratings—to rule out the possibility that any observed differences in interest ratings were driven by artefacts. See Appendix A and Figure A1 for full pilot results.

Study 1

Study 1 tested our primary research question of whether non-dominant individuals (i.e., Black and/or female individuals) will be perceived differently in self-interest and other-interest compared to their socially dominant counterpart (i.e., White males) when delivering the same informational message on group-based disparities in the workplace. We showed participants a constant email newsletter that provided a message of race- and gender- based workplace disparities. We manipulated the race and gender of the messenger who volunteered to author and send the email newsletter, using the employee profiles tested and found to have no significantly different ratings in the Pilot Study.

Method

Participants

We recruited U.S. adults on TurkPrime who had not participated in the previous Pilot Study. As preregistered, participants were removed from data analysis if they did not pass any attention or manipulation check questions. A total of 662 participants were recruited and the final sample consisted of 582 individuals (75.3% White, 9.8% Black, 7.4% Asian, 5.2% Hispanic, 0.3% American Indian or Alaska Native, 0.2% Native Hawaiian or Pacific Islander, 1.9% Other; 44.3% Female; $M_{\text{age}} = 39.2$ years, $SD_{\text{age}} = 11.8$ years, $\text{Range}_{\text{age}}$: 18 to 77 years). The final sample size of 582 meets the required a priori sample size needed for a one-way ANOVA with 4 groups to detect a minimum effect of $f = 0.25$ (partial $\eta^2 = .06$) with 95% power under a 0.05 alpha error probability (Faul et al., 2009). Given our sample size, a one-way ANOVA with 4 groups would be sensitive to effects of Cohen's $f = 0.14$ (partial $\eta^2 = .02$) with 80% power ($\alpha = .05$). We used a mini meta-analysis approach for Study 1, merging two identical preregistered studies into a single study to improve statistical power and readability (Goh et al., 2016).² The separate studies yielded consistent results when analyzed alone (see further supplementary materials online at: <https://journals.sagepub.com/doi/10.1177/01461672251338679>).

Procedure

Participants were asked to imagine that they worked at a company with many other colleagues. They were told that their company sends company-wide email newsletters, entitled “Community Newsletters,” to every employee each month and that each monthly newsletter was written by a hypothetical coworker who had volunteered to write any message of their choosing. We selected company-wide email newsletters as our channel to share workplace disparity

² We follow this mini meta-analysis approach for Study 2 as well. Note: In our materials hosted on OSF, preregistrations documents are named in reference to their original study number. As such, this paper's Study 1 consists of OSF Study 1 and OSF Study 2; Study 2 consists of OSF Study 3 and OSF Study 4; Study 3 refers to OSF Study 5. We retain the original OSF preregistrations and their study numbers as this is the most transparent record of our study chronology. We report methods and results for each individual OSF study in online supplementary appendices at <https://journals.sagepub.com/doi/10.1177/01461672251338679>.

messages given how commonplace email newsletters are as an intra-firm communication channel for announcements and information sharing—analogous to the use of workplace bulletin boards, company blogs, employee forums, and the like. Additionally, the increased popularization of digital communication in pandemic-driven remote work and increased attention given by employees and firms to socioeconomic and sociopolitical issues over the past few years lend enhanced external validity to the newsletter stimuli.

Participants were randomly assigned to one of the four messenger conditions: *White Male* (WM), *White Female* (WF), *Black Male* (BM), or *Black Female* (BF). They were shown the Employee Profile of their assigned condition (as tested in Pilot Study) and the same Community Newsletter on workplace disparities and inequalities. The Community Newsletter included real workforce statistics conveying race- and gender-based inequality. For the statistical information, we presented two side-by-side figures illustrating a recent race-disparity finding from the Bureau of Labor Statistics (“According to the Bureau of Labor Statistics, unemployment breakdown by race is as follows: Whites (3.3%) and Blacks (6.1%) (for the year 2019)”) and a gender-disparity finding from the U.S. Census Bureau (“According to the U.S. Census Bureau, households headed by men have an average yearly income of \$88,182 and households headed by women have an average yearly income of \$64,470) (for the year 2019)”). All Community Newsletters presented the same statistical information on race and gender disparities, differing only in email signature (name and fictional email address) (see Appendix Table A1 for study stimuli).

Measures

Other-Interest and Self-Interest. After exposure to stimuli, participants responded to preregistered survey measures on self-interest and other-interest of the messenger who shared the Community Newsletter.

Specifically, participants were asked to report their perceptions of the messenger's concern for others (other-interest) and concern for themselves (self-interest) based on a first impression reading the Community Newsletter. We adapted a total of 21 items from previous work and existing self-interest and other-interest scales (Clary et al., 1998; Gardner & Ryan, 2020; Gerbasi & Prentice, 2013; Tseng & Fan, 2011). For example, items for self-interest include "[Name] is keeping an eye out for [his/her] interests" and "[Name] prioritizes [himself/herself] over others"; items for other-interest include "[Name] is actively concerned about other's interests" and "[Name] feels compassion toward people in need." A 6-point Likert scale was used (1 = *not at all* to 6 = *extremely*). See Appendix A for the full scale (Note A1, Note A2, and Table A2) and for correlations among key measures (Table A3). At the end of the survey, participants were asked for their demographic information, including race, gender, age, and highest level of education achieved.³

Analysis Plan

To test our hypotheses in Study 1, we first evaluated main effects. We ran confirmatory one-way analyses of variance (ANOVAs) to test for differences in other-interest and self-interest by messenger condition. As preregistered, we analyzed messenger conditions as four distinct messengers (i.e., *White Male*, *White Female*, *Black Male*, *Black Female*); this distinction of four messenger conditions was also preregistered in Study 2, while in Study 3 we preregistered

³ We also measured other variables on person perception and persuasiveness of messengers that are not our primary interest. Person perception measures included perceived trustworthiness (e.g., "To what extent do you find [Name] trustworthy?"), authenticity (e.g., "To what extent do you find [Name] authentic?"), and truthfulness (e.g., "How misleading do you perceive [Name]'s newsletter statistics to be?"). We measured persuasiveness of the messengers through downstream beliefs regarding inequality and diversity, such as "To what extent do you agree with the following statement: It is important to treat all individuals as equals, no matter who they are," "...I am very disturbed by the amount of economic inequality in the world today," and "...It is more efficient for a team to solve issues when there is less diversity in the teammates" (reverse coded). We found no significant differences between messenger conditions on these items. For all survey items, please see the full survey instrument on OSF. See online supplementary materials (<https://journals.sagepub.com/doi/10.1177/01461672251338679>).

analyzing messenger conditions as two groups (i.e., *Non-Dominant*, *Dominant*). We followed up on our confirmatory one-way ANOVAs with Tukey's Honest Significant Differences (Tukey HSD) pairwise difference tests. In Studies 1-2, we also reported exploratory independent *t*-tests using two messenger conditions distinguishing non-dominant messenger versus dominant messenger. Then, we evaluated interactions. For Study 1, we conducted an exploratory two-way factorial ANOVA to examine the interaction effect of messenger race and messenger gender on our dependent variables. We followed up on these interaction results with simple effects analyses. The exploratory two-way factorial ANOVA for Study 1 are reported in the online supplementary materials (<https://journals.sagepub.com/doi/10.1177/01461672251338679>).

We adhered to this streamlined analysis plan for all studies in the current work. As such, in Studies 2-3, we first explored interaction effects in two-way factorial ANOVAs (messenger condition x newsletter type) and then examined interaction effects in exploratory three-way factorial ANOVAs (messenger race x messenger gender x newsletter type). We followed up on all interaction results with simple effects analyses. The exploratory three-way factorial ANOVAs for Study 2 and Study 3 are reported in the online supplementary materials.

Results

Confirmatory One-Way ANOVAs

To test Hypothesis 1a and 1b, we conducted a preregistered one-way ANOVA to examine whether the four messenger conditions would receive different other-interest and self-interest perceptions. We separately analyzed participants' other-interest and self-interest ratings of the messengers, using the 11-item index on other-interest ($\alpha = .83$) and the 10-item index on self-interest ($\alpha = .79$).

Other-interest measure. We found significant differences in other-interest perceptions between our four conditions ($M_{BF} = 4.96$, $SD_{BF} = 0.85$; $M_{BM} = 4.99$, $SD_{BM} = 0.72$; $M_{WF} = 4.92$, $SD_{WF} = 0.74$; $M_{WM} = 4.57$, $SD_{WM} = 0.89$; $F_{(3, 577)} = 8.66$, $p < .001$, partial $\eta^2 = .04$). See Figure 1-1 Panel A for a mean plot of other-interest perceptions for each messenger condition.

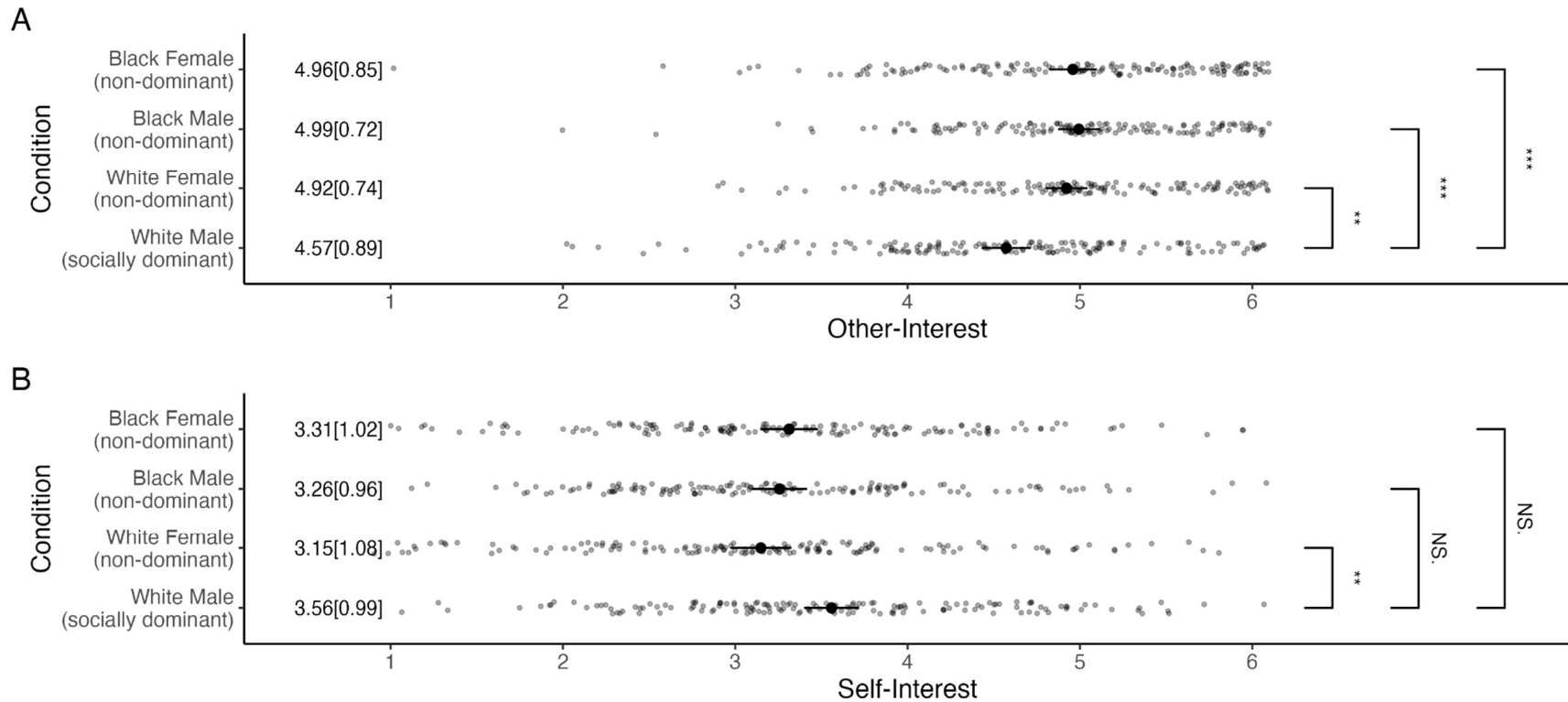
To further understand the difference between conditions on perceptions of messengers' other-interest, we conducted a post-hoc Tukey HSD multiple pair-wise difference test. The Tukey HSD test indicated that the *White Male* condition was rated much less other-interested than the other non-dominant messenger conditions (p 's $< .01$). Specifically, we found significant differences in other-interest between *White Male* and *Black Female* ($p < .001$, $d = 0.44$), between *White Male* and *Black Male* ($p < .001$, $d = 0.52$), and between *White Male* and *White Female* ($p = .001$, $d = 0.43$). There were no differences between the three non-dominant messengers' other-interest ratings in any pairwise comparisons (p 's $> .10$).

Further, we conducted an exploratory independent t -test in which we compared the dominant *White Male* condition to a merged *Non-Dominant* (ND) messengers condition (i.e., a merged group of *Black Male*, *Black Female*, and *White Female* conditions).⁴ We found that the dominant *White Male* messenger was rated significantly less other-interested than the *Non-Dominant* messengers ($M_{WM} = 4.57$, $SD_{WM} = 0.89$, $M_{ND} = 4.96$, $SD_{ND} = 0.77$; $t_{(233)} = 4.73$, $p < .001$, $d = 0.48$).

⁴ This group-wise comparison was mentioned in the research question and hypothesis section of our preregistration but was not explicitly specified in our pre-analysis plan, thus we refer to this grouping of conditions as exploratory in Study 1 and Study 2. For Study 3, we preregistered and report confirmatory analyses between non-dominant messenger conditions versus dominant messenger condition.

Figure 1-1

Other-Interest and Self-Interest Mean Plots (Study 1, n = 582)



Note. This figure shows the mean other-interest (Panel A) and mean self-interest scores (Panel B) from each messenger condition. We found that the socially dominant White male messenger is evaluated as less other-interested and more self-interested than his non-dominant peers, and that the non-dominant messengers were not statistically different from each other in other-interest or self-interest. Error bars represent 95% confidence intervals.

Self-interest measure. We also found significant differences in self-interest perceptions ($M_{BF} = 3.31$, $SD_{BF} = 1.02$; $M_{BM} = 3.26$, $SD_{BM} = 0.96$; $M_{WF} = 3.15$, $SD_{WF} = 1.08$; $M_{WM} = 3.56$, $SD_{WM} = 0.99$; $F_{(3, 577)} = 4.36$, $p = .005$, partial $\eta^2 = .02$) between the four conditions. See Figure 1-1 Panel B for a mean plot.

To probe our findings on self-interest, we conducted a post-hoc Tukey HSD test and found that the dominant *White Male* messenger was rated more self-interested than the *White Female* messenger ($p = .003$, $d = 0.40$). There was no significant difference between *White Male* and *Black Female* ($p = .155$) or between *White Male* and *Black Male* messengers ($p = .055$); and no significant differences were detected between *Black Female* and *Black Male* ($p = .966$), *Black Female* and *White Female* ($p = .509$), or *Black Male* and *White Female* ($p = .803$) conditions. In an exploratory independent *t*-test wherein we compared the *White Male* condition to the merged *Non-Dominant* condition, we found that the dominant *White Male* messenger was rated significantly more self-interested than *Non-Dominant* messengers ($M_{WM} = 3.56$, $SD_{WM} = 0.99$, $M_{ND} = 3.24$, $SD_{ND} = 1.02$; $t_{(267)} = 3.38$, $p < .001$, $d = 0.32$).

Exploratory Factorial ANOVAs

We also conducted exploratory two-way ANOVAs examining the effect of *messenger race* (Black, White) and *messenger gender* (female, male) on our dependent measures. The results were consistent in that the *White Male* messenger was rated significantly lower in other-interest and higher in self-interest. We report these results in the online supplementary materials.

Study 1 Results Discussion

Overall, results from our preregistered (i.e., confirmatory) one-way ANOVA that compared four messenger conditions on other-interest are consistent with additional exploratory

factorial ANOVAs such that we found a robust pattern wherein the White male messenger is perceived lower in other-interest than his counterparts.

Study 1 finds that messengers' perceived motivation varies based on their demographic identities when they share purely statistical or "objective" information on group-based disparities. Counter to Hypothesis 1a and in support for Hypothesis 1b, we find that the White male messenger is perceived as significantly less other-interested and more self-interested than messengers with non-dominant social identities. Specifically, White male messengers are seen as less interested in other people's welfare, less altruistic, and less concerned about workplace justice than socially non-dominant messengers in the context of sharing statistical information on group-based disparities. This story largely carries over into the self-interest perceptions, in that the White male messenger was rated as the most self-interested out of all messengers. We did not find that individuals from non-dominant social identity groups faced less favorable ratings in terms of other-interest and self-interest perceptions. Because other-interested orientations place the goals, achievements, happiness, and general consideration of others before oneself, other-interest has a highly positive and favorable connotation to it (Gerbasí & Prentice, 2013). In short, our findings from Study 1 suggest that White male messengers are perceived as being lower in other-interest, implying less favorable motivational attributions, compared with non-dominant messengers in the context of sharing and disseminating messages of group-based workplace disparity.

Following these findings, we propose that there may exist a messenger-message discordance effect wherein different messengers are attributed different perceptions based on the concordance (or lack thereof) between their social identity and the focal group in their message. Study 1 shows support for a negative messenger-message discordant effect: the White male

messenger whose identity is discordant with the disadvantaged groups in the statistics-only inequality newsletter is given a lower other-interest perception compared with all other messengers whose identity overlaps with some component of the disadvantaged groups in the disparity statistics. Our next study aims to replicate the negative messenger-message discordance effect and to examine a potential strategy to mitigate the discordance.

Study 2

We conduct Study 2 to replicate the messenger-message discordance effect established in Study 1 and to test what might mitigate the negative consequences of such an effect (i.e., unfavorable motivational attributions in the form of reduced other-interest perceptions and increased self-interest perceptions for White male messengers). In Study 2, we test Hypotheses 2a-b and propose that discordant messengers who explicitly state their advocacy intentions will reduce the lowered other-interest perceptions attributed to them. The more discordant (i.e., the more distant) an individual's identity demographics are from those they advocate for, the more important it is for that speaker to explicitly state their advocacy intentions in order to reduce the negative effects of discordance and to be seen in a favorable light. Study 2 adopts an independent factorial design, manipulating both the social group identity of the messengers (i.e., White male vs. Black and/or female) and the content of the messages (i.e., statistics-only vs. advocacy-injected message).

Method

Participants

We recruited 1,533 U.S. adult participants who had not participated in previous studies. As preregistered, participants were excluded from data analysis if they did not pass any attention or manipulation check questions. The final sample consisted of 1,334 adults from TurkPrime

(73.2% White, 9.4% Black, 7.9% Asian, 7.0% Hispanic, 0.5% American Indian or Alaska Native, 0.1% Native Hawaiian or Pacific Islander, 1.9% Other; 52.1% Female; $M_{\text{age}} = 41.5$ years, $SD_{\text{age}} = 12.8$ years, Range_{age}: 18 to 84 years), which meets the minimum sample size we required from our 95% power analysis for an effect of $f = 0.25$ (partial $\eta^2 = .06$) under a 0.05 alpha error probability for a one-way ANOVA with 4 conditions (Faul et al., 2009). Given our sample size, a factorial ANOVA with a 4 (messenger condition: *White Male* vs. *White Female* vs. *Black Male* vs. *Black Female*) x 2 (newsletter type: statistics-only vs. advocacy-injected) 8-cell design would be sensitive to effects of Cohen's $f = 0.08$ (partial $\eta^2 < .01$) for main effects with 80% power ($\alpha = .05$), and sensitive to effects of Cohen's $f = 0.09$ (partial $\eta^2 < .01$) for interaction effects with 80% power ($\alpha = .05$). Additionally, a factorial ANOVA with a 2 (messenger dominance: *White Male* vs. *Non-Dominant*) x 2 (newsletter type: statistics-only vs. advocacy-injected) 4-cell design would be sensitive to effects of Cohen's $f = 0.08$ (partial $\eta^2 < .01$) for main effects with 80% power ($\alpha = .05$), and sensitive to effects of Cohen's $f = 0.08$ (partial $\eta^2 < .01$) for interaction effects with 80% power ($\alpha = .05$).

Procedure

Study 2 follows a similar procedure as in Study 1. To test Hypotheses 2a-b, we varied the Community Newsletter from Study 1 to feature a version that contained a firm personal stance against disparity. In other words, we crossed the messenger identity (i.e., *White Male*, *White Female*, *Black Male*, *Black Female*) with message content (i.e., statistics-only vs. advocacy-injected statistics). Specifically, for half of the Community Newsletters, we added the hypothetical coworker's personal commentary and explicit advocacy for workplace equity after the same statistical information on workplace inequity: "As some of you may know, inequality is

an issue near and dear to my heart” and “...addressing group-based disparity is one of my personal missions.” See Appendix Figure A2 for the full advocacy-injected newsletters.

Measures

Study 2 focused on the same other-interest and self-interest measures as previous studies. Correlations among key measures are described in Appendix Table A4.

Results

Exploratory Two-Way Factorial ANOVAs

We first ran exploratory two-way factorial ANOVAs investigating the main effects and interaction effects of messenger condition (4 levels) and newsletter type (2 levels) on other-interest and self-interest measures.

Other-interest measure. On our other-interest index measure (11 items, $\alpha = .96$), we found a significant main effect of *messenger condition* ($M_{BF} = 4.85$, $SD_{BF} = 1.00$; $M_{BM} = 4.94$, $SD_{BM} = 0.86$; $M_{WF} = 4.89$, $SD_{WF} = 0.85$; $M_{WM} = 4.73$, $SD_{WM} = 0.99$; $F_{(3, 1325)} = 3.52$, $p = .015$, partial $\eta^2 < .01$) showing that there was an overall difference in other-interest ratings by messenger condition. Tukey HSD tests reveal a significant difference between the *White Male* messenger and the *Black Male* messenger conditions, wherein the *White Male* messenger received lower other-interest ratings than the *Black Male* messenger ($p = .014$, $d = 0.23$). No other pairwise differences between other conditions were significant (p 's $> .05$).

We also found a significant main effect of *newsletter type* ($F_{(1, 1325)} = 83.39$, $p < .001$, partial $\eta^2 = .06$), showing that the advocacy-injected (Adv) newsletter conditions ($M_{Adv} = 5.02$, $SD_{Adv} = 0.90$) were rated significantly higher in other-interest than the statistics-only (Stat) newsletter conditions ($M_{Stat} = 4.56$, $SD_{Stat} = 0.90$) overall.

Next, we found a significant interaction effect of messenger condition and newsletter type on other-interest ratings ($F_{(3, 1325)} = 5.81, p < .001$, partial $\eta^2 = .01$). Probing the significant interaction effect, simple effects analyses evaluating the effect of messenger condition at each level of newsletter type revealed no significant contrasts between any messenger conditions sending advocacy newsletters (p 's $> .10$), but there were significant contrasts between the *White Male* messenger and each of the three non-dominant counterparts when presenting statistical newsletters; in each case, the *White Male* messenger was rated significantly lower in other-interest than the non-dominant messengers: comparing *White Male* and *Black Female* messenger ($t_{(1325)} = 3.50, p = .003, d = 0.40$), *White Male* and *Black Male* messenger ($t_{(1325)} = 4.98, p < .001, d = 0.67$), and *White Male* and *White Female* messenger ($t_{(1325)} = 3.07, p = .012, d = 0.38$).

In simple effects analyses investigating the effect of newsletter type at each level of messenger condition, we found significant contrasts between advocacy-injected and statistics-only newsletters for the *Black Female* messenger ($t_{(1325)} = 3.11, p = .002, d = 0.36$), the *White Female* messenger ($t_{(1325)} = 4.20, p < .001, d = 0.59$), and the *White Male* messenger ($t_{(1325)} = 7.23, p < .001, d = 0.84$); in each case, messengers delivering the advocacy-injected newsletter received higher other-interest ratings than those delivering the statistics-only newsletter. There was no simple effect of newsletter type for the *Black Male* messenger ($t_{(1325)} = 1.58, p = .114$).

Messenger dominance. Further, given that our main hypotheses are on social dominance identities (i.e., White male vs. Black and/or female messengers) and we did not find significant differences among the three non-dominant groups,⁵ we collapsed the three *Non-Dominant* (ND) group identities into one group. This enabled us to conduct exploratory analyses that are directly

⁵ Running a Tukey HSD test, we found no significant pairwise difference in other-interest ratings between *Black Male* and *Black Female* ($p = .56$), *Black Male* and *White Female* ($p = .91$), or *Black Female* and *White Female* ($p = .92$) messenger conditions.

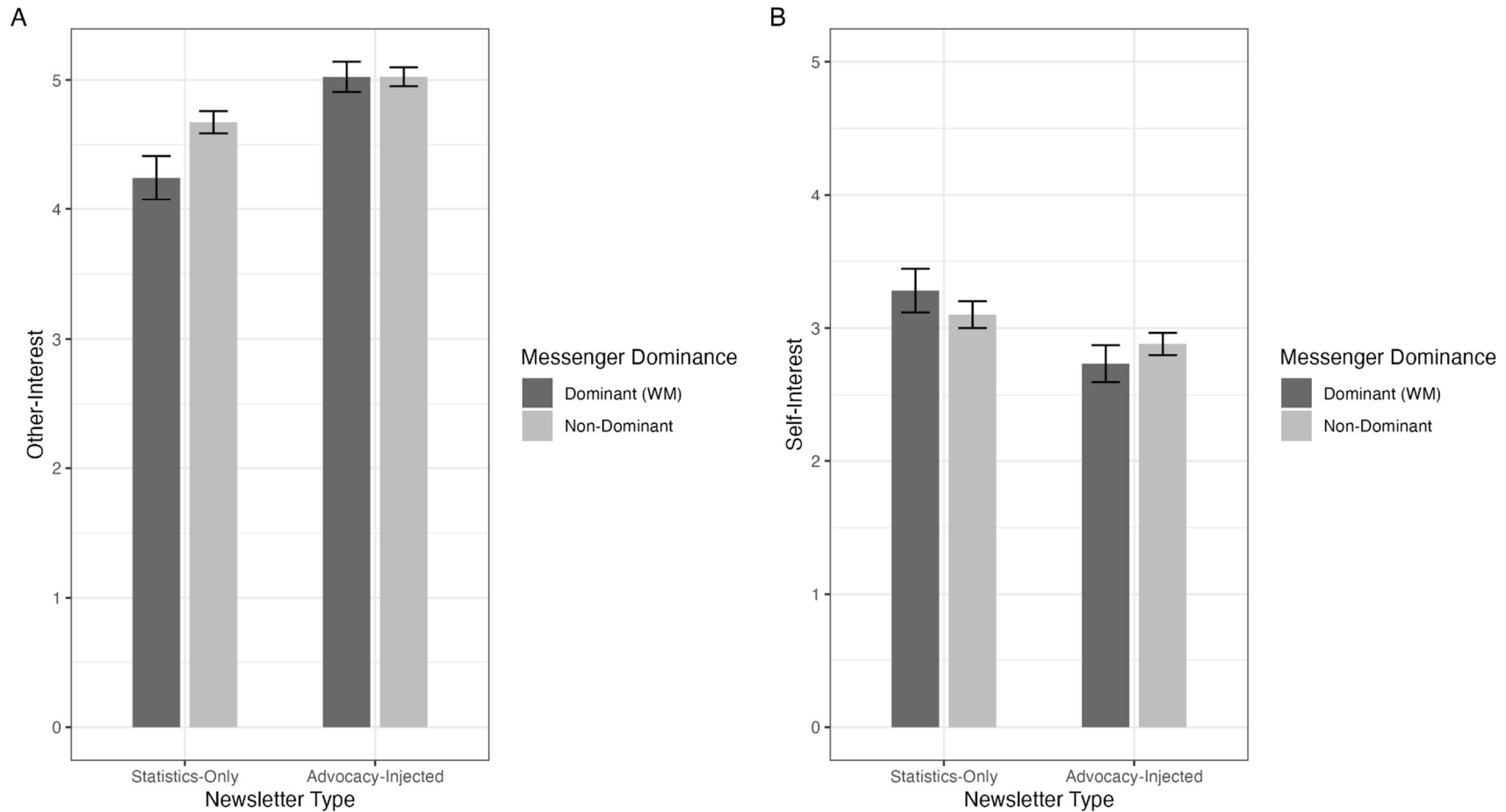
relevant to our research questions and hypotheses, but were not explicitly mentioned as preregistered analyses.

As such, we ran an exploratory 2 (*White Male* vs. *Non-Dominant*) x 2 (statistics-only vs. advocacy-injected) factorial ANOVA on our other-interest index measure (11 items, $\alpha = .96$). Replicating Study 1, we found a significant main effect of *messenger dominance* on other-interest ratings comparing socially-dominant *White Male* and *Non-Dominant* messengers, which showed that the *White Male* received lower other-interest ratings than *Non-Dominant* messengers overall ($M_{WM} = 4.73$, $SD_{WM} = 0.99$; $M_{ND} = 4.89$, $SD_{ND} = 0.91$; $F_{(1,1329)} = 8.73$, $p = .003$, partial $\eta^2 < .01$). We also found a significant main effect of *newsletter type* on other-interest comparing statistics-only (Stat) and advocacy-injected (Adv) newsletters, showing that advocacy-injected newsletters received higher other-interest ratings than statistics-only newsletters overall ($M_{Adv} = 5.02$, $SD_{Adv} = 0.90$; $M_{Stat} = 4.56$, $SD_{Stat} = 0.90$; $F_{(1, 1329)} = 83.65$, $p < .001$, partial $\eta^2 = .06$). Further, we found a significant interaction effect between messenger dominance and newsletter type on other-interest ratings ($F_{(1,1329)} = 13.72$, $p < .001$, partial $\eta^2 = .01$). See Figure 1-2 for mean plots.

Simple effects analyses showed no significant contrast between dominant and non-dominant messengers sending advocacy-injected newsletters ($t_{(1329)} = 0.04$, $p = .972$), but revealed a significant contrast between dominant and non-dominant messengers sending statistics-only newsletters such that the *White Male* messenger was rated lower in other-interest than *Non-Dominant* messengers ($t_{(1329)} = 4.74$, $p < .001$, $d = 0.47$); respectively, these findings provide further support for H2a and H1b. Evaluating the effect of newsletter type at each level of messenger dominance, we found significant contrasts between advocacy-injected and statistics-only newsletters sent by *White Male* ($t_{(1329)} = 7.22$, $p < .001$, $d = 0.84$) and sent by *Non-Dominant*

Figure 1-2

Other-Interest and Self-Interest Ratings by Messenger Dominance and Newsletter Type Conditions (Study 2, $n = 1,334$)



Note. Panel A shows the significant interaction effect between Messenger Dominance and Newsletter Type on other-interest ratings for Study 2 ($n = 1,334$). We find that all messengers, but especially the socially dominant *White Male* (WM) messenger, receive a boost in other-interest ratings when sending the advocacy-injected newsletter as opposed to the statistical information newsletter (Panel A). For self-interest ratings, there was a marginally significant interaction (Panel B). Error bars represent 95% confidence intervals.

messengers ($t_{(1329)} = 4.91, p < .001, d = 0.40$), thus supporting H2a; for both sets of messengers, the advocacy-injected newsletters were rated higher in other-interest than the statistics-only newsletters. Interestingly, even though we hypothesized a null effect in H2b for non-dominant messengers, we found that injecting advocacy increased other-interest perceptions for non-dominant messengers.

Self-interest measure. Next, we examined our self-interest index measure (10 items, $\alpha = .94$). We conducted an exploratory 4x2 factorial ANOVA to investigate the effects of messenger condition and newsletter type on self-interest.

First, we found a significant main effect of *messenger condition* on self-interest ratings ($F_{(3, 1325)} = 8.52, p < .001$, partial $\eta^2 = .02$). Tukey HSD tests showed that there were significant pairwise differences between the *Black Female* condition ($M_{BF} = 3.38, SD_{BF} = 1.14$) and each of the other messenger conditions ($M_{BM} = 3.04, SD_{BM} = 1.17, M_{WF} = 2.97, SD_{WF} = 1.13, M_{WM} = 3.08, SD_{WM} = 1.13; p's < .003$); overall, the *Black Female* messenger received higher self-interest ratings than other messengers, regardless of newsletter type. Pairwise differences between the *Black Male*, *White Female*, and *White Male* messenger conditions were not significant ($p's > .05$).

Second, we found a significant main effect of *newsletter type* on self-interest ratings ($F_{(1, 1325)} = 21.49, p < .001$, partial $\eta^2 = .02$), illustrating that advocacy-injected newsletters were rated significantly lower in self-interest than statistics-only newsletters, regardless of the messenger identity ($M_{Adv} = 3.01, SD_{Adv} = 1.18; M_{Stat} = 3.31, SD_{Stat} = 1.08$).

Third, we found no significant interaction effect of our two factors on self-interest ($F_{(3, 1325)} = 1.62, p = .182$).

Messenger dominance. Following our analysis plan, we examined conditions distinguished by social dominance. We conducted an exploratory 2x2 factorial ANOVA investigating the effect of messenger dominance and newsletter type on self-interest. We did not find a significant main effect of *messenger dominance* on self-interest comparing socially-dominant *White Male* and *Non-Dominant* messengers ($M_{WM} = 3.08$, $SD_{WM} = 1.13$; $M_{ND} = 3.14$, $SD_{ND} = 1.16$; $F_{(1,1329)} = 0.67$, $p = .412$). However, we did find a significant main effect of *newsletter type* on self-interest comparing statistical and advocacy-injected newsletters, which showed that messengers sending advocacy-injected newsletters received lower self-interest ratings than those sending statistics-only newsletters ($M_{Adv} = 3.01$, $SD_{Adv} = 1.18$; $M_{Stat} = 3.31$, $SD_{Stat} = 1.08$; $F_{(1,1329)} = 21.71$, $p < .001$, partial $\eta^2 = .02$). Further, we found a marginally significant *interaction effect* of messenger and newsletter factors on self-interest ($F_{(1,1329)} = 3.60$, $p = .058$, partial $\eta^2 < .01$) (see Figure 1-2).

Exploratory Three-Way Factorial ANOVAs

As an exploratory analysis, we conducted three-way factorial ANOVAs (messenger race x messenger gender x newsletter type) on other-interest and self-interest. We report these analyses in the online supplementary materials.

Study 2 Results Discussion

Study 2 replicates and extends the findings from Study 1: White male messengers are consistently perceived as significantly less other-interested than non-dominant messengers (i.e., female or racial minority) when sending purely informational messages, thus providing support for H1b. We also find that the lower other-interest perception of the White male messenger is attenuated when the purely informational message is modified to include an explicit personal stance advocating for social equity, providing support for H2a. The simple act of adding explicit

personal advocacy benefits not only the socially dominant yet message-discordant messenger, but also the non-dominant messengers who have more message-concordance with the issue at hand. While the advocacy-injection mechanism confers the largest boost to messengers with wider messenger-message demographic discordance (i.e., White male), the advocacy-injected newsletter leads to enhanced other-interest ratings for *all* messengers, including those with messenger-message concordance. This is a notable finding, as we had originally hypothesized a null effect in H2b for non-dominant messengers; indeed, our null hypothesis seems to undervalue the effect of advocacy-injection as we instead found that injecting advocacy increases even non-dominant messengers' other-interest perceptions.

Further, the findings from Study 2 reveal a discrepancy between other-interest and self-interest ratings both in terms of main effects and interaction effects. Specifically, White male messengers consistently received the lowest other-interest ratings, while the results in self-interest ratings were inconsistent and variable. In addition, while we find a significant interaction effect of messenger identity and newsletter type on other-interest ratings, we find a null interaction effect on self-interest ratings. These divergent results reveal an emerging pattern that while the effects of messenger identity and message content on other-interest ratings are consistent across studies, we do not observe similar effects on self-interest ratings. Our results further suggest that other-interest and self-interest perceptions may diverge and move independently of each other, rather than being opposing or inverse constructs.

Using a sample of participants with extensive managerial experience and who are familiar with similar company newsletters from peer employees, the next study aims to replicate both the messenger-message discordance effect wherein the discordant White male who shares information about inequality receives lower other-interest perceptions, as well as the advocacy-

injection intervention wherein the White male messenger's lower other-interest ratings are attenuated when he adds unambiguous expressions of a personal advocacy against inequality on top of the informational message. In our next study, we also include additional analyses that explore participants' open responses regarding the messengers' underlying motivations for sending a company newsletter on race- and gender-based workplace disparities. We identify various themes raised by the experienced managerial sample.

Study 3

In Study 3, we conducted a field survey (sometimes known as a lab-in-the-field study) with Executive MBAs to further strengthen the findings that: 1) the socially dominant messenger was rated significantly lower in other-interest comparing with non-dominant messengers and 2) this unfavorable rating given to the White male messenger was attenuated when the message explicitly includes personal advocacy. We also explore participants' qualitative open responses about messengers' motivations that provide additional insights into the messenger-message discordance effect.

Methods

Participants

We recruited business school students enrolled in fully employed and executive MBA programs. Most participants had extensive managerial experience. We collected data from 298 participants and, as preregistered, we excluded participants who did not finish the study or did not pass any attention check questions. Our final sample consisted of 186 participants (38.2% White, 38.2% Asian, 8.1% Latino/Hispanic, 2.2% Black, Hispanic, 0.5% Native Hawaiian or Pacific Islander, 12.9% Other/Decline; 37.6% Female; $M_{age} = 34.6$ years, $SD_{age} = 6.2$ years, $Range_{age}$: 24 to 53 years). The sample size was constrained by the size of the MBA cohorts that

voluntarily participated in the study. Given our sample size, a sensitivity test shows that a factorial ANOVA with a 2 (messenger dominance: *White Male* vs. *Non-Dominant*) x 2 (newsletter type: statistics-only vs. advocacy-injected) 4-cell design would be sensitive to effects of Cohen's $f = 0.21$ (partial $\eta^2 = .04$) for the main effects with 80% power ($\alpha = .05$), and would be sensitive to effects of Cohen's $f = 0.21$ (partial $\eta^2 = .04$) for interaction effects with 80% power ($\alpha = .05$).

Procedure

Consistent with previous studies, we randomly assigned participants to experimental conditions that varied in messengers' demographic identity (i.e., White male vs. Black and/or female) and newsletter type (i.e., statistics-only vs. advocacy-injected statistics). Participants followed a procedure similar to those used in previous studies.

Measures

This study focused on the same other-interest and self-interest measures as Studies 1 and 2. Correlations among key measures are described in Appendix Table A5.

Furthermore, participants provided open-ended qualitative responses about the perceived motivation of the messenger for voicing up on group-based workplace disparities in each condition (i.e., "In your own words and in as much detail as possible, what do you think is [Name]'s primary motivation in writing and sharing this newsletter?").

Results

Exploratory Two-Way Factorial ANOVAs

We conducted exploratory two-way factorial ANOVAs (messenger dominance x newsletter type) on our other-interest ($\alpha = .96$) and self-interest ($\alpha = .91$) index measures.

Other-interest. First, we found a significant main effect of *messenger dominance* on other-interest ratings ($M_{WM} = 3.73$, $SD_{WM} = 1.06$; $M_{ND} = 4.35$, $SD_{ND} = 0.86$; $F_{(1, 182)} = 21.38$, $p < .001$, partial $\eta^2 = .11$), showing that the *White Male* messenger was perceived as less other-interested than *Non-Dominant* messengers overall. We also found that the main effect of *newsletter type* was significant ($M_{Stat} = 3.80$, $SD_{Stat} = 1.01$; $M_{Adv} = 4.33$, $SD_{Adv} = 0.93$; $F_{(1, 182)} = 15.39$, $p < .001$, partial $\eta^2 = .08$), with advocacy-injected newsletters receiving higher other-interest ratings than statistics-only newsletters overall.

We did not find a significant *interaction effect* of messenger dominance and newsletter type factors on other-interest ($F_{(1,182)} = 1.79$, $p = .182$), potentially due to a lack of statistical power to detect a meaningful interaction. See Figure 1-3 Panel A for the interaction plot.

Self-interest. Second, for self-interest, we found a significant main effect of *messenger dominance identity* ($M_{WM} = 3.37$, $SD_{WM} = 0.91$; $M_{ND} = 3.05$, $SD_{ND} = 0.89$; $F_{(1,182)} = 6.12$, $p = .014$, partial $\eta^2 = .03$) such that the *White Male* messenger received significantly higher self-interest ratings than *Non-Dominant* messengers, but found no main effect of *newsletter type* ($F_{(1,182)} = 1.08$, $p = .301$).

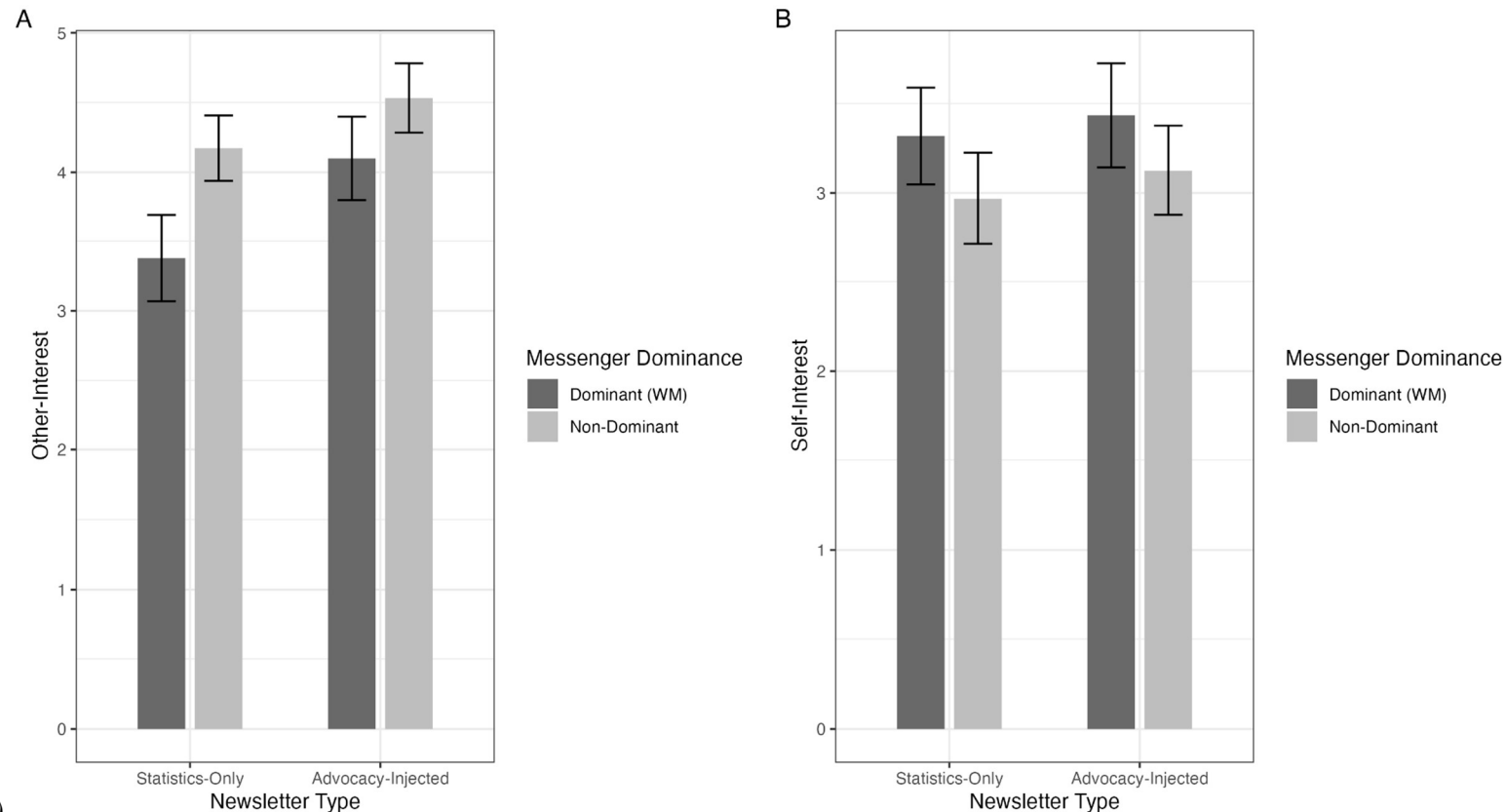
We also found no *interaction effect* of messenger dominance and newsletter on self-interest ratings ($F_{(1,182)} = 0.02$, $p = .878$). See Figure 1-3 Panel B for the interaction plot. We interpret this in line with the theory that self-interest and other-interest may function as independent constructs. This is supported by our data, which suggests that self-interest and other-interest do not necessarily bear the same patterns.

Exploratory Three-Way Factorial ANOVAs

As an exploratory analysis, we conducted three-way factorial ANOVAs (messenger race x messenger gender x newsletter type) on other-interest and self-interest. It is worthwhile noting

Figure 1-3

Other-Interest and Self-Interest Ratings by Messenger Dominance and Newsletter Type Conditions (Study 3, n =



186)

Note. Panel A depicts our finding that the dominant *White Male* messenger was rated significantly worse in other-interest ratings than *Non-Dominant* messengers regardless of newsletter type, and that advocacy-injected newsletters improved all messengers' other-interest ratings compared to statistics-only newsletters. Panel B shows that the *White Male* messenger was rated significantly more self-interested than *Non-Dominant* messengers regardless of newsletter type, and that advocacy-injected newsletters lowered self-interest perceptions compared to statistics-only newsletters regardless of dominance. Error bars represent 95% confidence intervals.

that the current sample size would be underpowered for this analysis. Thus, we leave the result, which should be interpreted with caution to the online supplementary materials.

Qualitative Results on Messenger's Motivation

Respondents shared their open-ended perspectives on the messenger's motivation. To better understand the nature of these qualitative responses, we conducted an exploratory qualitative content coding analysis. We followed a three-step process in this analysis.

First, two independent readers read through the full set of open responses multiple times and identified a list of five comprehensive motivation-related themes that participants frequently mentioned in their answers. This first step was followed by the first author and a research assistant, who independently identified and then collaboratively termed the five themes, which were frequently mentioned by participants (by at least 10%) and are largely distinctive categories. The comprehensive themes on motivation included: 1) to highlight or raise awareness of inequality and disparities based on group membership (i.e., race and/or gender), 2) to pursue self-serving or self-related motivations, 3) to express care or a personal concern about inequality, 4) to share hard data, facts, and information about a generic topic, and 5) to fulfill job- and/or company-related responsibility. Please see Table 1-1 for the comprehensive list of themes, frequency of mentions in responses, and example responses from participants.

Second, we trained two undergraduate research assistants (RAs) blind to the research hypotheses and study design to code participants' responses along the five identified themes (0 = theme is not present in participant response, 1 = theme is present in participant response). We used a small subset of the data to synchronously train the RAs.

The RAs were told that a single participant's response can contain multiple of these distinct themes. We then had the RAs independently code a larger subset of the data, on which

we conducted inter-rater reliability (IRR) calculation; the IRR between the two RAs was 96.6%.

We took the average of the two RAs' codes for this subset of the data. Given the high IRR, we then split up the rest of the data for each RA to code.

Table 1-1

Comprehensive Themes on Messenger's Motivation from Study 3 MBA Participants

Theme #	Theme Description	Percentage of Responses Mentioning Theme (N = 186)	Open Response Examples
1	To highlight or raise awareness of inequality and disparities based on group membership (i.e., race and/or gender)	62% (n = 114.5)	<i>"I think his primary motivation is to point out inequality[.]"</i> <i>"He wants to point out how minority and women have a tougher time out there in the workplace -- higher unemployment - - women make less money than men[.] He wants to see how to make things more equitable[.]"</i> <i>"Jalissa's motivation to write and share this newsletter is to educate/raise awareness about inequalities in the country..."</i>
2	To pursue self-serving or self-related motivations	31% (n = 58)	<i>"... his primary motivation is self-promotion."</i> <i>"I think Jason wants... to make himself look good and show off how good of a person he is."</i> <i>"I believe he was motivated by self interest not altruistic motives[.]"</i> <i>"He's trying to do what he thinks will get him ahead in the world."</i>

Theme #	Theme Description	Percentage of Responses Mentioning Theme (N = 186)	Open Response Examples
3	To express care or a personal concern about inequality	24% (n = 44)	<i>“To express to her colleagues how important issues of inequality are to her by highlighting a key statistic on the newsletter.”</i> <i>“I think her intention was to share statistics that she cares about. And she cares about the inequalities that she mentioned in her post. She could have been quiet about the entire situation of inequality, but she used the platform she was given to bring attention to it... I believe her intention was to draw attention to inequality.”</i> <i>“I think Julia's primary motivation for writing this newsletter is to utilize an opportunity to inform others about the existence of societal inequality, which is an issue she cares about....”</i>
4	To share hard data, facts, and information about a generic topic	15% (n = 27)	<i>“To bring awareness to certain facts we may not know about or are unconcerned about.”</i> <i>“I believe that its truly factual base and wants to share information out to the community.”</i> <i>“His primary motivation is to inform the public about some objective labor and wage statistics without any particular ulterior motive.”</i>
5	To fulfill a job- or company-related responsibility	13% (n = 24)	<i>“Required by job[.]”</i> <i>“It sounds like the company has stated goals around fair labor practices (or maybe even that is the nature of the</i>

Theme #	Theme Description	Percentage of Responses Mentioning Theme (N = 186)	Open Response Examples
			<i>company's business). I think she is looking to help the company reach their goals."</i> <i>"I think he just wanted to get the job done because it is assigned to one employee every month. He just wanted to provide statistics about the labor market for the company and his cohort. The data and facts in his newsletter are true and reflect what's going on in the current US society. I don't think he has any strong propensity."</i>
None	None of the five themes were present	3% (n = 6)	<i>"I honestly have no idea. I would need a much deeper conversation with him. There's no call to action though[.]"</i>

Note. Participants responded to the question: "In your own words and in as much detail as possible, what do you think is [Name]'s primary motivation in writing and sharing this newsletter?" Additionally, as noted in the main text, both RAs independently coded a subset of the data. We took the average of their codes, which may result in a non-integer value for overall frequency. This is the case for why the frequency of Theme 1 occurrences includes a decimal point.

Third, using the coded data, we conducted an exploratory binomial logistic regression to investigate whether there were significant differences in how frequently a certain theme was mentioned between conditions.⁶ We found that messenger dominance significantly predicted Theme 1 mentions, showing that participants assigned to non-dominant messenger conditions

⁶ To preserve the binomial nature of theme mentions in our logistic regressions (wherein 0 = theme is not present in participant response and 1 = theme is present in participant response), we excluded data from participants whose open responses had an average RA coding of 0.5, suggesting disagreement between the RAs. The inter-rater reliability between the two RAs was very high (96.6%) and participants with 0.5 ratings were very infrequent; Theme 1 had three, Theme 2 had zero, Theme 3 had zero, Theme 4 had four, and Theme 5 had two participants with 0.5 ratings.

were significantly more likely to perceive the messenger as being motivated to share group-based inequalities and disparities so as to highlight and raise awareness of such disparities ($b = 0.80$, $SE = 0.31$, $p = .010$). The odds of expressing Theme 1 were 2.24 times higher for participants assigned to non-dominant messenger conditions compared to those in dominant messengers (95% CI [1.22, 4.15]). No other themes were significantly predicted by dominance condition, newsletter type, or the interaction of the two factors (p 's $> .05$). We report additional exploratory t-tests on these themes, which showed consistent results, in the online supplementary materials.

Study 3 Results Discussion

This final study replicates and provides support to the messenger-message discordance effect from Studies 1 and 2 using a sample of executive MBAs with extensive managerial experience and who are familiar with similar company newsletters from peer employees. White male messengers are consistently perceived as significantly less other-interested than non-dominant messengers. Additionally, messengers delivering purely statistical information are perceived as significantly less other-interested than messengers delivering advocacy-injected statistics.

Further, Study 3 included an open-ended question asking participants to write what they thought the messenger's primary motivation was in sending the Community Newsletter. Through content coding analysis, we identified five major themes. These themes were unique and largely non-overlapping, suggesting that participants were able to infer complex and nonsingular motivations from a messenger. Of these motivations, Theme 1, which is the motivation to highlight or raise awareness of inequality and disparities based on group membership, such as race and/or gender, was raised by more than 60% of the participants. In binomial logistic

regressions, we find that non-dominant messengers are significantly more likely than dominant messengers to be perceived as motivated by Theme 1. In other words, non-dominant messengers were more frequently perceived as being genuinely motivated to highlight or raise awareness of group-based inequalities than dominant messengers.

General Discussion

Across one pilot study and three preregistered experiments, our results show that when an individual presents a message about gender and race disparities in the workplace, *who* speaks up and *what* their message conveys matters for motivational attributions. Demographic differences between messengers interact with message content to affect how individuals are perceived by others in terms of self-interest (i.e., the motivation to act in one's own interest) and other-interest (i.e., the motivation to act in another's interest).

In Study 1, which features a purely information-sharing context, we find that a messenger's demographic identity affects motivational and interest-related perceptions of the messenger. Socially dominant White male messengers who deliver statistical and purely informational messages about race- and gender-based workplace disparities were seen to have less favorable motivational intentions and perceived to be less other-interested and more self-interested. Meanwhile, Black or female messengers who deliver the same factual information are seen as having more favorable motivations and perceived to be more other-interested and less self-interested. In other words, White men are seen as acting out less in other people's interest and more in one's own interest when delivering a purely informational message on race- and gender-based workplace disparity.

In Study 2, we test how injecting explicit personal advocacy into an informational message might change the other-interest and self-interest perceptions of messengers. First, we

replicate the negative messenger-message discordance effect and find that the White male messenger is perceived as less other-interested and more self-interested than their non-dominant counterparts when presenting a statistics-only newsletter. Second, we find that injecting explicit personal advocacy into the statistical workplace newsletter increases other-interest ratings and reduces self-interest ratings for both socially dominant and non-dominant messengers. Further, we find that there exists an interaction effect between the messenger's demographic identity and the message content, such that the socially dominant White male messenger mitigates his lower other-interest perceptions when adding explicit personal advocacy into the informational message. In short, sharing purely statistical information, objective and impartial as it appears, may unexpectedly lower the perceived other-interest of the socially dominant White male messengers. However, adding explicit personal advocacy against disparity mitigates such negative motivational attributions and improves all groups' perceived motivations.

Finally, in Study 3, we recruited a sample of executive MBA students with extensive managerial experience to further replicate the messenger-message discordance effect and to explore potential motivations underlying messengers' decision to write and disseminate the company newsletter on group-based disparities. Our results show, firstly, that the negative messenger-message discordance effect for the White male messenger's motivational attributions holds in terms of other-interest ratings under the statistics-only newsletter condition and, secondly, that adding personal advocacy to the message improves other-interest ratings. We also conducted a review of qualitative open response data and identified five distinct motivational themes mentioned by participants. Our qualitative results show that one of these themes – the motivation to highlight or raise awareness of group-based disparities – was mentioned by more than 60% of participants. Further, for this particular theme, we found significant differences in

mentions by messenger dominance, which suggests that participants in non-dominant messenger conditions were more likely to perceive that the messenger was motivated by the desire to highlight or raise awareness of group-based disparities than participants in the dominant messenger condition.

The current research opens more questions than solved. Our experimental design allows for stronger causal identifications and internal validity, but may be limited in external validity or contextual richness. Our designs do not feature a study that includes only subjective advocacy content and no informational statistics. Future work may consider conducting a study that tests for differences in messenger self-interest and other-interest when delivering an advocacy-only newsletter.

Further, we believe it is important to expand messenger demographics and disparity domains to include additional race and gender identities beyond White/Black and male/female. We also recognize the need for future research that considers cross-cultural contexts or organizational settings in which the socially dominant ally is not White or male. Relatedly, surveying participants who themselves have demographic overlap with the messengers or are predominantly in-group members of a marginalized or minority group social identity may be interesting and reveal different motivational attributions. For instance, in our work, we survey White-majority samples with participants who on average reveal an unfavorable other-interest and self-interest perception of the White male messenger. Although we did not find a moderating effect from participants' own gender or racial identities in the current study, future work should consider sampling predominantly Black or other minority populations—who themselves may be potential downstream beneficiaries of the advocacy message—to evaluate whether or not motivational attributions of messengers would shift based on sample composition.

Finally, identifying and testing mechanisms would strengthen this work. Though we try to explore potential underlying motives through participants' qualitative responses, our work does not directly test mechanisms underlying the relationship between messenger identity and motivation attributions. We include exploratory mediation analyses in the online supplementary materials (i.e., specifying motivation to highlight or raise awareness of group-based disparities, concern for inequality, and white supremacy as three separate mediators). However, these mediation models are highly speculative, as we acknowledge that highlighting group-based disparities and concern for inequality are constructs that conceptually overlap with items that mention inequality within our other-interest measure.⁷ We encourage future work to expand upon this initial investigation and explore other mediators that are theoretically driven. In future work, we will consider these extensions.

Theoretical and Practical Implications

The finding that the socially dominant White male messenger is perceived as less other-interested than his non-dominant peers updates the evidential base regarding how demographic identities impact how an individual's motivations or interests are perceived and evaluated. Our findings add to the large body of literature suggesting that those who are subject matter experts, insiders, or otherwise closer to the target for which they are advocating are perceived more positively in terms of knowledge, persuasiveness, and legitimacy (Cialdini & Trost, 1998; Sherf et al., 2017; Thai et al., 2021; Torrez et al., 2023; Wallace et al., 2024). We advance this broad field of work on identity-based person perceptions by focusing specifically on two essential motivational attributions: other-interest and self-interest. Our work shows that messengers with

⁷ We address an anticipatory concern that there may be overlap between the constructs by running our analyses using a revised other-interest index that removed items referring to inequality and ultimately found consistent results (please see online supplementary materials).

demographic concordance to messages of group-based disparities (i.e., Black and/or female messengers who have faced lower employment and salary outcomes) were granted more favorable motivational attributions in the form of higher other-interest and lower self-interest ratings.

Given the U.S. organizational context in which the socially dominant group consists of White men, and non-socially dominant groups are women and racial minorities who are more likely to directly experience race- and gender-based disadvantages, our findings suggest that non-dominant messengers are perceived more other-interested where messenger-message *concordance* exists (i.e., wherein non-dominant individuals speak out about race- and gender-based inequality). Indeed, it is the White male, the *discordant* messenger, who receives an unfavorable motivational attribution in terms of self-interest and other-interest when speaking up on inequality without explicit personal advocacy.

Further, we propose the importance of a messenger-message discordance effect in driving different other-interest and self-interest attributions. Rather than the perceptions of motivation shifting on the basis of messenger identity alone, it is important to acknowledge the gap or discordance between a messenger's identity and the message's subject in contributing to trait and interpersonal evaluations. We build upon the messenger-message discordance effect by examining and proposing a simple intervention to mitigate the unfavorable other-interest and self-interest ratings attributed to the White male messenger. We find that inserting personal narration of explicit advocacy can reduce the negative effect of messenger-message discordance. By sharing a clearly supportive and anti-disparity mission-oriented perspective, the White male messenger positions himself more as an advocate and reduces his discordance with the message's subject of group-based disparity. In turn, his previously lower other-interest and

higher self-interest ratings were attenuated, and the White male messenger showed no difference in these measures when compared to other messengers. By including a strong personal stance against disparities, the negative effect of messenger-message discordance on motivational attributions is weakened.

Interestingly, we found that this advocacy-injection not only attenuates the White male messenger's poor other-interest ratings, but also boosts non-dominant messengers' other-interest ratings. This finding is notable not only because it highlights how we had underestimated the power of advocacy-injection for non-dominant messengers in our own hypothesis, but also because this finding deviates from what previous literature may have predicted for non-dominant messengers regarding other types of person perceptions. Past work has shown that, for marginalized and non-dominant individuals or messengers, providing additional personal details about oneself in a presentation and voicing context enhances perceptions of warmth-related trustworthiness, but decreases perceptions of competence-related trustworthiness (Altenmüller et al., 2023). While this work is on person perception more broadly and not on motivational attributions, such as other-interest and self-interest specifically, it sheds light into an alternative hypothesis that non-dominant messengers may be generally perceived less favorably when adding in personal narratives or advocacy statements. We encourage future work to investigate this potential pattern of results. Indeed, while our work suggests the practice of explicit personal advocacy in general for all messengers, we qualify this recommendation by more strongly encouraging the use of this intervention for socially dominant individuals than for non-dominant individuals, as it is possible that the other-interest perception boosts for non-dominant messengers may vary depending on the participants and contexts (e.g., Altenmüller et al., 2021).

Another theoretical contribution of the current work is to the domain of motivation, other-interest, and self-interest research. Specifically, we provide additional empirical evidence to the theory that other-interest and self-interest outcomes are indeed distinct and vary independently to each other (Gerbasi & Prentice, 2013; Howell et al., 2015; Li et al., 2021; Stoeber, 2015). Further, we provide an additional finding to this area of research in that we find the effects of our messenger and newsletter manipulations were stronger and more consistent along our other-interest outcome than along our self-interest outcome. This could be a simple extension of the theory that other-interest and self-interest measures move differently rather than in sync or in complementary ways. Moreover, this pattern of results could speak to an underlying conceptualization that other-interest is more predictive of altruism and is thus a more positive construct. Since other-interest inherently places the consideration of others over the self, other-interest has a highly positive and favorable connotation to it (Gerbasi & Prentice, 2013).

Concern, care, or interest in others outside of the self is more clearly positive across contexts and thus may be a stronger foundation to form impressions or perceptions on, whereas self-interest is less clearly of positive or negative valence and may be more dependent on the scenario. Indeed, each of the messengers featured in this study are seen as somewhat self-interested, but perhaps these are all for unique and distinct reasons; it is possible that the socially dominant White male messenger may be seen as being performative or virtue signaling for his own reputational promotion, whereas non-dominant messengers may be seen as motivated to advance their in-group members' and perhaps their own well-being. Related is the construct of vested interests, or a motivation to advance the interests of their in-group (i.e., Thai et al., 2021). Vested interests may be conceptualized as “group-interest,” and accordingly, occupy an overlapping area or the center of a Venn diagram depicting other-interest and self-interest. While

the current work does not investigate group-interest, it is possible that, using these same messenger identity and newsletter type conditions, group-interest perceptions may be in between other-interest ratings and self-interest ratings, may be higher than both, lower than both, or closer to one over the other. Future research is needed to examine and discern the extent to which other-interest, self-interest, and perhaps even group-interest vary independently and show varying strength in effects.

Nevertheless, our findings on other-interest and self-interest perceptions show that they are distinct constructs and, indeed, our intervention influenced them in different ways with different predictive power. Future work should build our findings on these fundamental motivation attributions and expand into broader downstream outcomes or implications that other-interest and self-interest perceptions may have on messengers in presentation or voicing contexts. As noted previously, altruism perceptions are related to other-interest perceptions. Additionally, bias, persuasion, credibility, legitimacy, expertise, and impact have all been shown to vary based on social identity (e.g., Cialdini & Trost, 1998; Moser et al., 2024; Thai et al., 2021; Torrez et al., 2024; Wallace et al., 2024), but a clearer connection of these constructs to motivations, other-interest, and self-interest is of high importance to the field. Of particular interest may be quasi-behavioral outcomes that stem from these motivational attributions, such as workplace collaboration with the messenger or monetary donations to combating workplace disparities. Perhaps messenger conditions receiving higher other-interest would, in turn, solicit greater collaboration requests or monetary donations. Investigating these downstream implications and related person perception constructs would be of great interest for future work.

Overall, by testing the addition of explicit personal advocacy and finding that it increased other-interest perceptions for all demographically-varying messengers, we contribute evidence in

favor of an active personal advocacy approach. Active personal advocacy has been previously demonstrated by scholars from different fields (Kendi, 2019; Michie et al., 2018; Moyer et al., 2020; Trevisan, 2017), and our work expands these arguments to the workplace and organizational context with motivational attributions as a focus. We propose that the simple, low-cost intervention of including personal advocacy intentions when speaking up about disparities and inequality is, particularly from the dominant group members, a necessary and important first step in the long march towards organizational justice and equity.

Practically, we believe our findings shed light on the reality that *who* speaks up and *how* matters for motivational attributions in the context of voicing group-based disparity. Instead of solely relying on purely statistical or “objective” information as the basis of presenting on inequality or disparities, our findings encourage individuals and allies, particularly those from the dominant group, to incorporate explicit personal advocacy when presenting on and voicing up against inequality. Doing so seems to improve other-interest perceptions for all advocates, and in particular for those who are socially dominant. So long as the messengers are indeed acting from a place of genuine advocacy, firmly sharing one’s stance may alleviate the concern that their speaking up about inequity comes across as performative, more self-interested, and less other-interested.

While messengers and other workplace advocates should take stock of their social identity in voicing up against inequality, our findings offer accessible and trainable solutions that encourage all potential advocates—and particularly those with socially dominant identities—to voice up, rather than shy away from the act of voicing or fear backlash from sharing their personal perspective in advocacy.

Appendix A:

In the below appendix for Chapter 1, I provide details on the methods and results for our Pilot Study, followed by information on our experimental stimuli, dependent variable scale items, and intercorrelations between primary measures. Further supplementary results can be found online at <https://journals.sagepub.com/doi/10.1177/01461672251338679>.

Pilot Study

We created messenger profiles that consisted of a professional headshot photo and get-to-know-you information about the individual. We conducted the Pilot Study to test profile stimuli that would be used in our subsequent main studies. We sought to select profile photographs that were equivalent in terms of other-interest and self-interest ratings in order to control for these traits in the main studies. The four photos we selected for pilot testing were shortlisted from ratings provided by our study team and additional research assistants. Our aim was to create employee profiles that do not have distinguishable differences along these key dependent measures.

Method

Participants

We conducted a brief survey with 138 U.S. participants on TurkPrime. Data from seven participants who did not pass any of the attention check questions and one participant who did not finish the survey were excluded from data analysis. These exclusions were mentioned in the preregistration for this study. Our final sample consisted of 130 individuals (81.5% White, 6.9% Black, 6.2% Asian, 5.4% Hispanic; 39.2% Female; $M_{\text{age}} = 40.7$ years, $SD_{\text{age}} = 11.6$ years, $\text{Range}_{\text{age}}$: 23 to 71 years). Our final sample size for the Pilot Study is sufficient to meet the $n =$

30 per cell we sought. Participants received \$1.00 in payment for their engagement in this 5-minute survey.

Procedure

Participants were introduced to the study and asked to imagine that they worked at a company with many other employees. They were told that they would be viewing the employee profile of one of their colleagues. Participants had an equal and random chance of being assigned to one of the four conditions varying gender and race (i.e., Black female, Black male, White female, or White male hypothetical coworker condition).

To make the profiles appear realistic and to make the stimuli a stronger manipulation of race and gender, we included a professional headshot photograph and a unique first name that fit within racial stereotype expectations (i.e., Jalissa Johnson, Jamal Johnson, Julia Johnson, and Jason Johnson). We also included generic personal facts, including time at company, favorite hobbies, and favorite food in the profiles; the facts were the same across conditions. We employed similar to audit studies in creating these profiles (e.g., Bertrand & Mullainathan, 2004; Deros et al., 2017; Kang et al., 2016; King et al., 2006). See Table A1 for full employee profile stimuli. Participants were asked to rate their hypothetical coworker on a brief set of measures and to base their rating on a first impression.

Measures

Other-Interest and Self-Interest. Participants were asked to report their perceptions of the employee's concern for inequality and intention of helping others (other-interest), and concern for themselves (self-interest). We adapted a total of 21 items from previous work and existing self-interest and other-interest scales (Clary et al., 1998; Gardner & Ryan, 2020; Gerbasi & Prentice, 2013; Tseng & Fan, 2011). For example, items for self-interest include "[Name] is

keeping an eye out for [his/her] interests”; items for other-interest include “[Name] is actively concerned about other’s interests.” A 6-point Likert scale was used (1 = *not at all* to 6 = *extremely*). Please see Note A1 and Note A2 for a complete list of items. At the end of the survey, participants were asked for their demographic information, including race, gender, age, and highest level of education achieved.

Results

Our goal for the Pilot Study was to rule out the possibility that the hypothetical coworker’s profile and associated identity demographics led to differences in other-interest or self-interest (our primary dependent variables in subsequent main studies).

As such, we examined if the four hypothetical Featured Employee Profiles were perceived similarly in terms of two focal dependent variables: other-interest and self-interest.

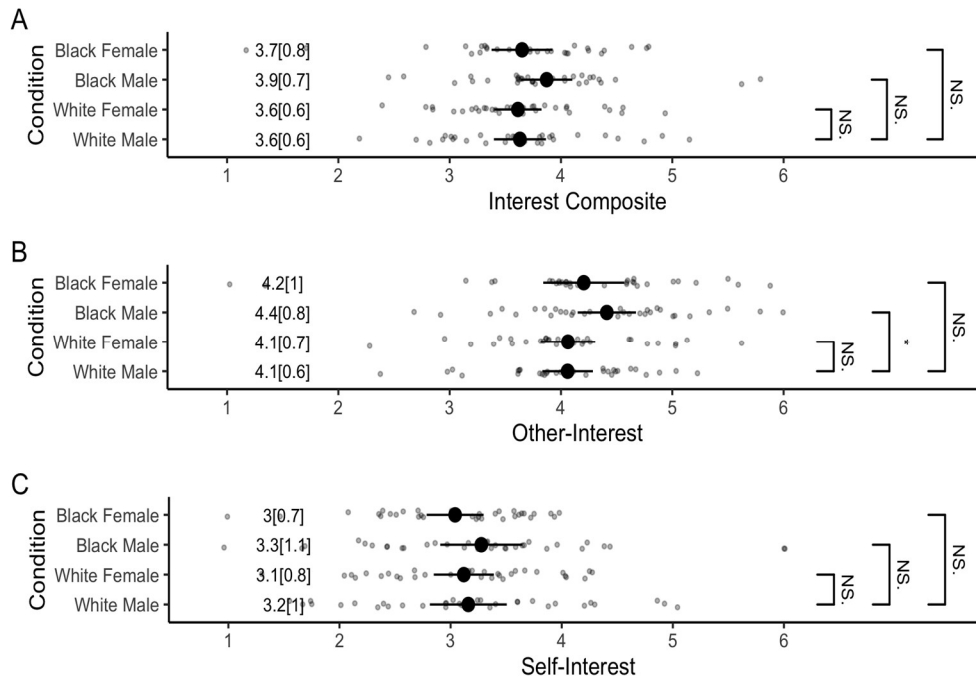
Interest Composite, Other-Interest, and Self-Interest

First, we found no significant differences in our combined self-interest and other-interest composite ratings (21 items, $\alpha = .92$; $M_{BF} = 3.7$, $SD_{BF} = 0.8$; $M_{BM} = 3.9$, $SD_{BM} = 0.7$; $M_{WF} = 3.6$, $SD_{WF} = 0.6$; $M_{WM} = 3.6$, $SD_{WM} = 0.6$; $F_{(3, 126)} = 1.10$, $p = .353$, partial $\eta^2 = .03$). We then decomposed our 21-item interest measures into an 11-item other-interest composite ($\alpha = .93$) and a 10-item self-interest composite ($\alpha = .92$). We found no significant differences in other-interest composite ratings ($M_{BF} = 4.2$, $SD_{BF} = 1.0$; $M_{BM} = 4.4$, $SD_{BM} = 0.8$; $M_{WF} = 4.1$, $SD_{WF} = 0.7$; $M_{WM} = 4.1$, $SD_{WM} = 0.6$; $F_{(3, 126)} = 1.50$, $p = .218$, partial $\eta^2 = .03$) between coworker conditions, and no significant differences in self-interest composite ratings ($M_{BF} = 43.0$, $SD_{BF} = 0.7$; $M_{BM} = 3.73$, $SD_{BM} = 1.1$; $M_{WF} = 3.91$, $SD_{WF} = 0.8$; $M_{WM} = 3.82$, $SD_{WM} = 1.0$; $F_{(3, 126)} = 0.41$, $p = .747$, partial $\eta^2 < .01$) between coworker conditions. As such, there were no differences in other-interest or

self-interest between the four messengers. Figure A1 displays the mean plots for each of these three measures.

Finding no significant differences between the four coworker conditions' employee profiles in other-interest, self-interest, or interest composite ratings, we used the profiles and photos as experimental materials in our main studies.

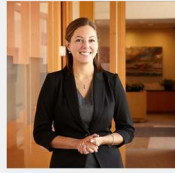
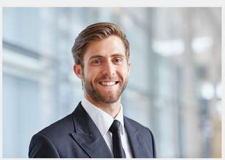
Figure A1. Interest Composite, Other-Interest, and Self-Interest Mean Plots (Pilot Study, $n = 130$)



Note. These mean plots show interest composite (Panel A), other-interest (Panel B), and self-interest (Panel C) ratings for Pilot Study ($n = 130$). We found no significant differences in our combined 21-item self-interest and other-interest composite ratings ($\alpha = .92$; $F_{(3, 126)} = 1.10$, $p = .353$, partial $\eta^2 = .03$). Additionally, we found no significant differences in our 11-item other-interest composite rating ($\alpha = .93$; $F_{(3, 126)} = 1.50$, $p = .218$, partial $\eta^2 = .03$) or in our 10-item self-interest composite ratings ($\alpha = .92$; $F_{(3, 126)} = 0.41$, $p = .747$, partial $\eta^2 < .01$). Error bars represent 95% confidence intervals.

Table A1. Condition Stimuli Manipulating Messenger’s Race, Gender, and First Name.

Messenger Condition	Featured Employee Profile	Community Newsletter (Statistics-Only)
Black Female: Jalissa	This month's Community Newsletter featured employee: Jalissa Johnson  ❖ Time at Company: 2-3 years ❖ Favorite Hobbies: Watching movies, reading, walking ❖ Favorite food: Pizza	Dear colleagues and friends, I hope this email finds you well. It is my pleasure to bring you this month's Community Newsletter. This month, I decided to share recent statistics on the labor market. As our company is invested in fair employment practices, it is increasingly important to understand the data on the labor market. I would like to present the following statistics: • According to the Bureau of Labor Statistics, unemployment breakdown by race is as follows: Whites (3.3%) and Blacks (6.1%) (for the year 2019).  • According to the U.S. Census Bureau, households headed by men have an average yearly income of \$88,182 and households headed by women have an average yearly income of \$64,470 (for the year 2019).  I hope you found this month's Community Newsletter insightful. As always, please do not hesitate to reach out with questions or concerns. Best wishes, Jalissa Johnson Jalissa.Johnson@company.com
Black Male: Jamal	This month's Community Newsletter featured employee: Jamal Johnson  ❖ Time at Company: 2-3 years ❖ Favorite Hobbies: Watching movies, reading, walking ❖ Favorite food: Pizza	Dear colleagues and friends, I hope this email finds you well. It is my pleasure to bring you this month's Community Newsletter. This month, I decided to share recent statistics on the labor market. As our company is invested in fair employment practices, it is increasingly important to understand the data on the labor market. I would like to present the following statistics: • According to the Bureau of Labor Statistics, unemployment breakdown by race is as follows: Whites (3.3%) and Blacks (6.1%) (for the year 2019).  • According to the U.S. Census Bureau, households headed by men have an average yearly income of \$88,182 and households headed by women have an average yearly income of \$64,470 (for the year 2019).  I hope you found this month's Community Newsletter insightful. As always, please do not hesitate to reach out with questions or concerns. Best wishes, Jamal Johnson Jamal.Johnson@company.com

White Female: Julia	This month's Community Newsletter featured employee: Julia Johnson  ❖ Time at Company: 2-3 years ❖ Favorite Hobbies: Watching movies, reading, walking ❖ Favorite food: Pizza	Dear colleagues and friends, I hope this email finds you well. It is my pleasure to bring you this month's Community Newsletter. This month, I decided to share recent statistics on the labor market. As our company is invested in fair employment practices, it is increasingly important to understand the data on the labor market. I would like to present the following statistics: - According to the Bureau of Labor Statistics, unemployment breakdown by race is as follows: Whites (3.3%) and Blacks (6.1%) (for the year 2019).  - According to the U.S. Census Bureau, households headed by men have an average yearly income of \$88,182 and households headed by women have an average yearly income of \$64,470 (for the year 2019).  I hope you found this month's Community Newsletter insightful. As always, please do not hesitate to reach out with questions or concerns. Best wishes, Julia Johnson Julia.Johnson@company.com
White Male: Jason	This month's Community Newsletter featured employee: Jason Johnson  ❖ Time at Company: 2-3 years ❖ Favorite Hobbies: Watching movies, reading, walking ❖ Favorite food: Pizza	Dear colleagues and friends, I hope this email finds you well. It is my pleasure to bring you this month's Community Newsletter. This month, I decided to share recent statistics on the labor market. As our company is invested in fair employment practices, it is increasingly important to understand the data on the labor market. I would like to present the following statistics: - According to the Bureau of Labor Statistics, unemployment breakdown by race is as follows: Whites (3.3%) and Blacks (6.1%) (for the year 2019).  - According to the U.S. Census Bureau, households headed by men have an average yearly income of \$88,182 and households headed by women have an average yearly income of \$64,470 (for the year 2019).  I hope you found this month's Community Newsletter insightful. As always, please do not hesitate to reach out with questions or concerns. Best wishes, Jason Johnson Jason.Johnson@company.com

Note. The employee profiles were tested for equivalence in dependent measures interest composite, other-interest, and self-interest in the Pilot Study. The employee profiles and newsletters were used in Studies 1-3.

Figure A2. Advocacy-Injected Community Newsletter Stimuli (Study 2 and 3).

Dear colleagues and friends,

I hope this email finds you well.

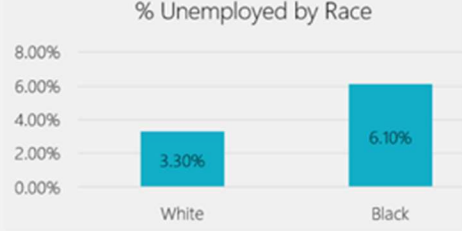
It is my pleasure to bring you this month's Community Newsletter.



This month, I decided to share recent statistics on the labor market. As some of you may know, inequality is an issue near and dear to my heart. I want to take this opportunity to share the bleak state of inequality with you all, as addressing socioeconomic inequality is one of my personal missions. With that in mind, I would like to present the following statistics:

- According to the Bureau of Labor Statistics, unemployment breakdown by race is as follows: Whites (3.3%) and Blacks (6.1%) (for the year 2019).

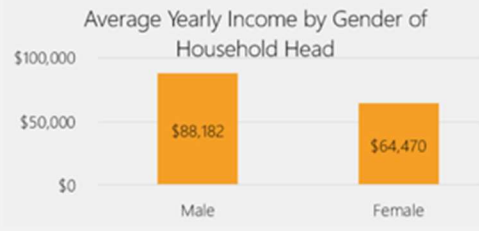
% Unemployed by Race



Race	% Unemployed
White	3.30%
Black	6.10%

- According to the U.S. Census Bureau, households headed by men have an average yearly income of \$88,182 and households headed by women have an average yearly income of \$64,470 (for the year 2019).

Average Yearly Income by Gender of Household Head



Gender	Average Yearly Income
Male	\$88,182
Female	\$64,470

By sharing the state of inequality in our society, I aim to advocate for equality and pave the way for future change. I hope you found this month's Community Newsletter insightful. As always, please do not hesitate to reach out with questions or concerns.

Best wishes,
Jalissa Johnson
Jalissa.Johnson@company.com

Note. The yellow highlighted text indicates additive narrative context and subjective advocacy. These highlights were not visible to the study participants. All four messenger conditions (i.e., *White Male*, *White Female*, *Black Male*, and *Black Female*) have the same updated Community Newsletter, modified with the relevant profile photograph in the top right-hand corner and email signature.

Note A1. Original items included in other-interest and self-interest measurement.

To what extent do you agree with the below statements?

1 = *strongly disagree*, 2 = *moderately disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, 5 = *moderately agree*, 6 = *strongly agree*.

1. [Name] is concerned about those less fortunate than [him/her]self.
2. [Name] prioritizes [him/her]self over others.*
3. [Name] feels compassion toward people in need.
4. [Name] tries to promote equality by helping others.
5. [Name] feels it is important to help [him/her]self before helping others.*
6. [Name] cares a great deal about inequality.
7. [Name] is very interested in his/her own life.*
8. [Name]'s intention in writing the Community Newsletter is for self-promotion.*
9. [Name]'s intention in writing the Community Newsletter is to present the state of inequality in the U.S.

*Denotes item was reverse-coded

Note A2. Adapted other-interest and self-interest items.

Adapted from Gardner & Ryan (2020), Gerbasi & Prentice (2013), and Tseng & Fan (2011).

To what extent do you agree with the below statements?

1 = *strongly disagree*, 2 = *moderately disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, 5 = *moderately agree*, 6 = *strongly agree*.

Self-interest items* that make up self-interest composite:

1. [Name] is acting self-interestedly.
2. [Name] is looking for ways to get ahead.
3. [Name] is keeping an eye out for [his/her] interests.
4. [Name] is looking for opportunities to achieve higher social status.
5. [Name], by and large, is pursuing [his/her] own interests.
6. [Name] is protecting [his/her] own interests above other considerations.

*All self-interest items were reverse-coded.

Other-interest items that make up other-interest composite:

1. [Name] keeps an eye out for other's interests.
2. [Name] has a strong sense of responsibility to the outside community.
3. [Name] is actively concerned about other's interests.
4. It is important to [Name] that others are happy.
5. [Name] looks for opportunities to help others achieve higher social status.
6. [Name] wants to help others do well.

Table A2. A list of all other-interest and self-interest items measured in Studies 1-3:

Construct	Item Text
Other-interest	[Name] is concerned about those less fortunate than [him/her]self.
	[Name] feels compassion toward people in need.
	[Name] tries to promote equality by helping others.
	[Name] cares a great deal about inequality.
	[Name]’s intention in writing the Community Newsletter is to present the state of inequality in the U.S.
	[Name] is protecting [his/her] own interests above other considerations.
	[Name] has a strong sense of responsibility to the outside community.
	[Name] is actively concerned about other’s interests.
	It is important to [Name] that others are happy.
	[Name] looks for opportunities to help others achieve higher social status.
	[Name] wants to help others do well.
Self-interest	[Name] prioritizes [him/her]self over others.
	[Name] feels it is important to help [him/her]self before helping others.
	[Name] is very interested in his/her own life.
	[Name]’s intention in writing the Community Newsletter is for self-promotion.
	[Name] is acting self-interestedly.
	[Name] is looking for ways to get ahead.
	[Name] is keeping an eye out for [his/her] interests.
	[Name] is looking for opportunities to achieve higher social status.
	[Name], by and large, is pursuing [his/her] own interests.
	[Name] is protecting [his/her] own interests above other considerations.

Table A3. Descriptive Statistics and Intercorrelations of Key Variables in Study 1

Variable	<i>M</i>	<i>SD</i>	1
1. other-interest composite	4.86	0.82	
2. self-interest composite	3.32	1.02	-.51** [-.57, -.45]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. * indicates $p < .05$. ** indicates $p < .01$.

Table A4. Descriptive Statistics and Intercorrelations of Key Variables in Study 2

Variable	<i>M</i>	<i>SD</i>	1
1. composite_other	4.85	0.93	
2. composite_self	3.12	1.15	-.60** [-.64, -.57]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. * indicates $p < .05$. ** indicates $p < .01$.

Table A5. Descriptive Statistics and Intercorrelations of Key Variables in Study 3

Variable	<i>M</i>	<i>SD</i>	1
1. other-interest composite	4.06	1.00	
2. self-interest composite	3.20	0.91	-.43** [-.54, -.31]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. * indicates $p < .05$. ** indicates $p < .01$.

CHAPTER 2

Liberals and Conservatives Respond Divergently to Stereotype Portrayals of Race and Gender

Elizabeth Q. Jiang

Margaret J. Shih

Data collection for all studies was approved by the University of California, Los Angeles (UCLA)'s Office of the Human Research Protection Program (OHRPP) (Institutional Review Board Number #22-01549). All studies are pre-registered. Pre-registration documents and study materials for all studies are available on OSF: <https://osf.io/cxpgk/>.

Liberals and Conservatives Respond Divergently to Stereotype Portrayals of Race and Gender

Abstract

Representation in the media has become a polarizing issue dividing conservatives and liberals in the U.S. In four experiments ($N = 5,125$), we find that stereotype portrayal elicits divergent attitudinal, economic, and behavioral reactions from liberals and conservatives. Notably, these reactions differ when portrayals feature racial minority (Study 1, $n = 958$ & Study 2, $n = 900$) versus white models (Study 3, $n = 783$ & Study 4, $n = 2,484$). Our findings demonstrate consistent divergence in responses to stereotype congruent versus incongruent portrayals between liberals and conservatives, although the direction and magnitude of differences vary. Liberals and conservatives display both variability and consistency in their divergent evaluations: liberals endorse portrayals of minority races and of incongruency but withhold this endorsement for solely white models, whereas conservatives typically prefer congruent portrayals, but show an openness towards incongruency when white models are featured. Understanding these dynamics is crucial for navigating the current sociopolitical landscape, especially in contexts where representations of race and gender identities are contentious.

Keywords: political ideology, race and gender, stereotypes, congruence, perceptions and behaviors

Introduction

Political polarization has resulted in divisions in the United States (Pew Research Center, 2020), particularly on issues surrounding equity, diversity, and inclusion (EDI) (Bowman, 2025). The growth of social justice movements related to race and gender – such as #MeToo, active anti-racism, LGBTQ+ pride, and gender pronoun signifiers – has also spawned a backlash among conservatives (Mansbridge & Shames, 2008; Patterson et al., 2021). For instance, while liberals often prioritize addressing perceived social injustices and advocate for change (i.e., stay woke), conservatives frequently emphasize preserving traditional values and institutions they view as foundational to society (i.e., war on woke) (Montanaro, 2023). These liberal-driven movements and its backlash from conservatives reflect an intensifying, negative spiral: growing attention to the way individuals are represented in popular media reinforces beliefs and, in turn, leads to behavioral responses such as boycotts, cancellations, as well as accusations of cancel culture (Huntington & Glickman, 2021; Liaquat et al., 2023; Rasmussen et al., 2022). The liberal versus conservative ideological discord on issues surrounding EDI is especially salient in the consideration of representation and representativeness of marginalized individuals.

Popular mass media portrayals of marginalized groups in the U.S. (Taylor et al., 1995), such as racial minorities and women, have incurred strongly divergent reactions from liberal- and conservative-minded viewers, wherein the former tend to advocate for more diverse representations, while the latter boycott often express concerns or penalize representations that may not reflect authentic characterizations or merit-based qualifications. Over the past few years, for instance, food product branding that is in line with stereotypes and film/tv cast lists that are not in line with stereotypes have incited sharp attention from liberals and conservatives, respectively (Booker, 2020; Placido, 2022). The same stimulus (i.e., an advertisement, a movie

trailer, etc.) may incite strongly divergent actions such as praise and increased support from those who view it as positive progress, as opposed to criticism, penalizing review bombing, and other backlash from those who see it as undermining important cultural traditions or standards. Importantly, these stimuli—the portrayals of racial minorities and women—evoke the culture wars and, specifically, the struggle with EDI in America.

Although understanding psychological processes underlying these polarized viewpoints could help to defuse these palpable real-world tensions, comprehensive research on the intersection of political ideology, EDI, and marginalized group stereotypes is limited. Notable work has been conducted on each component of this intersection. For instance, research on political ideology has investigated the nuances underlying political disagreement, citing intolerance, between-group affect, heated dislike of political out-group members, and distinct cognitions and belief systems as important drivers of political polarization (Brandt et al., 2014; Crawford & Pilanski, 2014; Finkel et al., 2020; Iyengar & Westwood, 2015; Iyengar et al., 2019; Jost, 2017). Such polarization contributes to the way conservatives and liberals differentially perceive stereotypes of social identity groups. However, past research at the intersection of political ideology and social identity stereotypes has predominantly focused on how conservatives and liberals differ in their evaluations of *traditional* stereotypes (Angle et al., 2017; Nosek et al., 2007; Stern & Axt, 2021), showing differences between liberals and conservatives in their preference, endorsement, or perpetuation of commonly-held and pervasive stereotypes. This body of research suggests that liberals may be more implicitly malleable in their responses to traditional stereotypes (Angle et al., 2017), conservatives are more likely to endorse race and gender-based stereotypes (Stern & Axt, 2021), and that liberals and conservatives differ in both explicit evaluations and implicit perceptions of a series of social

identity-based stereotypes (Nosek et al., 2007). Some research has studied reactions to counterstereotypical portrayals of marginalized identities, but these often do not study differences in reactions by political ideology (Bettencourt et al., 1997; Damer et al., 2019; Matta & Folkes, 2005; Prati et al., 2015; Rudman & Fairchild, 2004; Stern et al., 2015), thus leaving open the critical question of how political ideology and stereotype portrayal interact.

Very little empirical work has simultaneously studied how political ideology affects reactions to explicit portrayals of marginalized identities that either *maintain or diverge* from traditional stereotypes, despite the considerable interconnection between political ideology and stereotype portrayal. As such, we seek to provide a thorough examination not only of how responses to stereotypical portrayals of race and gender may or may not differ from reactions to stereotype incongruent portrayals of the same subjects, but also of how these reactions depend upon the political ideology of the viewer. Our testing of the interactive dynamics of political ideology and stereotype portrayal on attitudes, economic attributions, and downstream behaviors will contribute a fuller understanding of the relationships between these important and socially contentious topics. Furthermore, we incorporate racial representation as an additional factor in understanding the effects of political ideology and stereotype portrayal on explicit evaluations and perceptions. Specifically, we vary the racial make-up in explicit stereotype congruent and explicit stereotype incongruent portrayals to assess the extent to which conservatives and liberals diverge in their direct evaluations of such representations.

Further, updated research on explicitly divergent or stereotype incongruent portrayals of marginalized identities that reflects the changing portrayals in current films, brand advertisements, and mainstream media is necessary in advancing our understanding of stereotypes over time. The theoretical and empirical attention given to stereotypes has

historically focused on explicit stereotypes and extended through contemporary frameworks (Fiske et al., 2002; Katz & Braly, 1933). As research developed, the field expanded significantly with increased attention to implicit social cognition (Greenwald & Banaji, 1995; Levy et al., 1998), focusing on implicit bias measurement and other measures beyond explicit self-report (Greenwald et al., 1998). Recent research has examined the relationship between these explicit and implicit domains (Nosek et al., 2007; Charlesworth & Banaji, 2019, 2021, 2022a, 2022b). In our work, we argue it is important to directly study explicitly stereotype congruent and stereotype incongruent portrayals, given the greater media coverage of explicit representations and the heightened attention that larger society is taking to how marginalized groups are portrayed. Indeed, in wider American society, explicit biases and preferences are frequently being expressed, oftentimes to staunch or extreme ends. Directly studying responses to explicit stereotype portrayals from opposing political ideologies reflects the current social moment. Moreover, focusing on explicit stereotypes and explicit reports of reactions to stereotype portrayal may reveal a new founded comfort or willingness among participants to openly express their potentially preferential or biased beliefs, in turn updating the research on explicit stereotypes. Thus, the present work investigates both explicitly stereotype congruent and explicitly stereotype incongruent portrayals of varying race and gender identities.

Here we investigate the simultaneous forces of political ideology, stereotype portrayal, and racial representation on attitudinal, economic, and behavioral outcomes. We test whether conservatives and liberals have similar or divergent judgments of stimuli that manipulate stereotype portrayal. To evaluate this, we conducted four preregistered experiments ($N = 5,125$) with U.S. citizens in which we operationalized stereotype portrayal as either stereotype congruent (i.e., depicting commonly-held stereotypes) or stereotype incongruent (i.e., absence of

commonly-held stereotypes, including depiction divergence from commonly-held stereotypes). In Studies 1 & 2, we present experimental stimuli that feature Black and Asian racial minorities; in Studies 3 & 4, we present experimental stimuli that include white models. The procedure was the same in each of the studies. First, participants were randomly assigned to either the stereotype congruent condition or the stereotype incongruent condition. They viewed pre-tested custom advertisements according to their condition assignment. As such, participants would view advertisements portraying Black and Asian racial minorities and/or women in contexts associated with their assigned stereotype portrayal condition (e.g., custom athletic gear modeled by Black men (congruent) versus modeled by Asian women (incongruent); software/IT services modeled by Asian men (congruent) versus Black women (incongruent); tutoring services modeled by white women (congruent) versus white men (incongruent)) (see Appendix Table B1 for experimental stimuli; Appendix B contains further details on pilot testing of the advertisement stimuli). Then, after viewing the stimuli, participants answered questions along our dependent measures: attitudinal perceptions, economic perceptions, and behavioral outcomes. Finally, participants responded to demographic questions measuring their political ideology, race, gender, age, income, and educational attainment.

Methods

We conducted one Pilot Study experiment, one Preliminary Study experiment, and four main preregistered quantitative experiments (Studies 1-4) using online samples of liberal and conservative participants. Preregistration documents for all studies can be found at our OSF project repository, which is publicly accessible at the following link: <https://osf.io/cxpgk/>.

Please see Appendix B for detailed methods and sample information for Pilot Study and Preliminary Study.

Below, we provide methodological details for our main experiments, Studies 1-4.

Research Sample

The research sample consists of U.S. adults who are strongly and consistently liberal or conservative in their self-reported political ideology. In recruiting and obtaining responses from our sample, we have complied with all relevant ethical regulations. This research protocol was approved by UCLA's Institutional Review Board. All participants provided informed consent to participate, and no deception was utilized in this study.

Sampling Strategy

We used convenience sampling via online survey panels (TurkPrime, Prolific, and CloudResearch Connect), given their ease and ability in reaching participants by ideology (and, in particular, difficult-to-reach Conservative participants). We measured distinct samples across four separate studies consisting of unique participants (i.e., no participants had taken a previous study). Participants were paid \$2 to \$5 for their participation.

A note on recruiting samples of politically liberal and politically conservative participants using online panels: The online survey panels (e.g., TurkPrime and Prolific) feature pre-screening tools based on participants' demographics. We used the panels' pre-screening questions capturing participants' political ideology in attempt to recruit balanced samples of liberals and conservatives. We do not use the online panels' pre-screening tools alone to identify participants' political ideology in our analyses, which may be outdated; to identify participants' political ideology, we use our demographic questions, which are asked after the main dependent variable measures and at the end of each survey. Our online surveys were advertised in terms of general perceptions, attitudes, behavior, and decision-making, and in no way mentioned political ideology, political beliefs, stereotypes, race, or gender. Additionally, researchers' usage of the

pre-screening tool provided by the online survey panel is not shared with participants. We expect no priming effect of political ideology on our results.

Data Collection

Data was collected online using online survey panels, TurkPrime, Prolific, or CloudResearch Connect. Participants were online workers who would complete an online experimental survey, which was hosted on Qualtrics.

Regarding sample size calculations:

For Studies 1-3, we did not perform a sample size calculation and instead preregistered large numbers of Liberal participants and Conservative participants, given our dual desires to not only recruit a balanced Liberal and Conservative sample but also to achieve high statistical power.

Our preregistration for Study 1a (February 24, 2023) notes: “We will seek an increase in statistical power by recruiting a larger $N = 800$ sample size. Additionally, we will seek to evenly balances political ideology ($n = 400$ politically liberal and $n = 400$ politically conservative). Due to attention check and failure-to-finish rate of about 15%, we will recruit $N = 920$ to get to clean $N = 800$,” and our preregistration for Study 1b (May 5, 2023) notes: “We will seek an increase in statistical power by recruiting a larger $N = 200$ sample size. Additionally, we will seek to evenly balances political ideology ($n = 100$ politically liberal and $n = 100$ politically conservative). Due to attention check and failure-to-finish rates, we will recruit $N = 300$ to get to clean $N = 200$ We will merge Study [1]b’s clean data with Study [1](a)’s clean data in order to increase statistical power. This will be similar to a mini meta-analysis (e.g., Goh et al., 2016).”

Our preregistration for Study 2 (November 7, 2023) notes: “We will seek $n = 525$ liberal and $n = 525$ conservative participants. First, we are seeking a sample balanced on political

ideology. Second, we are seeking to obtain as many participants as is feasible and realistic using Prolific, which has a smaller and less active conservative population.”

Our preregistration for Study 3 (January 18, 2024) notes: “We will seek strong statistical power by recruiting a large sample size. Additionally, we will seek to evenly balances political ideology (50% politically liberal and 50% politically conservative). Due to attention check and failure-to-finish rates, as well as the difficulty of achieving Conservative participants, we will recruit as large of a sample size as we can, aiming for at least $n = 250$ conservatives.” This was amended in a subsequent preregistration posted to OSF (January 30, 2024), stating: “We will seek strong statistical power by recruiting a large $N = 900$ sample size. Additionally, we will seek to evenly balances political ideology ($n = 450$ politically liberal and $n = 450$ politically conservative). Due to attention check and failure-to-finish rates, we will recruit $N = 1000$ to get to clean $N = 900$.”

For Study 4, which preregistered a three-way factorial experimental design, we calculated the sample size required to detect an exploratory three-way interaction effect. Our preregistration for Study 4 (February 27, 2025) notes: “We will aim for 2500+300 participants, as we seek a sample that will be statistically powerful enough to detect an exploratory three-way interaction (2500; this sample size was calculated based on the average effect size f from previous studies ($f = .1105$) with 80% statistical power and alpha level $\alpha = .05$) and we are accounting for a 12% exclusion rate of participants (300). Therefore, we will aim to recruit 2800 participants, balanced between liberals (1400) and conservatives (1400). We will run two concurrent and separate surveys using CloudResearch Connect’s pre-screeners for liberals and conservatives. We will monitor progress across both surveys such that participants accrue at roughly the same rate and such that we can close both surveys at the same time. We may run a second wave of surveys

using higher incentives or using other platforms in case we are not able to reach our balanced sample in the first set of CloudResearch Connect surveys.”

Preregistration documents for all studies can be found at our OSF project repository, which is publicly accessible at the following link: <https://osf.io/expgk/>.

Timing

Please note for the Studies 1-4, we launched concurrently running surveys that targeted Liberals (Libs) and Conservatives (Cons) using the online survey panel pre-screeners that enabled us to directly seek specific political ideologies. Analysis was done with the merged study data (i.e., Libs and Cons combined).

Timing for each study is as follows:

Study 1: Study 1 is a mini-meta study of Study 1a and Study 1b; we merged Study 1a (March 2023) and Study 1b (May/June 2023) data in order to increase our sample size and statistical power. We preregistered the additional recruitment of participants for Study 1b and preregistered our mini-meta analysis approach. Study 1a: March 6, 2023 – March 9, 2023 (Libs) and March 6, 2023 – March 20, 2023 (Cons). Study 1b: May 9, 2023 – May 15, 2023 (Libs) and May 9, 2023 – June 5, 2023 (Cons). In general, there are fewer active participants who are politically conservative on the online panels, and so we allowed the Cons surveys to run longer in order to capture as many conservative participants as possible.

Study 2: October 18, 2023 – November 14, 2023 (Libs) and a similar period of October 18, 2023 – November 18, 2023 (Cons).

Study 3: January 26, 2024 – February 1, 2024 (Libs) and the same period of January 26, 2024 – February 1, 2024 (Cons).

Study 4: February 28, 2025 – March 19, 2025 (Libs) and the same period of February 28, 2025 – March 19, 2025 (Cons).

Data Exclusions

Study 1: As preregistered, we excluded data from participants who did any of the following: did not complete the full survey including the final question (more details below in the Non-Participation section, $n = 163$), were duplicate respondents ($n = 7$), or who did not respond correctly to attention check questions ($n = 13$). We also excluded data from participants who spent less than 300 seconds (5 minutes) on the entire survey ($n = 22$), which we did not preregister but view as a best practice for attempting to, firstly, exclude bots impersonating real human participants and, secondly, ensure higher quality participant data. In total, this led to excluding data from $n = 205$ participants. Additionally, we excluded from analysis data from individuals who were not consistently and strongly politically self-identified (i.e., excluded participants who were politically moderate or politically independent, $n = 181$). This yielded a final sample of $n = 958$ Liberal and Conservative participants.

Study 2: As preregistered, we excluded data from participants who did any of the following: did not complete the full survey including the final question (more details below in the Non-Participation section, $n = 277$), were duplicate respondents ($n = 0$), or who did not respond correctly to attention check questions ($n = 4$). We also excluded data from participants who spent less than 300 seconds (5 minutes) on the entire survey ($n = 4$), which we did not preregister but did for the same reasons as noted in Study 2, and for consistency between studies. In total, this led to excluding data from $n = 285$ participants. Additionally, we excluded from analysis data from individuals who were not consistently and strongly politically self-identified

(i.e., excluded participants who were politically moderate or politically independent, $n = 144$). This yielded a final sample of $n = 900$ Liberal and Conservative participants.

Study 3: As preregistered, we excluded data from participants who did any of the following: did not complete the full survey including the final question (more details below in the Non-Participation section, $n = 147$), were duplicate respondents ($n = 0$), or who did not respond correctly to attention check questions ($n = 7$). We also excluded data from participants who spent less than 300 seconds (5 minutes) on the entire survey ($n = 3$), which we did not preregister but did for the same reasons as noted in Study 1, and for consistency between studies. And, we removed data from participants whom we used to pilot test this survey ($n = 45$), which we mentioned in our preregistration; we excluded this data in best practice of maintaining similar timing for the main sample. Further, we removed data from participants who responded affirmatively to a question on whether they had taken similar survey on this topic before ($n = 42$), as an additional check of removing those who were familiar with the survey; we did not ask this question in previous studies, and instead relied on the online survey panel's (i.e., TurkPrime's or Prolific's) exclusion tool, which excludes participants who had taken previous studies from seeing or entering the present study. In total, this led to excluding data from $n = 244$ participants. Additionally, we excluded from analysis data from individuals who were not consistently and strongly politically self-identified (i.e., excluded participants who were politically moderate or politically independent, $n = 108$). This yielded a final sample of $n = 783$ Liberal and Conservative participants.

Study 4: As preregistered, we excluded data from participants who did any of the following: did not complete the full survey including the final question (more details below in the Non-participation section, $n = 407$), who were not strong in their political ideology ($n = 397$),

or who did not respond correctly to attention check questions ($n = 22$). We also checked participant data for participants who spent less than 300 seconds (5 minutes) on the entire survey ($n = 0$) and for participants who were duplicate respondents ($n = 1$), which we did not preregister but used as exclusion criteria for the same reasons as noted in previous studies and for consistency between studies. Further, we excluded data from participants who responded affirmatively to a question on whether they had taken similar survey on this topic before ($n = 34$) as an additional check of removing participants who were familiar with the survey and may have taken a survey for a previous study hosted on another participant recruitment platform. In total, this led to excluding data from $n = 861$ participants. This yielded a final sample of $n = 2,484$ Liberal and Conservative participants.

Non-Participation

Study 1: 163 participants did not complete the full survey including the final question. We received raw data from $n = 1,344$ participants, yielding an 87.9% completion rate.

Study 2: 277 participants did not complete the full survey including the final question. We received raw data from $n = 1,329$ participants, yielding a 79.2% completion rate.

Study 3: 147 participants did not complete the full survey including the final question. We received raw data from $n = 1,135$ participants, yielding a 87.0% completion rate.

Study 4: 407 participants did not complete the full survey including the final question. We received raw data from $n = 3,355$ participants, yielding a 87.9% completion rate.

Randomization

In Studies 1-3, participants were randomly assigned to one of two Stereotype Portrayal conditions (stereotype congruent portrayal OR stereotype incongruent portrayal). We set the randomization to be evenly populated, such that 50% of participants are assigned to congruent

condition and 50% are assigned to incongruent. In Study 4, which used a 2 (participant political ideology) x 2 (stereotype portrayal) x 2 (model race) three-factor design, participants were randomly assigned to one of two Stereotype Portrayal conditions at a 50-50% even distribution and to one of two Model Race conditions (minority OR white models) at a 50-50% even distribution.

Stimuli

The custom advertisements used in these experiments were created by the study team and pre-tested for realism and stereotype alignment. Please see Appendix B subsections “Pilot Study: Testing Advertisement Stimuli” and “Study 4 Supplementary Details” for complete details on the pre-test methods, analyses, and results.

Final Sample Sizes

Study 1 participants ($n = 1,139$ U.S. adults; $n_{\text{liberal}} = 535$, $n_{\text{conservative}} = 423$, $n_{\text{moderate/independent}} = 181$) were recruited from TurkPrime (<https://www.cloudresearch.com/>).

Study 2 participants ($n = 1,044$ U.S. adults; $n_{\text{liberal}} = 549$, $n_{\text{conservative}} = 351$, $n_{\text{moderate/independent}} = 144$) were recruited from Prolific (<https://app.prolific.com/>).

Study 3 participants ($n = 891$ U.S. adults; $n_{\text{liberal}} = 406$, $n_{\text{conservative}} = 377$, $n_{\text{moderate/independent}} = 108$) were recruited from TurkPrime (<https://www.cloudresearch.com/>).

Study 4 participants ($n = 2,881$ U.S. adults; $n_{\text{liberal}} = 1,323$, $n_{\text{conservative}} = 1,161$, $n_{\text{moderate/independent}} = 397$) were recruited from CloudResearch Connect (<https://connect.cloudresearch.com/>).

Please see Appendix Table B9 for a summary table of all studies’ sample size by condition.

Sample Demographics

Participants provided their self-identification for sex/gender and race/ethnicity. Please see Tables 3-6 for participant race and gender breakdowns for each study.

Composite Index Measures

We created separate composite index measures for participant political ideology, attitudinal perceptions, and economic perceptions. Please see Appendix B subsection “Index Measures” for complete details on all index measures.

Below, we report preregistered and exploratory analyses of primary interest. Additional preregistered analyses of secondary interest are reported in Appendix B.

Results

All statistics reported in the result section are conducted using preregistered between-groups factorial analyses of variance (ANOVA). We also conducted follow-up and exploratory linear regression models that control for participants’ age, race, gender, income, and educational attainment. In probing interaction effects to better understand pairwise differences, we conduct follow-up simple effects analysis and *t*-tests when appropriate.

We conducted four preregistered experiments, Studies 1-4.

Prior to Study 1, we conducted a stimuli pre-test Pilot Study and a preregistered Preliminary Study. Study details and results for Pilot Study and Preliminary Study are reported in Appendix B.

For all studies, we leave secondary and exploratory test results in the online supplementary materials available at <https://www.nature.com/articles/s44271-025-00287-6>. These exploratory tests include linear regression models on our outcome measures that include

the insubstantial politically moderate participants that completed our studies and exploratory mediation analyses that are not central to our central research question or hypotheses.

We presently organize our results by outcome variable for our first two studies, Studies 1 & 2.

Attitudinal Outcomes: Perceptions of Liking, Comfort, and Persuasiveness

We conducted experiments with politically conservative (cons) and liberal (libs) U.S. citizens who were randomly assigned to stereotype congruent (cong) vs. incongruent (incong) conditions that depicted Black and Asian racial minorities and manipulated related race and gender stereotypes in workplace advertisements. We asked participants to rate their liking, comfort with, and persuasiveness of the advertisement, which we collapsed into an index measure of attitudinal perceptions (see Appendix B subsection “Index Measures” for more details on individual items and index outcomes).

In Study 1, we conducted two preregistered waves of sample collection and used a mini meta-analysis approach in merging the data (i.e., Goh et al., 2016) in order to obtain a large sample that balanced conservative and liberal participants. Running a confirmatory factorial ANOVA, we found a significant interaction effect of stereotype portrayal and political ideology on attitudes ($M_{\text{cons}*\text{cong}} = 4.91$, $SD_{\text{cons}*\text{cong}} = 1.05$, $M_{\text{cons}*\text{incong}} = 4.85$, $SD_{\text{cons}*\text{incong}} = 1.12$, $M_{\text{libs}*\text{cong}} = 5.10$, $SD_{\text{libs}*\text{cong}} = 0.95$, $M_{\text{libs}*\text{incong}} = 5.29$, $SD_{\text{libs}*\text{incong}} = 0.80$; $F_{(1,954)} = 3.98$, $p = .046$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-1A). This result held in an exploratory linear regression ($b = 0.25$, $SE = 0.13$, $p = .046$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]). In an exploratory linear regression holding participants’ age, race, gender, income, and educational attainment constant, we find similar directional results, though this result was not statistically significant ($b = 0.22$, $SE = 0.12$, $p = .081$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]). Exploratory simple effects analyses showed a

significant difference among liberals evaluating congruent versus incongruent portrayals ($t_{(954)} = 2.29, p = .022$, Cohen's $d = 0.15$, 95% CI = [0.02, 0.28]), a significant difference between liberals and conservatives evaluating congruent portrayals ($t_{(954)} = 2.13, p = .033$, Cohen's $d = 0.14$, 95% CI = [0.01, 0.26]), and a significant difference between liberals and conservatives evaluating incongruent portrayals ($t_{(954)} = 5.00, p < .001$, Cohen's $d = 0.32$, 95% CI = [0.20, 0.45]), such that liberals preferred incongruent portrayals significantly more than congruent portrayals, and that liberals preferred both stereotype congruent and stereotype incongruent portrayals significantly more than conservatives. As we conducted two pre-registered waves of participant recruitment, we also calculate and report $p_{\text{augmented}}$ (i.e., Sagarin et al., 2014) for Study 1's results in Appendix B subsection "Study 1 Supplementary Details."

Next, in Study 2, we found the same pattern of significant interaction results ($M_{\text{cons}*\text{cong}} = 4.90, SD_{\text{cons}*\text{cong}} = 1.12, M_{\text{cons}*\text{incong}} = 4.80, SD_{\text{cons}*\text{incong}} = 1.16, M_{\text{libs}*\text{cong}} = 5.10, SD_{\text{libs}*\text{cong}} = 1.01, M_{\text{libs}*\text{incong}} = 5.30, SD_{\text{libs}*\text{incong}} = 0.92; F_{(1,896)} = 4.62, p = .032, \eta^2_p < .01, 95\% \text{ CI} = [0.00, 1.00]$) (see Figure 2-1B). These results held in a linear regression with and without holding constant participants' age, race, gender, income, and educational attainment ($b = 0.30, SE = 0.14, p = .034, \eta^2_p < .01, 95\% \text{ CI} = [0.00, 1.00]; b = 0.30, SE = 0.14, p = .032, \eta^2_p < .01, 95\% \text{ CI} = [0.00, 1.00]$). Simple effects analyses showed a significant difference among liberals evaluating congruent versus incongruent portrayals ($t_{(896)} = 2.24, p = .025$, Cohen's $d = 0.15$, 95% CI = [0.02, 0.28]) and between liberals and conservatives evaluating incongruent portrayals ($t_{(896)} = 5.06, p < .001, d = 0.34$, 95% CI = [0.21, 0.47]), revealing again that liberals favored stereotype incongruent portrayals significantly more than conservatives. New in Study 2 is the finding that liberals seem to like all portrayals more than conservatives, which we seek to better understand in Studies 3 & 4.

Across Studies 1 & 2, we found interaction effects of political ideology and stereotype portrayal on attitudinal measures. We find consistent divergence in reactions to stereotype portrayals between conservatives and liberals, showing that participants' attitudinal preferences depended on both their political orientation and the way the advertisements were portrayed. This was specifically apparent in the incongruent stereotype portrayal conditions, wherein conservatives rated incongruent portrayals significantly lower than liberals, who showed high attitudes towards incongruent portrayals.

Notably, our findings in Studies 1 & 2 show that liberals have higher attitudinal ratings than conservatives, regardless of stereotype portrayal. We did not hypothesize or preregister this underlying main effect of political ideology on attitudinal perceptions, but suspect that it is driven by the stimuli. The advertisements featured in Studies 1 & 2 feature only racial minorities and no white models. Participants may be reacting to this in different ways. Upon seeing diverse racial minority models, liberals may be amplifying their endorsement of minority representation. Alternatively (or additionally), upon seeing only racial minority models, conservatives may be expressing their backlash towards the exclusion of white models. We follow up on this finding in Study 3, in which we employ advertisements that feature only white models and manipulate gender-based stereotypes.

Economic Outcomes: Perceptions of Monetary Value

We also included measures of economic perceptions of value (i.e., willingness to pay for product/service and predicted monetary worth to others) (see Appendix B subsection “Index Measures” for more details on individual items and index outcomes).

In Study 1, we found a significant interaction effect along economic perceptions ($M_{\text{cons}*\text{cong}} = \216 , $SD_{\text{cons}*\text{cong}} = \127 , $M_{\text{cons}*\text{incong}} = \186 , $SD_{\text{cons}*\text{incong}} = \107 , $M_{\text{libs}*\text{cong}} = \231 ,

$SD_{\text{libs}*\text{cong}} = \128 , $M_{\text{libs}*\text{incong}} = \240 , $SD_{\text{libs}*\text{incong}} = \124 ; $F_{(1, 954)} = 6.23$, $p = .013$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-2A). This finding was robust in a linear regression ($b = 39.72$, $SE = 15.91$, $p = .013$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]), and was directionally similar in a linear regression controlling for participants' age, race, gender, income, and educational attainment, though this result did not show evidence of statistical significance ($b = 34.88$, $SE = 15.70$, $p = .027$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]). Exploratory simple effects analyses showed a significant difference among conservatives evaluating congruent versus incongruent portrayals ($t_{(954)} = 2.55$, $p = .011$, Cohen's $d = 0.17$, 95% CI = [0.04, 0.29]), and a significant difference between liberal and conservative responses to incongruent portrayals ($t_{(954)} = 4.88$, $p < .001$, Cohen's $d = 0.32$, 95% CI = [0.19, 0.44]). Thus, participants' economic perceptions—similar to their attitudinal perceptions—depended on the interaction between their political orientation and the advertisements' portrayal, with a particularly consistent divergence between liberals and conservatives evaluating incongruent stereotype portrayals.

In Study 2, we found no evidence for a statistically significant interaction effect of political ideology and stereotype portrayal on economic perceptions ($M_{\text{cons}*\text{cong}} = \165 , $SD_{\text{cons}*\text{cong}} = \115 , $M_{\text{cons}*\text{incong}} = \172 , $SD_{\text{cons}*\text{incong}} = \117 , $M_{\text{libs}*\text{cong}} = \184 , $SD_{\text{libs}*\text{cong}} = \114 , $M_{\text{libs}*\text{incong}} = \203 , $SD_{\text{libs}*\text{incong}} = \139 ; $F_{(1, 896)} = 0.53$, $p = .467$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-2B). Probing this result, we ran an independent samples t -test and found a significant main effect of political ideology on economic perceptions ($M_{\text{cons}} = \$169$, $SD_{\text{cons}} = \$116$, $M_{\text{libs}} = \$194$, $SD_{\text{libs}} = \$128$; $t_{(898)} = 3.00$, $p = .003$, Cohen's $d = 0.20$, 95% CI = [0.07, 0.34]), revealing that liberals spend significantly more than conservatives across all stereotype portrayal conditions. While Study 2 failed to show a significant interaction effect, perhaps due to timing or sample constraints, the significant main effect of political ideology on economic

perceptions is worth noting. We consider the pattern of liberals attributing significantly higher value to all advertised goods/services than conservatives, which is in line with the main effect of political ideology on attitudinal outcomes previously reported, to be interesting and worth following up on in our Study 3 that serves as a paradigm replication.

Behavioral Outcomes: Downstream Hiring Selection

For our third and final outcome measure, we presented participants with a software hiring context and asked participants which job candidate they would hire, specifying that the performance of their candidate would reflect on their own performance (see Appendix B subsection “Vignette Hiring Stimuli (Studies 1-3)” for more details on the vignette-style measure).

In Study 1, we found no evidence for a statistically significant interaction effect of political ideology and stereotype portrayal on job candidate choice ($M_{\text{cons}*\text{cong}} = 0.40$, $SD_{\text{cons}*\text{cong}} = 0.49$, $M_{\text{cons}*\text{incong}} = 0.39$, $SD_{\text{cons}*\text{incong}} = 0.49$, $M_{\text{libs}*\text{cong}} = 0.24$, $SD_{\text{libs}*\text{cong}} = 0.43$, $M_{\text{libs}*\text{incong}} = 0.23$, $SD_{\text{libs}*\text{incong}} = 0.42$; $F_{(1,954)} < 0.01$, $p = .981$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]). However, following our preregistration, we test for and found a significant main effect by political ideology ($F_{(1, 956)} = 29.10$, $p < .001$, $\eta^2_p = .03$, 95% CI = [0.01, 1.00]), showing that conservative participants ($M_{\text{cons}} = 0.40$, $SD_{\text{cons}} = 0.49$) were more likely than liberal participants ($M_{\text{libs}} = 0.24$, $SD_{\text{libs}} = 0.43$) to choose the stereotype congruent Asian Male candidate (see Figure 2-3A).

In Study 2, we found a significant interaction effect ($M_{\text{cons}*\text{cong}} = 0.44$, $SD_{\text{cons}*\text{cong}} = 0.50$, $M_{\text{cons}*\text{incong}} = 0.52$, $SD_{\text{cons}*\text{incong}} = 0.50$, $M_{\text{libs}*\text{cong}} = 0.29$, $SD_{\text{libs}*\text{cong}} = 0.45$, $M_{\text{libs}*\text{incong}} = 0.21$, $SD_{\text{libs}*\text{incong}} = 0.41$; $F_{(1,896)} = 5.99$, $p = .015$; $\eta^2_p < .01$, 95% CI = [0.00, 1.00]), which held in linear regression models with and without controlling for participants’ age, race, gender, income, and educational attainment ($b = 0.16$, $SE = 0.06$, $p = .013$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]; $b = 0.15$,

$SE = 0.06, p = .015, \eta^2_p < .01, 95\% \text{ CI} = [0.00, 1.00]$). Simple effects analyses showed a significant difference between liberals and conservatives in both the congruent condition ($t_{(896)} = 3.34, p < .001, \text{Cohen's } d = 0.22, 95\% \text{ CI} = [0.09, 0.35]$) and the incongruent condition ($t_{(896)} = 6.93, p < .001, \text{Cohen's } d = 0.46, 95\% \text{ CI} = [0.33, 0.60]$). There was also a significant main effect of political ideology ($M_{\text{cons}} = 0.48, SD_{\text{cons}} = 0.50, M_{\text{libs}} = 0.25, SD_{\text{libs}} = 0.43; t_{(898)} = 7.05, p < .001, \text{Cohen's } d = 0.50, 95\% \text{ CI} = [0.36, 0.63]$) on software candidate selection (see Figure 2-3B).

The results from Study 2 show that the behavioral selection of a stereotype congruent software candidate is more likely to occur among conservative participants in general and is most likely to occur among conservative participants who viewed incongruent stereotype portrayals, which suggests a penalization effect of incongruent ads on conservatives who later acted more often in line with their preference for endorsing traditional stereotypes. Additionally, while liberals in general were already less likely than conservatives to choose the stereotype congruent software candidate, liberals who had viewed incongruent stereotype portrayals were even less likely to choose the congruent candidate, which suggests a boosting effect of incongruent ads for liberals to further act upon their preference for progressive portrayals of minorities. The same incongruent ads led to even more amplified and divergent responses from conservatives and liberals, who acted upon their previous preferences and were more likely to endorse stereotype congruency or stereotype incongruency, respectively, after viewing the ads.

Overall, our results on behavioral outcomes suggest that the effect of stereotype portrayal and political ideology was inconsistent along behavioral measures—perhaps due to the timing or sample constraints of our studies, but at times did show either a penalization or boosting effect

on participants' behavioral choices. Further, political ideology alone consistently predicted the choices and endorsements of stereotypes.

Paradigm Replication: White Models and Gender Stereotypes

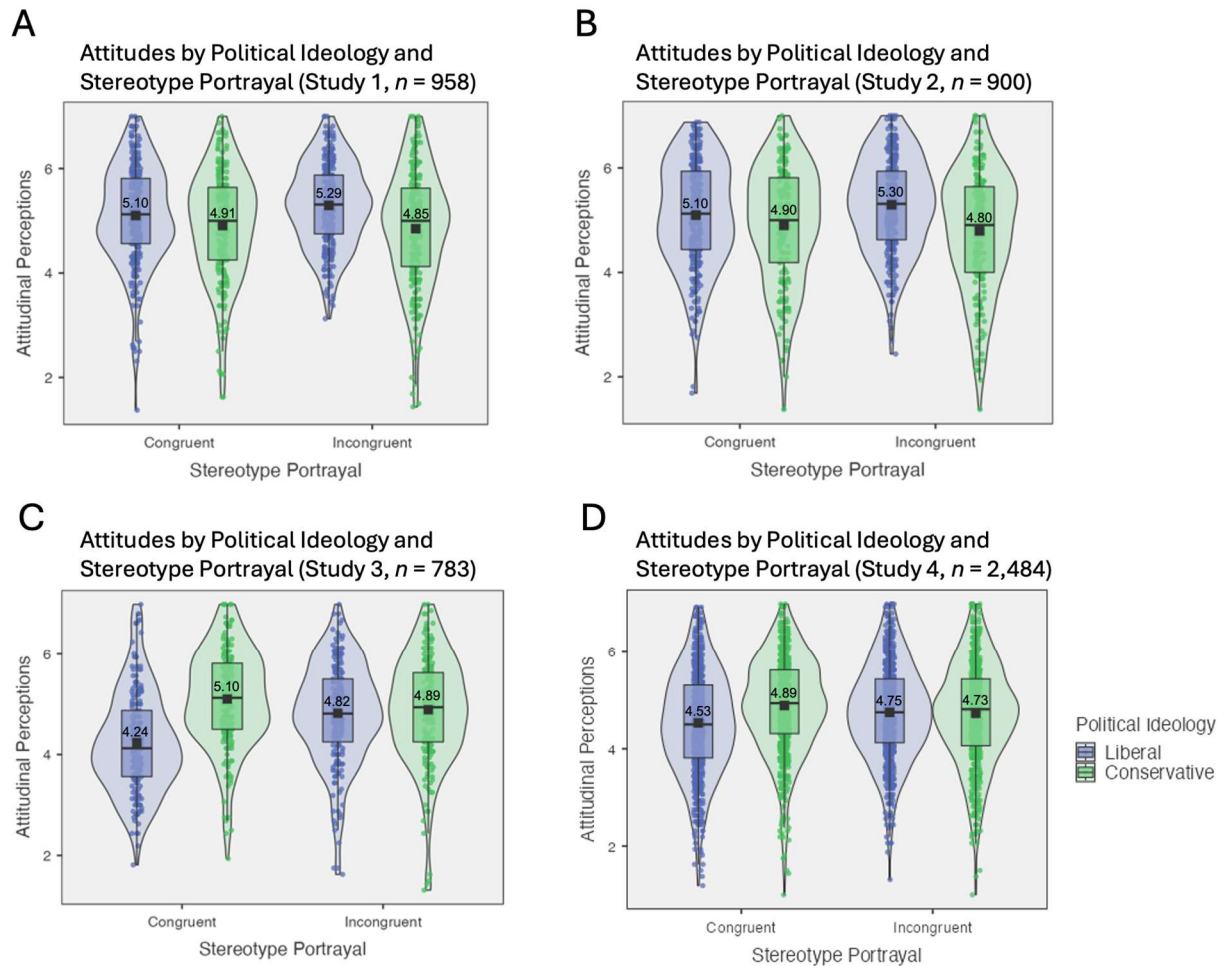
Next, in Study 3, we tested our paradigm for replication of previous interaction effects by using advertisements that depicted solely white models maintaining the same contexts used in previous studies (see Appendix Table B1 for experimental stimuli).

Beyond paradigm replication, another rationalization for running this paradigm test was to investigate a pattern of results from preceding studies wherein liberals reported more favorable attitudinal and economic perceptions than conservatives overall. Our intuition is that liberals reacted positively to the advertisements in the prior studies because the ads featured all racial minorities which perhaps matches liberals' ideological beliefs, while conservatives responded negatively to those same advertisements perhaps because they featured no white models and violated their ideological beliefs. As such, we run Study 3 to probe whether a similar liberal boost effect would be present when the advertisements did not make race-based stereotypes salient, but rather portrayed and manipulated gender-based stereotypes, and when the models were all white.

Attitudes. We found a significant interaction effect of stereotype portrayal and political ideology on attitudinal perceptions ($M_{\text{cons}*\text{cong}} = 5.10$, $SD_{\text{cons}*\text{cong}} = 0.97$, $M_{\text{cons}*\text{incong}} = 4.89$, $SD_{\text{cons}*\text{incong}} = 1.06$, $M_{\text{libs}*\text{cong}} = 4.24$, $SD_{\text{libs}*\text{cong}} = 1.00$, $M_{\text{libs}*\text{incong}} = 4.82$, $SD_{\text{libs}*\text{incong}} = 1.00$; $F_{(1,779)} = 30.18$, $p < .001$, $\eta^2_p = .04$, 95% CI = [0.02, 1.00]) (see Figure 2-1C), which held in a linear regression ($b = 0.79$, $SE = 0.14$, $p < .001$, $\eta^2_p = .04$, 95% CI = [0.02, 1.00]) as well as a linear regression controlling for participants' age, race, gender, income, and educational attainment ($b = 0.81$, $SE = 0.14$, $p < .001$, $\eta^2_p = .04$, 95% CI = [0.02, 1.00]). Exploratory simple

Figure 2-1

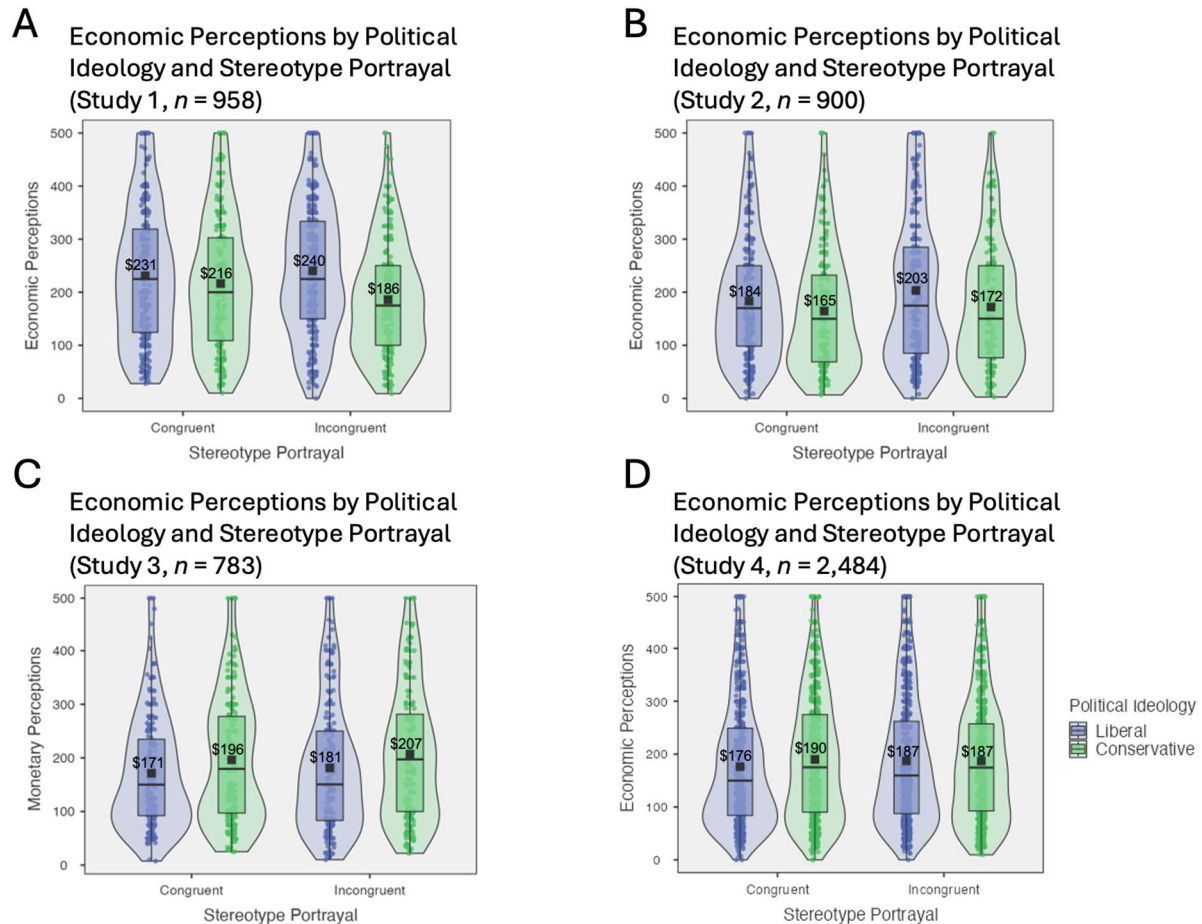
Violin Plots for Attitudinal Perceptions by Stereotype Portrayal and Political Ideology, Studies 1-4 (Panels A-D)



Note. Violin plot for Study 1 is contained in Figure 2-1, Panel A (Figure 2-1A); Study 2 is contained in Figure 2-1B; Study 3 is contained in Figure 2-1C; Study 4 is contained in Figure 2-1D. These violin plots map the mean (i.e., black square point), raw data (i.e., circular points), and box-plot elements (i.e., center line, median; box limits, upper and lower quartiles; whiskers, 1.5x interquartile range).

Figure 2-2

Violin Plots for Economic Perceptions by Stereotype Portrayal and Political Ideology, Studies 1-4 (Panels A-D)

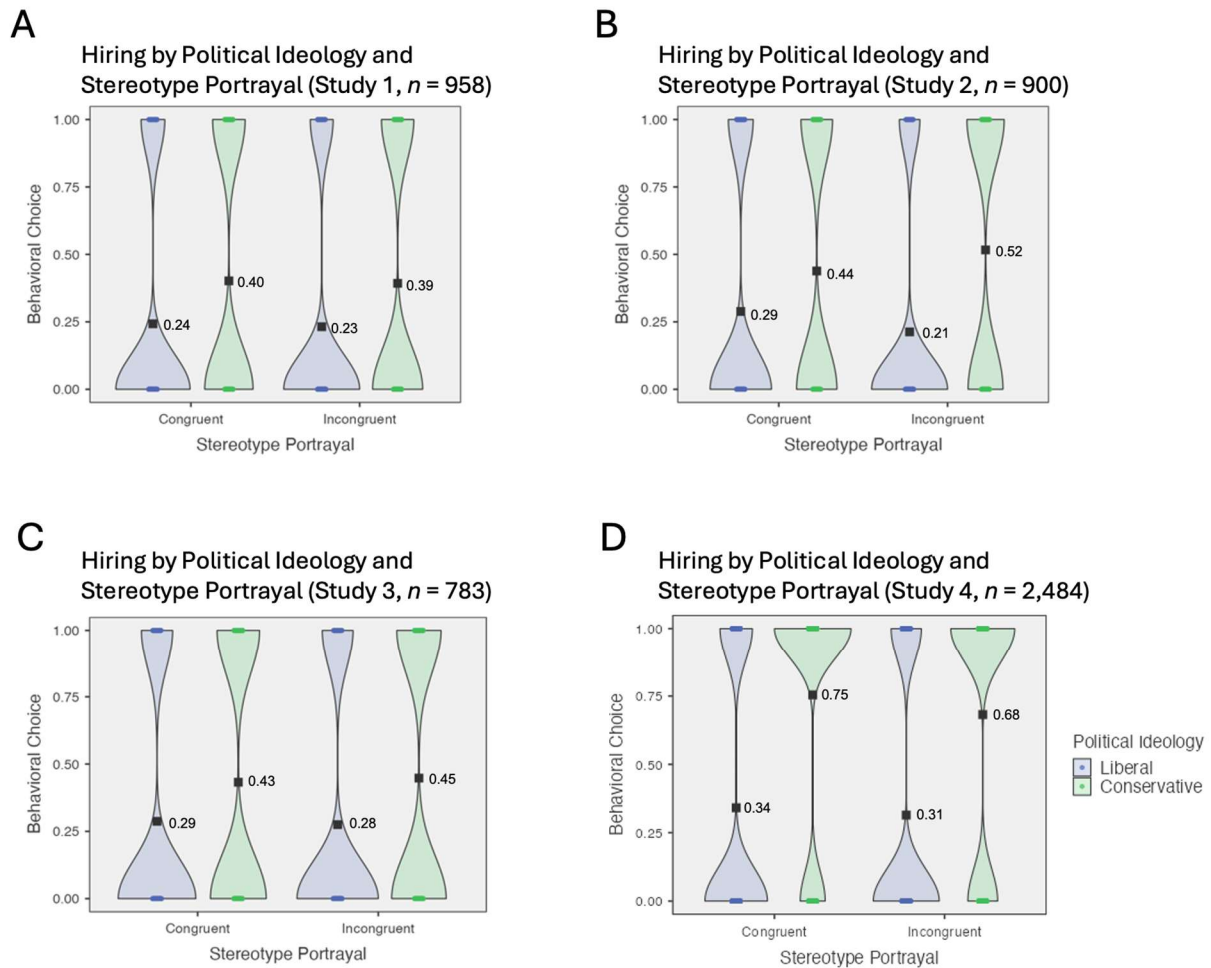


Note. Violin plot for Study 1 is contained in Figure 2-2A; Study 2 is contained in Figure 2-2B; Study 3 is contained in Figure 2-2C; Study 4 is contained in Figure 2-2D.

Figure 2-3

Violin Plots for Behavioral Choices by Stereotype Portrayal and Political Ideology, Studies 1-4

(Panels A-D)



Note. Violin plot for Study 1 is contained in Figure 2-3A; Study 2 is contained in Figure 2-3B; Study 3 is contained in Figure 2-3C; Study 4 is contained in Figure 2-3D. Y-axis Behavioral Choice: 0 = Stereotype Incongruent Candidate Hired, 1 = Stereotype Congruent Candidate Hired.

effects analyses revealed significant pairwise differences among conservatives in the congruent versus incongruent conditions ($t_{(779)} = 2.05, p = .041$, Cohen's $d = 0.15$, 95% CI = [0.01, 0.29]), among liberals in the congruent versus incongruent conditions ($t_{(779)} = 5.79, p < .001$, Cohen's $d = 0.41$, 95% CI = [0.27, 0.56]), and between liberals and conservatives evaluating congruent portrayals ($t_{(779)} = 8.34, p < .001$, Cohen's $d = 0.60$, 95% CI = [0.45, 0.74]). Exploratory t-tests revealed significant differences between liberals and conservatives ($M_{\text{cons}} = 4.99, SD_{\text{cons}} = 1.02, M_{\text{libs}} = 4.54, SD_{\text{libs}} = 1.04; t_{(781)} = 6.15, p < .001$, Cohen's $d = 0.44$, 95% CI = [0.30, 0.58]), and between congruent and incongruent conditions ($M_{\text{cong}} = 4.66, SD_{\text{cong}} = 1.08, M_{\text{incong}} = 4.85, SD_{\text{incong}} = 1.02; t_{(781)} = 2.57, p = .010$, Cohen's $d = 0.18$, 95% CI = [0.04, 0.32]).

Interestingly, in this study, which featured solely white models, conservatives preferred all advertisements more than liberals, thus flipping the pattern from Studies 1 & 2 in which liberals preferred all advertisements more than conservatives. Indeed, Study 3 shows that liberals perceived all advertisements less favorably than conservatives, but still preferred incongruent portrayals to congruent portrayals, while conservatives preferred congruent portrayals significantly more than liberals. Furthermore, incongruent portrayals were rated significantly higher than congruent portrayals by the entire sample, underscoring how liberals continue to prefer incongruent portrayals and how conservatives' new, higher attitudes towards incongruent portrayals collectively contribute to this main effect of stereotype portrayal. Thus, along our attitudinal perceptions outcome, we replicate the general interaction pattern and findings of divergence from Studies 1 & 2, but show that the racial makeup of the models in advertisements affects the directions of divergence.

Economic Perceptions. We did not find a significant interaction effect along economic perceptions ($M_{\text{cons}*\text{cong}} = \$196, SD_{\text{cons}*\text{cong}} = \$120, M_{\text{cons}*\text{incong}} = \$207, SD_{\text{cons}*\text{incong}} = \124 ,

$M_{\text{libs}*\text{cong}} = \171 , $SD_{\text{libs}*\text{cong}} = \106 , $M_{\text{libs}*\text{incong}} = \181 , $SD_{\text{libs}*\text{incong}} = \120 ; $F_{(1, 779)} < 0.01$, $p = .959$, $\eta^2_p < .001$, 95% CI = [0.00, 1.00]) (see Figure 2-2C). An exploratory t -test showed a significant difference between conservatives and liberals ($M_{\text{cons}} = \$202$, $SD_{\text{cons}} = \$122$, $M_{\text{libs}} = \$176$, $SD_{\text{libs}} = \$113$; $t_{(781)} = 3.01$, $p = .003$, Cohen's $d = 0.22$, 95% CI = [0.07, 0.36]). On average, conservatives attributed greater perceived value to all advertised goods/services compared to liberals, reversing the direction of preference from Studies 1 & 2 but maintaining the main effect of political ideology. With this, Study 3 reveals another reversal in outcomes between conservatives and liberals, such that conservatives report higher favorable perceptions that now supersede liberals' perceptions across the suite of advertisement stimuli, which is in response to the advertisements portraying all white models.

Downstream Hiring. Additionally, we found no evidence for a statistically significant interaction effect of political ideology and stereotype portrayal on job candidate choice ($M_{\text{cons}*\text{cong}} = 0.43$, $SD_{\text{cons}*\text{cong}} = 0.50$, $M_{\text{cons}*\text{incong}} = 0.45$, $SD_{\text{cons}*\text{incong}} = 0.50$, $M_{\text{libs}*\text{cong}} = 0.29$, $SD_{\text{libs}*\text{cong}} = 0.45$, $M_{\text{libs}*\text{incong}} = 0.28$, $SD_{\text{libs}*\text{incong}} = 0.45$; $F_{(1,779)} = 0.17$, $p = .682$, $\eta^2_p < .001$, 95% CI = [0.00, 1.00] (see Figure 2-3C); however, we found a significant main effect by political ideology ($t_{(781)} = 4.71$, $p < .001$, Cohen's $d = 0.34$, 95% CI = [0.20, 0.48]), showing that conservative participants ($M_{\text{cons}} = 0.44$, $SD_{\text{cons}} = 0.50$) were still more likely than liberal participants ($M_{\text{libs}} = 0.28$, $SD_{\text{libs}} = 0.45$) to choose the congruent Asian Male candidate, regardless of stereotype portrayal, which is consistent with previous studies.

As such, we find that our paradigm of manipulating stereotype portrayal to be either stereotype congruent or stereotype incongruent will indeed lead to divergent responses on attitudinal outcomes based on the political ideology of the viewer. Of note, in the case where we altered the race of the models being portrayed (i.e., all white models replacing all racial minority

models), responses from conservatives and liberals indeed diverged, but in a reversed pattern compared to previous studies.

Full Replication: Stereotype Portrayal, Model Race, and Political Ideology

Lastly, we conducted a final experiment in which we test our entire paradigm for replication and robustness. We used a factorial design specifying three factors: 2(*stereotype portrayal*: congruent, incongruent) x 2(*model race*: minority, white), x 2(*participant political ideology*: conservative, liberal). The stimuli we used in Study 4 are very similar to previous studies', with some modifications to enhance similarity in model facial expression, body language, and environment across conditions (see Appendix Table B1 for experimental stimuli). As in our Pilot Study, we pre-tested target advertisements for realism and stereotype alignment (see Appendix B subsection "Study 4 Supplementary Details" for pre-test results). As pre-registered, we focus on testing the interaction effects of *political ideology x stereotype portrayal*, of *political ideology x model race*, and of *political ideology x stereotype portrayal x model race* on our dependent measures. We leave the exploratory tests of *stereotype portrayal x model race* on our outcome measures to Appendix B subsection "Study 4 Supplementary Details," as these are not *a priori* confirmatory analyses.

Attitudes. We sought to understand how attitudes towards the target advertisements would change based on the advertisement's stereotype portrayal, the model race depicted in the advertisement, and participant ideology.

Confirmatory Two-Way Factorial ANOVAs. First, we conducted a confirmatory two-way factorial ANOVA investigating the effect of *political ideology* and *stereotype portrayal* on attitudes. We found a significant interaction effect on attitudes ($M_{\text{cons}*\text{cong}} = 4.89$, $SD_{\text{cons}*\text{cong}} = 1.01$, $M_{\text{cons}*\text{incong}} = 4.73$, $SD_{\text{cons}*\text{incong}} = 1.04$, $M_{\text{libs}*\text{cong}} = 4.53$, $SD_{\text{libs}*\text{cong}} = 1.07$, $M_{\text{libs}*\text{incong}} = 4.75$,

$SD_{\text{libs}*\text{incong}} = 0.98$; $F_{(1, 2480)} = 20.70$, $p < .001$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-1D), which held in a linear regression ($b = 0.38$, $SE = 0.08$, $p < .001$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) as well as a linear regression controlling for participants' age, race, gender, income, urban density, and educational attainment ($b = 0.38$, $SE = 0.08$, $p < .001$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]).

In simple effects analyses investigating the effect of stereotype portrayal at each level of political ideology, we found significant contrasts among liberals evaluating stereotype congruent versus incongruent stimuli ($t_{(2480)} = 3.84$, $p < .001$, Cohen's $d = 0.15$, 95% CI = [0.08, 0.23]) and among conservatives evaluating stereotype congruent versus incongruent stimuli ($t_{(2480)} = 2.63$, $p = .009$, Cohen's $d = 0.11$, 95% CI = [0.03, 0.18]), such that liberals preferred incongruent portrayals over congruent portrayals, while conservatives preferred congruent portrayals over incongruent portrayals. Evaluating the effect of political ideology at each stereotype portrayal condition, we found significant contrasts between liberal and conservative participants viewing stereotype congruent portrayals ($t_{(2480)} = 6.15$, $p < .001$, Cohen's $d = 0.25$, 95% CI = [0.17, 0.33]) such that conservatives expressed greater preference than liberals for congruent portrayals, but found no evidence for significant contrasts between liberal and conservative participants viewing incongruent portrayals ($t_{(2480)} = 0.31$, $p = .756$, Cohen's $d = 0.01$, 95% CI = [-0.07, 0.09]).

Second, we conducted a confirmatory two-way factorial ANOVA investigating the effect of *political ideology* and *model race* on attitudes. We found a significant interaction effect ($M_{\text{cons}*\text{minor}} = 4.74$, $SD_{\text{cons}*\text{minor}} = 1.10$, $M_{\text{cons}*\text{white}} = 4.88$, $SD_{\text{cons}*\text{white}} = 0.94$, $M_{\text{libs}*\text{minor}} = 4.88$, $SD_{\text{libs}*\text{minor}} = 0.96$, $M_{\text{libs}*\text{white}} = 4.38$, $SD_{\text{libs}*\text{white}} = 1.04$; $F_{(1, 2480)} = 59.91$, $p < .001$, $\eta^2_p = .02$, 95% CI = [0.01, 1.00]) (see Figure 2-4A). This result held in a linear regression model ($b = 0.63$, $SE =$

0.08, $p < .001$, $\eta^2_p = .02$, 95% CI = [0.01, 1.00]) and when controlling for participants' demographics ($b = 0.64$, $SE = 0.08$, $p < .001$, $\eta^2_p = .02$, 95% CI = [0.02, 1.00]).

Simple effects analyses showed significant contrasts between model race conditions among liberals ($t_{(2480)} = 8.94$, $p < .001$, Cohen's $d = 0.36$, 95% CI = [0.28, 0.44]) and among conservatives ($t_{(2480)} = 2.23$, $p = .026$, Cohen's $d = 0.09$, 95% CI = [0.01, 0.17]), revealing that liberals prefer advertisements featuring minority models significantly more than advertisements featuring white models, whereas conservatives prefer advertisements featuring white models significantly more than advertisements featuring minority models. Additionally, simple effect analyses revealed significant contrasts between conservatives and liberals evaluating advertisements with minority models ($t_{(2480)} = 2.41$, $p = .016$, Cohen's $d = 0.10$, 95% CI = [0.02, 0.18]) and advertisements with white models ($t_{(2480)} = 8.51$, $p < .001$, Cohen's $d = 0.34$, 95% CI = [0.26, 0.42]), such that liberals preferred minority models significantly more than conservatives, while conservatives prefer white models significantly more than liberals.

Please reference Appendix B for the secondary results of an exploratory two-way ANOVA testing for an interaction effect of *stereotype portrayal* and *model race* on attitudes.

Exploratory Three-Way Factorial ANOVAs. We were curious to explore whether an interaction effect of all three factors was significant and influenced attitudinal perceptions. As such, we conducted an exploratory three-way factorial ANOVA investigating the effect of *political ideology*, *stereotype condition*, and *model race* on attitudes. We found a significant three-way interaction effect on attitudes ($M_{\text{cons*cong*minor}} = 4.80$, $SD_{\text{cons*cong*minor}} = 1.08$, $M_{\text{cons*cong*white}} = 4.97$, $SD_{\text{cons*cong*white}} = 0.93$, $M_{\text{cons*incong*minor}} = 4.69$, $SD_{\text{cons*incong*minor}} = 1.12$, $M_{\text{cons*incong*white}} = 4.77$, $SD_{\text{cons*incong*white}} = 0.95$, $M_{\text{libs*cong*minor}} = 4.83$, $SD_{\text{libs*cong*minor}} = 1.00$, $M_{\text{libs*cong*white}} = 4.21$, $SD_{\text{libs*cong*white}} = 1.04$, $M_{\text{libs*incong*minor}} = 4.94$, $SD_{\text{libs*incong*minor}} = 0.92$,

$M_{\text{libs*incong*white}} = 4.56$, $SD_{\text{libs*incong*white}} = 1.01$; $F_{(1, 2476)} = 4.06$, $p = .044$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-5A). Exploring this significant three-way interaction, we conducted a simple effects analysis.

We first examined how the effect of political ideology varied across the levels of stereotype portrayal and model race. Among congruent portrayals, political ideology had a significant effect when white models were featured ($t_{(2476)} = 9.42$, $p < .001$, Cohen's $d = 0.38$, 95% CI = [0.30, 0.46]) such that conservatives expressed significantly higher attitudes toward white models than liberals. Among congruent portrayals, we found no evidence for a significant difference between conservatives and liberals evaluating ads featuring minority models ($t_{(2476)} = 0.38$, $p = .707$, Cohen's $d = 0.02$, 95% CI = [-0.06, 0.09]). Among incongruent portrayals, political ideology had a significant effect both when white models were featured ($t_{(2476)} = 2.62$, $p = .009$, Cohen's $d = 0.11$, 95% CI = [0.03, 0.18]) and when minority models were featured ($t_{(2476)} = 3.05$, $p = .002$, Cohen's $d = 0.12$, 95% CI = [0.04, 0.20]), revealing that, under incongruent conditions, conservatives significantly preferred white models more than liberals and that liberals significantly preferred minority models more than conservatives.

We also examined the effect of stereotype portrayal across the levels of political ideology and model race. For liberals, stereotype portrayal had a significant effect when white models were featured ($t_{(2476)} = 4.35$, $p < .001$, Cohen's $d = 0.17$, 95% CI = [0.10, 0.25]), but not when minority models were featured ($t_{(2476)} = 1.35$, $p = .176$, Cohen's $d = 0.05$, 95% CI = [-0.02, 0.13]). Liberals significantly preferred incongruent depictions of white models more than congruent depictions of white models but did not show any differences in attitudes toward minority models on the basis of stereotype portrayal. For conservatives, stereotype portrayal also had a significant effect on attitudes when white models were featured ($t_{(2476)} = 2.36$, $p = .019$,

Cohen's $d = 0.09$, 95% CI = [0.02, 0.17]), but not when minority models were featured ($t_{(2476)} = 1.31$, $p = .190$, Cohen's $d = 0.05$, 95% CI = [-0.03, 0.13]). Conservatives significantly preferred congruent portrayals of white models more than incongruent portrayals of white models and did not show any differences in attitudes toward minority models in congruent versus incongruent portrayals.

Further, we examined the effect of model race at each level of political ideology and stereotype portrayal. Among liberals, model race had a significant effect on attitudes under congruent stereotype portrayals ($t_{(2476)} = 7.96$, $p < .001$, Cohen's $d = 0.32$, 95% CI = [0.24, 0.40]) and under incongruent stereotype portrayals ($t_{(2476)} = 4.78$, $p < .001$, Cohen's $d = 0.19$, 95% CI = [0.11, 0.27]). Liberals prefer minority models significantly more than white models across both congruent and incongruent portrayal conditions. Among conservatives, model race had a significant effect on attitudes only under stereotype congruent portrayals ($t_{(2476)} = 2.03$, $p = .042$, Cohen's $d = 0.08$, 95% CI = [0.00, 0.16]) and not under stereotype incongruent portrayals ($t_{(2476)} = 0.99$, $p = .323$, Cohen's $d = 0.04$, 95% CI = [-0.04, 0.12]). Conservatives prefer white models significantly more than minority models under stereotype congruent portrayals, and showed no evidence of a significant difference in attitudes between minority or white models under stereotype incongruent portrayals.

Economic Perceptions. Next, we tested for interaction effects of our experimental factors to assess whether our manipulations affect economic perceptions of the target advertisements.

Confirmatory Two-Way Factorial ANOVAs. We first sought to evaluate two-way factorial interaction effects. In a confirmatory two-way factorial ANOVA investigating the effect of *political ideology* and *stereotype portrayal* on economic perceptions, we found no evidence

for a significant interaction effect ($M_{\text{cons}*\text{cong}} = \190 , $SD_{\text{cons}*\text{cong}} = \117 , $M_{\text{cons}*\text{incong}} = \187 , $SD_{\text{cons}*\text{incong}} = \118 , $M_{\text{libs}*\text{cong}} = \176 , $SD_{\text{libs}*\text{cong}} = \118 , $M_{\text{libs}*\text{incong}} = \187 , $SD_{\text{libs}*\text{incong}} = \123 ; $F_{(1, 2480)} = 2.10$, $p = .147$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-2D). We also found no evidence for significant main effects of political ideology ($M_{\text{cons}} = \$189$, $SD_{\text{cons}} = \$117$, $M_{\text{libs}} = \$182$, $SD_{\text{libs}} = \$120$; $F_{(1, 2480)} = 2.01$, $p = .156$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) or of stereotype portrayal ($M_{\text{cong}} = \$183$, $SD_{\text{cong}} = \$118$, $M_{\text{incong}} = \$187$, $SD_{\text{incong}} = \$120$; $F_{(1, 2480)} = 0.87$, $p = .351$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]).

Similarly, in a confirmatory two-way factorial ANOVA investigating the effect of *political ideology* and *model race* on economic perceptions, we found no evidence for a significant interaction effect ($M_{\text{cons}*\text{minor}} = \184 , $SD_{\text{cons}*\text{minor}} = \118 , $M_{\text{cons}*\text{white}} = \193 , $SD_{\text{cons}*\text{white}} = \117 , $M_{\text{libs}*\text{minor}} = \186 , $SD_{\text{libs}*\text{minor}} = \124 , $M_{\text{libs}*\text{white}} = \177 , $SD_{\text{libs}*\text{white}} = \117 ; $F_{(1, 2480)} = 3.41$, $p = .065$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-4B). We found no evidence for significant main effects of political ideology ($M_{\text{cons}} = \$189$, $SD_{\text{cons}} = \$117$, $M_{\text{libs}} = \$182$, $SD_{\text{libs}} = \$120$; $F_{(1, 2480)} = 2.04$, $p = .154$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) or of model race ($M_{\text{minor}} = \$185$, $SD_{\text{minor}} = \$121$, $M_{\text{white}} = \$185$, $SD_{\text{white}} = \$117$; $F_{(1, 2480)} = 0.01$, $p = .916$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]).

Please refer to the Appendix B subsection “Study 4 Supplementary Details” for the results of an exploratory two-way ANOVA testing for an interaction effect of *stereotype portrayal* and *model race* on economic perceptions.

Exploratory Three-Way Factorial ANOVAs. Finally, we investigated whether a three-way interaction of all three factors exists and influences economic perceptions. In an exploratory three-way factorial ANOVA, we found no evidence for a significant interaction effect of *political ideology*, *stereotype portrayal*, and *model race* on economic perceptions ($M_{\text{cons}*\text{cong}*\text{minor}}$

= \$186, $SD_{\text{cons}*\text{cong}*\text{minor}} = \117 , $M_{\text{cons}*\text{cong}*\text{white}} = \194 , $SD_{\text{cons}*\text{cong}*\text{white}} = \118 , $M_{\text{cons}*\text{incong}*\text{minor}} = \183 , $SD_{\text{cons}*\text{incong}*\text{minor}} = \129 , $M_{\text{cons}*\text{incong}*\text{white}} = \192 , $SD_{\text{cons}*\text{incong}*\text{white}} = \116 , $M_{\text{libs}*\text{cong}*\text{minor}} = \181 , $SD_{\text{libs}*\text{cong}*\text{minor}} = \123 , $M_{\text{libs}*\text{cong}*\text{white}} = \171 , $SD_{\text{libs}*\text{cong}*\text{white}} = \112 , $M_{\text{libs}*\text{incong}*\text{minor}} = \191 , $SD_{\text{libs}*\text{incong}*\text{minor}} = \125 , $M_{\text{libs}*\text{incong}*\text{white}} = \184 , $SD_{\text{libs}*\text{incong}*\text{white}} = \121 ; $F_{(1, 2476)} = 0.02$, $p = .888$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-5B).

Downstream Hiring. For our last outcome measure, we conducted confirmatory and exploratory factorial ANOVAs to test for interaction effects on downstream hiring.

Confirmatory Two-Way Factorial ANOVAs. We first tested for two-way interaction effects on downstream hiring. Investigating our behavioral measure, we conducted a confirmatory two-way factorial ANOVA investigating the effect of *political ideology* and *stereotype portrayal* on downstream hiring. We found no evidence for a significant interaction effect ($M_{\text{cons}*\text{cong}} = 0.75$, $SD_{\text{cons}*\text{cong}} = 0.43$, $M_{\text{cons}*\text{incong}} = 0.68$, $SD_{\text{cons}*\text{incong}} = 0.47$, $M_{\text{libs}*\text{cong}} = 0.34$, $SD_{\text{libs}*\text{cong}} = 0.47$, $M_{\text{libs}*\text{incong}} = 0.31$, $SD_{\text{libs}*\text{incong}} = 0.46$; $F_{(1, 2480)} = 1.49$, $p = .222$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-3D). We did find significant main effects of political ideology ($M_{\text{cons}} = 0.72$, $SD_{\text{cons}} = 0.45$, $M_{\text{libs}} = 0.33$, $SD_{\text{libs}} = 0.47$; $F_{(1, 2480)} = 446.03$, $p < .001$, $\eta^2_p = .15$, 95% CI = [0.13, 1.00]) and of stereotype portrayal ($M_{\text{cong}} = 0.53$, $SD_{\text{cong}} = 0.50$, $M_{\text{incong}} = 0.49$, $SD_{\text{incong}} = 0.50$; $F_{(1, 2480)} = 5.90$, $p = .015$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]). Overall, conservatives were significantly more likely to hire the stereotype congruent software candidate (i.e., the Asian Male candidate as opposed to the Black Female candidate) than liberals, and participants in the congruent condition were more likely than participants in the incongruent condition to hire the congruent candidate.

Next, in a confirmatory two-way factorial ANOVA investigating the effect of *political ideology* and *model race* on downstream hiring, we found no evidence for a significant

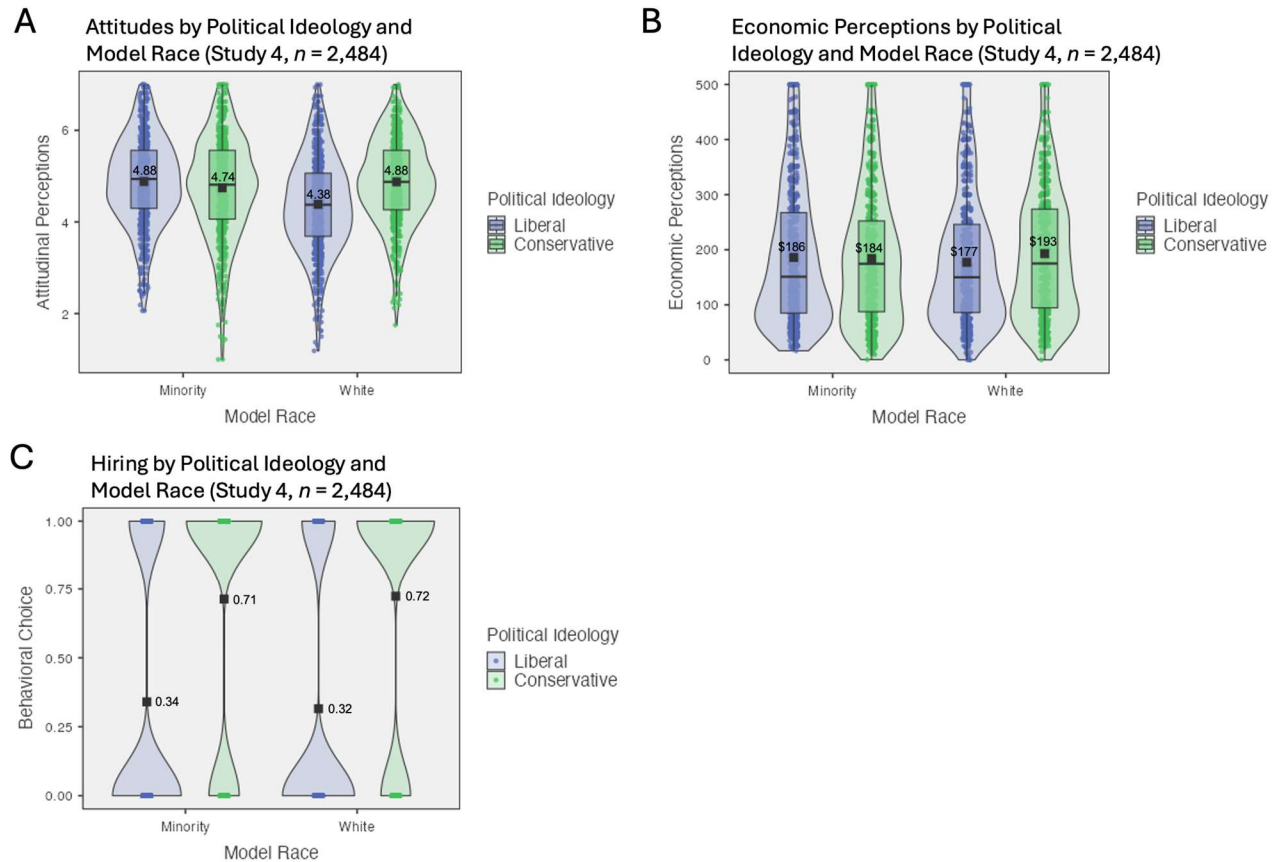
interaction effect ($M_{\text{cons}*\text{minor}} = 0.71$, $SD_{\text{cons}*\text{minor}} = 0.45$, $M_{\text{cons}*\text{white}} = 0.72$, $SD_{\text{cons}*\text{white}} = 0.45$, $M_{\text{libs}*\text{minor}} = 0.34$, $SD_{\text{libs}*\text{minor}} = 0.47$, $M_{\text{libs}*\text{white}} = 0.32$, $SD_{\text{libs}*\text{white}} = 0.46$; $F_{(1, 2480)} = 0.89$, $p = .345$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-4C). We did find a significant main effect of political ideology on hiring ($M_{\text{cons}} = 0.72$, $SD_{\text{cons}} = 0.45$, $M_{\text{libs}} = 0.33$, $SD_{\text{libs}} = 0.47$; $F_{(1, 2480)} = 444.06$, $p < .001$, $\eta^2_p = .15$, 95% CI = [0.13, 1.00]), but no evidence for a significant effect of model race on hiring ($M_{\text{minor}} = 0.51$, $SD_{\text{minor}} = 0.50$, $M_{\text{white}} = 0.51$, $SD_{\text{white}} = 0.50$; $F_{(1, 2480)} = 0.04$, $p = .837$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]). Again, conservatives were significantly more likely to hire the stereotype congruent software candidate than liberals, but model race had no standalone effect on downstream hiring.

Please see the Appendix B subsection “Study 4 Supplementary Details” for the results of an exploratory two-way ANOVA testing for an interaction effect of *stereotype portrayal* and *model race* on downstream hiring.

Exploratory Three-Way Factorial ANOVAs. Finally, we examined whether a three-way factorial interaction effect existed to affect downstream hiring. In an exploratory three-way factorial ANOVA, we found no evidence for a significant interaction effect of *political ideology*, *stereotype portrayal*, and *model race* on downstream hiring ($M_{\text{cons}*\text{cong}*\text{minor}} = 0.77$, $SD_{\text{cons}*\text{cong}*\text{minor}} = 0.42$, $M_{\text{cons}*\text{cong}*\text{white}} = 0.74$, $SD_{\text{cons}*\text{cong}*\text{white}} = 0.44$, $M_{\text{cons}*\text{incong}*\text{minor}} = 0.66$, $SD_{\text{cons}*\text{incong}*\text{minor}} = 0.47$, $M_{\text{cons}*\text{incong}*\text{white}} = 0.70$, $SD_{\text{cons}*\text{incong}*\text{white}} = 0.46$, $M_{\text{libs}*\text{cong}*\text{minor}} = 0.37$, $SD_{\text{libs}*\text{cong}*\text{minor}} = 0.48$, $M_{\text{libs}*\text{cong}*\text{white}} = 0.31$, $SD_{\text{libs}*\text{cong}*\text{white}} = 0.46$, $M_{\text{libs}*\text{incong}*\text{minor}} = 0.31$, $SD_{\text{libs}*\text{incong}*\text{minor}} = 0.46$, $M_{\text{libs}*\text{incong}*\text{white}} = 0.32$, $SD_{\text{libs}*\text{incong}*\text{white}} = 0.47$; $F_{(1, 2476)} = 0.00$, $p = .979$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]) (see Figure 2-5C).

Figure 2-4

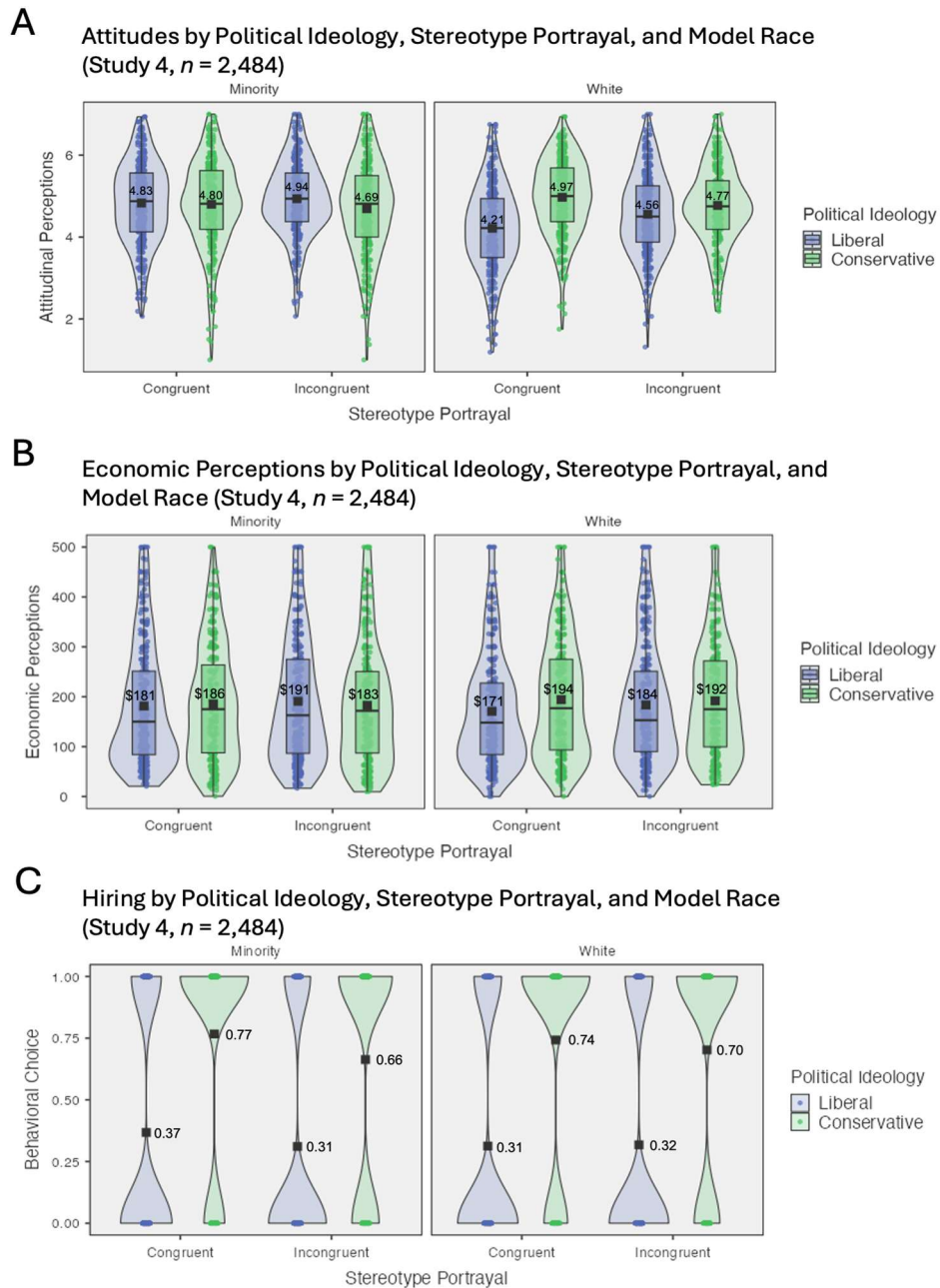
Violin Plots for Outcome Measures by Stereotype Portrayal and Model Race, Study 4 (Panels A-C)



Note. Violin plot for attitudes is contained in Figure 2-4A; economic perceptions is contained in Figure 2-4B; downstream hiring is contained in Figure 2-4C. For Panel C, Y-axis Behavioral Choice: 0 = Stereotype Incongruent Candidate Hired, 1 = Stereotype Congruent Candidate Hired.

Figure 2-5

Violin Plots for Outcome Measures by Three-Way Interaction (Political Ideology, Stereotype Portrayal, and Model Race), Study 4 (Panels A-C)



Note. Violin plot for attitudes is contained in Figure 2-5A; economic perceptions is contained in Figure 2-5B; downstream hiring is contained in Figure 2-5C. For Panel C, Y-axis Behavioral Choice: 0 = Stereotype Incongruent Candidate Hired, 1 = Stereotype Congruent Candidate Hired.

Discussion

The polarization between politically liberal and conservative individuals on issues related to equity, diversity and inclusion has reached a recent peak in the United States (Bowman, 2025; Pew Research Center, 2020). This ideological split has important consequences for the way race and gender identities are perceived and for how stereotypes are perpetuated. In this work, we examined how political ideology affects the way U.S. citizens evaluate portrayals of race and gender identities that are either in line and congruent with traditional stereotypes or divergent and incongruent with traditional stereotypes.

Across four studies ($N = 5,125$), we found evidence of an interaction effect wherein evaluations of advertisements depend on the viewer's political ideology, the stereotype congruency (or lack thereof) depicted in the ad, and the model race(s) featured in the ad. In particular, along our attitudinal perceptions outcome, we find consistent results and provide a fuller understanding of how individuals with different political beliefs respond to stereotype portrayals and to varying racial representation. As for our economic and behavioral outcomes, we find initial but insubstantial evidence for interaction effects, and consistent main effects of political ideology.

Importantly, our results show not just a consistency in attitudinal responses from liberals who exhibit stronger preference for incongruent portrayals than their conservative counterparts and, amongst themselves, significantly prefer incongruent over congruent portrayals (Studies 1-4), but also a malleability in responses from both liberals and conservatives: liberals typically prefer incongruent portrayals and are willing to withhold favorable attitudes from congruent portrayals, while conservatives typically prefer congruent portrayals, but express higher attitudes towards incongruent portrayals than liberals under certain conditions (Studies 3 & 4). Further,

we found that the pattern from Studies 1 & 2 wherein liberals preferred all advertisements more than conservatives was flipped in our results for Study 3, such that conservatives preferred all advertisements more than liberals when only white models and a manipulation of gender stereotypes were portrayed. Indeed, liberals consistently prefer all portrayals more than conservatives when the models are racial minorities (Studies 1, 2, and 4), whereas conservatives prefer all portrayals more than liberals when the models are white (Studies 3 & 4). Notably, we also found that incongruent portrayals were rated significantly higher than congruent portrayals by the entire sample (Study 3), underscoring not only how liberals consistently prefer incongruent portrayals overall (Studies 1, 3, and 4), but also how conservatives' attitudes can flip towards preferring incongruent portrayals more than liberals when only white models are presented (Studies 3 & 4); these two forces collectively contribute to a significant main effect of stereotype portrayal on attitudes.

Our findings along attitudes that liberals and conservatives are sensitive to the ways stereotype incongruency is portrayed and that their reactions are malleable under different conditions is worth noting and following up on. Both groups of participants' attitudes change when portrayals feature models that they may inherently underscore or which contradict their different worldviews: conservatives are more reluctant to favor incongruent portrayals but show an openness towards endorsing incongruency when white models are featured, while liberals endorse portrayals of minority races and of incongruency but withhold this endorsement for solely white models. Future work will explore and test additional paradigm tests featuring socially dominant models, higher status models, or other depictions of political worldviews in various contexts. While our attitudinal findings are robust and consistently manipulated, our economic perceptions and downstream behavioral outcomes fail to provide substantial evidence

of interaction effects, though they do reveal interesting and reliable main effects of political ideology.

We found an initial significant interaction effect of political ideology and stereotype portrayal on monetary evaluation in Study 1, such that liberals (compared to conservatives) expect to spend more on incongruently depicted professional services, which lines up with our attitudinal finding that liberals prefer incongruent portrayals significantly more than conservatives do (Studies 1 & 2). However, this interaction effect did not replicate in studies beyond Study 1. We did find a significant main effect of political ideology on economic perceptions across Studies 1-3, such that liberals spend significantly more on all professional services than conservatives when the services are modeled by racial minorities (Studies 1 & 2); interestingly, this main effect reverses and reveals that conservatives spend significantly more than liberals when the services are modeled by white individuals (Study 3). We found no notable interaction effects on economic perceptions in our three-way factorial experiment in Study 4.

We also found an initial significant interaction effect of political ideology and stereotype portrayal on downstream behaviors in Study 2. These results reveal that stereotype portrayal seems to act as an enhancer of pre-existing political ideology on downstream hiring selections: conservatives who viewed incongruent stereotype portrayals were more likely to hire the stereotype congruent job candidate than those who viewed congruent portrayals, while liberals who viewed incongruent portrayals were even less likely to choose the congruent candidate than when they viewed congruent portrayals. The same incongruent portrayals led to more amplified and divergent responses from conservatives and liberals, who reacted to those incongruent portrayals in ways that penalize such portrayals (i.e., conservatives) or endorse such portrayals (i.e., liberals). While the interaction effect did not replicate in other studies, we provide

consistent evidence that behavioral choices are directly influenced by political ideology wherein conservatives were more likely than liberals to hire the congruent job candidate (Studies 1-4).

Taken together, our findings build upon and advance the intersection of social and political psychology by directly testing stereotype incongruent portrayals of varied race and gender identities, through which we reveal politically divergent responses. Unlike previous work, which either focused on traditional stereotypes among political ideologies or on counterstereotypes without regard to political ideology, our work centers on both stereotype congruence and political ideology.

We establish a clear divergence across political ideologies in attitudinal perceptions to explicit stereotypes, thus providing competing evidence to previous work which suggested that liberal and conservatives held the same implicit preferences but that one group's preferences may simply be weaker than the other's (Nosek et al., 2007). Perhaps explicit reports in response to explicit stereotypes effectively extracts the divergence across political ideology. Certainly, our participants were willing to directly express their like or dislike of the representations and portrayals they viewed, showing that affective responses, while not directed at immediate political opponents, continue to be openly expressed at target advertisements that seem to represent opposing political views; this expands prior work (Iyengar & Westwood, 2015; Iyengar et al., 2019) and posits that extreme affective polarization can be transferred to objects or inanimate objects that merely represent opposing political views. Future work might consider testing both implicit and explicit preferences to stimuli that range from the obvious to the implicit.

Moreover, we test our interactive dynamic not just on attitudes, but also across economic attributions and downstream behaviors, finding initial evidence of interaction effects and

underscoring the consistency of political ideology as a main driver of these outcomes. Critically, we also manipulate and evaluate the effect of racial representation, or model race, on politically conservative and politically liberal participants' responses to stereotype portrayal, finding that liberals continue to favor portrayals that feature racial minorities while conservatives favor portrayals that feature only white individuals. In fact, depicting all white models is key in revealing a conservative malleability and higher attitudinal score towards incongruent portrayals: when advertisements are portrayed by only white individuals, conservatives show increased attitudes and heightened preference for stereotype incongruent (Studies 3 & 4).

Taken together, we show a significant and robust divergence between political ideologies, that the divergence in reactions is characterized by both consistency and variability among liberals and conservatives. The variability among conservatives' evaluations contends with prior work that both conservatives and liberals are equally intolerant and staunch in their views (Brandt et al., 2014; Crawford & Pilanski, 2014). Indeed, our work provides support towards the argument that conservatives effectively and considerably respond to certain stimuli. Just as how prior work has shown that conservatives typically penalize counterstereotypical people but will only do so when the counterstereotypicality is functional or provides utility (Stern et al., 2015), our work shows that conservatives respond favorably to portrayals of white models, perhaps because there is a functionality or usefulness for them in those representations. Importantly, our work advances past research on political ideology, stereotype congruency, and racial representation by providing a thorough investigation into the effect of these three factors on attitudes across a variety of target advertisements.

Limitations

We note several limitations in this work. Primarily, our studies use convenience samples of online participants. While there are various benefits to this approach, including the ability to pre-screen for U.S. citizenship (thus targeting participants who were familiar with stereotypes in the United States, who had the potential to be politically active, and who represent American political ideologies), the ability to obtain a large and balanced sample of conservatives and liberals, and the speed with which data can be collected, there is a need to conduct an experiment either in the field or with a field sample, albeit challenges in resource and access to recruit a large field sample may exist. We expect a field study would replicate the results we found in our four studies and would extend the generalizability of our findings, as our findings were consistent across time and participant samples.

Of note, future work may consider exploring how the demographic make-up beyond political ideology of the participants may moderate results. For instance, recruiting only non-dominant identities (i.e., only racial minorities liberal and conservative participants or only female liberal and conservative participants) and assessing their reactions to congruent versus incongruent portrayals of their own non-dominant group may reveal findings important to understanding further intersections of identity and representation. Further, future studies may consider dissecting and breaking down stereotype incongruence into two subcategories, strict counterstereotypes (i.e., depictions of individuals that directly counter commonly-held stereotypes) versus non-stereotypes (i.e., depictions of individuals that are neither blatantly stereotypical nor counterstereotypical; depictions that are unaffiliated with stereotypes), and investigating how conservative and liberal viewers respond to such depictions.

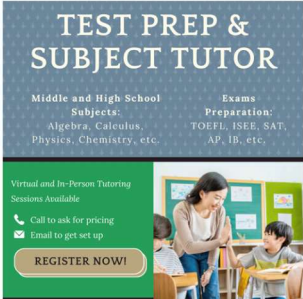
Our findings highlight the consequences of stereotype content and political belief on evaluations of race and gender in popular media and workplace contexts. Our work advances the

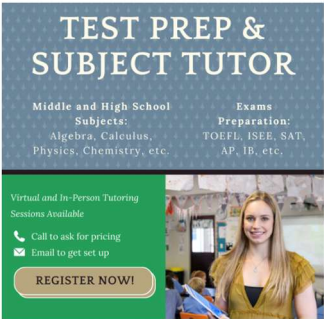
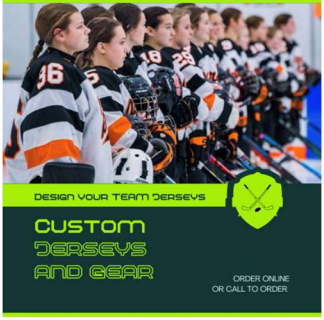
study of political ideology, stereotypes, and social perceptions and brings into sharp focus the reactions to stereotype congruent versus stereotype incongruent portrayals of race and gender. This work provides a clear starting point on the differences between conservative and liberal responses to portrayals of varying race and gender identities. We hope these findings will inspire future inquiry on how and why differences in ideology influence the way racial minorities, white individual, men and women are perceived. Given the intense polarization of the U.S.'s political landscape, especially with respect to diversity issues, it is imperative for researchers and organizations to continue investigating and understanding the interaction between political ideology, stereotype portrayal, and racial representation.

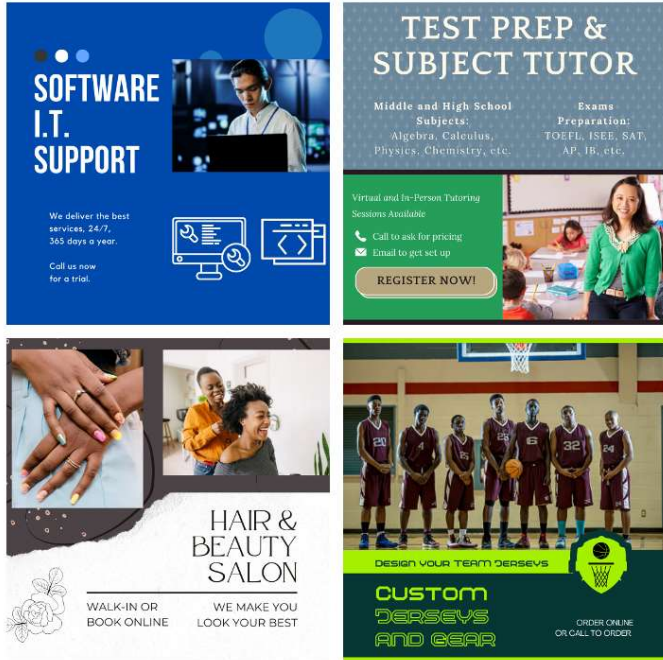
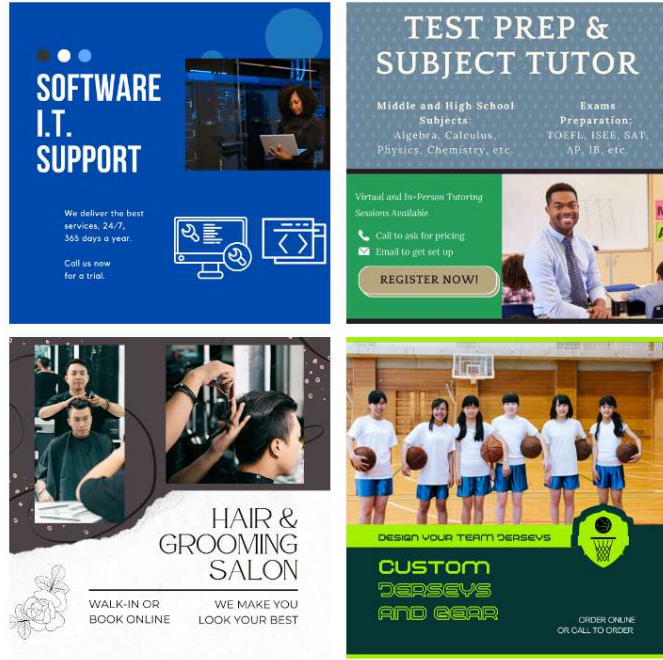
Appendix B:

In the below appendix for Chapter 2, I provide information on our experimental stimuli, followed by details on the methods and results for our Pilot Study and Preliminary Study, dependent variable scale items, and study sample sizes. Further supplementary results containing exploratory and secondary analyses can be found online at <https://www.nature.com/articles/s44271-025-00287-6>.

Table B1. Experimental Stimuli Manipulating Stereotype Portrayal (Stereotype Congruent vs. Stereotype Incongruent), by Study.

Study	Experimental Stimuli (Custom Advertisements)	
	Stereotype Portrayal: Congruent Condition	Stereotype Portrayal: Incongruent Condition
Pilot Study, Preliminary Study, and Studies 1 & 2: Minority Models	 	 
	 	 

Study	Experimental Stimuli (Custom Advertisements)	
	Stereotype Portrayal: Congruent Condition	Stereotype Portrayal: Incongruent Condition
Study 3: White Models	   	   

Study	Experimental Stimuli (Custom Advertisements)	
	Stereotype Portrayal: Congruent Condition	Stereotype Portrayal: Incongruent Condition
Study 4 <i>(Stimuli for Minority Model Race Condition)</i>		

Study	Experimental Stimuli (Custom Advertisements)	
	Stereotype Portrayal: Congruent Condition	Stereotype Portrayal: Incongruent Condition
Study 4 <i>(Stimuli for White Model Race Condition)</i>		

Note. The experimental stimuli were created by the study team and pre-tested for realism and stereotype alignment.

Pilot Study: Testing Advertisement Stimuli

We ran a pilot study to test the advertisement stimuli. Please see Appendix Table B2 for Pilot Study's participant demographics.

Table B2. Pilot Study: Participant Race and Gender.

Participant Gender	Participant Race	#	% of Sample
Male	White	87	39.5%
	Black	11	5.0%
	Asian	6	2.7%
	Hispanic	10	4.5%
	Native Hawaiian or Pacific Islander	1	0.5%
	Other	2	0.9%
Female	White	86	39.1%
	Black	7	3.2%
	Asian	1	0.5%
	Hispanic	2	0.9%
	American Indian or Alaska Native	2	0.9%
	Other	3	1.4%
Other	White	1	0.5%
	Other	1	0.5%

The preregistered pilot study ($n = 220$) measured perceived **realism** of our custom ads (please see Appendix Table B4) using an index consisting of 5 items (e.g., “I have seen advertisements just like these in the real world” and “The ads I saw look like fake ads (R).”) ($\alpha = .82$). Out of a Likert 1-7 scale wherein 1=strongly disagree, 4=neutral/neither, 7=strongly agree, we found that the *stereotype congruent condition* participants perceived the ads to be very realistic ($M = 5.87$, $SD = 1.01$), while the *stereotype incongruent condition* perceived the ads to be relatively less realistic ($M = 5.51$, $SD = 1.03$), although both are still significantly above the neutral point of 4 (congruent ads: $t(114) = 19.82$, 95% CI [5.68, 6.06], $p < .001$; incongruent ads: $t(104) = 15.06$, 95% CI [5.31, 5.71], $p < .001$).

Further, we measured **stereotype alignment** of the ads using an index of 5 items (e.g., “These advertisements illustrate general stereotypes that are commonly held by society” and “The way the models are depicted in the ads does not align with common stereotypes (R).”) ($\alpha = .86$). Out of a Likert 1-7 scale wherein 1=strongly disagree, 4=neutral/neither, 7=strongly agree, we found that the *stereotype congruent condition* participants perceived the ads to be congruent with commonly held stereotypes ($M = 5.07, SD = 1.15$), while the *stereotype incongruent participants* perceived the ads to be incongruent ($M = 2.81, SD = 1.19$). Additionally, each of these means were significantly different from the neutral point of 4 in their relative directions (congruent ads: $t(114) = 9.90, 95\% \text{ CI } [4.85, 5.28], p < .001$; incongruent ads: $t(104) = -10.28, 95\% \text{ CI } [2.58, 3.04], p < .001$).

Preliminary Study: Testing Attitudes

We conducted a preliminary experiment (“Preliminary Study”) with U.S. citizens who were randomly assigned to stereotype congruent vs. incongruent conditions that depicted racial minorities and manipulated race and gender stereotypes in workplace advertisements. Please see Table B3 below for participant race and gender breakdowns for the Preliminary Study of testing attitudes.

Table B3. Preliminary Study: Participant Race and Gender.

Participant Gender	Participant Race	#	% of Sample
Male	White	52	26.5%
	Black	13	6.6%
	Asian	5	2.6%
	Hispanic	8	4.1%
	Native Hawaiian or Pacific Islander	1	0.5%
	Other	1	0.5%
Female	White	98	50.0%
	Black	8	4.1%
	Asian	3	1.5%
	Hispanic	5	2.6%

	Other	1	0.5%
Other	American Indian or Alaska Native	1	0.5%

We asked participants to rate their liking, comfort with, and persuasiveness of the advertisement, which we collapsed into an index measure of **attitudinal perceptions** (see Appendix B subsection “Index Measures” for more details on individual items and index outcomes).

Following our pre-registration, we first conducted a one-way ANOVA to test for a main effect of stereotype portrayal on attitudes and found no significant effect ($M_{\text{cong}} = 5.24$, $SD_{\text{cong}} = 1.02$, $M_{\text{incong}} = 5.24$, $SD_{\text{incong}} = 0.96$; $F_{(1, 194)} < 0.01$, $p = .952$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]). We find no support for our prediction that participants will prefer stereotype congruent portrayals more than stereotype incongruent portrayals.

Next, we ran a factorial ANOVA testing for an interaction effect of stereotype portrayal and political ideology on attitudes. Our results show a significant interaction effect ($M_{\text{cons*cong}} = 5.56$, $SD_{\text{cons*cong}} = 1.15$, $M_{\text{cons*incong}} = 5.03$, $SD_{\text{cons*incong}} = 1.42$, $M_{\text{libs*cong}} = 5.12$, $SD_{\text{libs*cong}} = 0.94$, $M_{\text{libs*incong}} = 5.34$, $SD_{\text{libs*incong}} = 0.59$; $F_{(1, 192)} = 6.32$, $p = .013$, $\eta^2_p = .03$, 95% CI = [0.00, 1.00]). These results were robust in exploratory linear regressions with and without holding constant participants’ age, race, gender, income, and educational attainment ($b = 0.75$, $SE = 0.30$, $p = .013$, $\eta^2_p = .03$, 95% CI = [0.00, 1.00]; $b = 0.76$, $SE = 0.30$, $p = .013$, $\eta^2_p = .03$, 95% CI = [0.00, 1.00]). Conducting an exploratory post-hoc Tukey’s Honest Significant Differences (Tukey HSD) multiple pair-wise difference test, we found no significant pairwise differences, suggesting that our sample size is limited or the interaction effect is small despite being significant at $p < .05$. We address sample size limitations in our main studies, Studies 1-4. This

interaction effect provides support for our prediction that political ideology will moderate attitudinal ratings of the stereotype congruent and incongruent ads.

Finally, we conducted a one-way ANOVA to test for a main effect of stereotype portrayal on time spent viewing the target advertisements, having predicted that stereotype incongruent ads will be more surprising (i.e., will be viewed for longer) than stereotype congruent ads. We found no differences in time spent (in seconds) viewing target advertisements between stereotype portrayal conditions ($M_{\text{cong}} = 693$, $SD_{\text{cong}} = 256$, $M_{\text{incong}} = 650$, $SD_{\text{incong}} = 280$; $F_{(1, 194)} = 1.25$, $p = .264$, $\eta^2_p < .01$, 95% CI = [0.00, 1.00]), thus failing to provide support for this prediction.

Index Measures

Political Ideology

We specified our liberal and conservative political ideology categories using a sociopolitical index score, which was the composite of four items: political leaning (“In general, how liberal (left-wing) or conservative (right-wing) are you?”), political party (“Which of the following do you most closely identify as?”), fiscal ideology (“When it comes to economic/fiscal issues and policies, which of the following do you most closely identify as?”), and social ideology (“When it comes to social issues and policies, which of the following do you most closely identify as?”) ($\alpha \geq .98$, Studies 1-4) (Likert 1-7: 1 = Very liberal/Strongly Democrat, 4 = Moderate/Middle-of-the-road/Independent, 7 = Very conservative/Strongly Republican). We sought participants with strong and consistent sociopolitical ideology orientations and self-identifications—as such, we categorized respondents who had a sociopolitical index score between 1 = “very liberal” and 2 = “liberal” as liberal, while those who had an index score between 6 = “conservative” and 7 = “very conservative” were categorized as conservative; respondents who did not meet these political ideology categorizations (i.e., politically moderate

or independent participants) were not included in analyses. Further, our preregistered hypotheses and analyses focus on the difference between liberals and conservatives, and thus we exclude from analysis any politically moderate or independent participants.

Attitudinal Preferences

Preferences are captured in an attitudes index, which consisted of liking (e.g., “In general/overall, how much did you like the ads you saw?” and “I really did not like the images of the ads” (reverse-coded)), comfort (e.g., “How comfortable or uncomfortable were you with the ads?” and “The ads made me feel uneasy” (reverse-coded)), and persuasiveness (e.g., “How would you describe your desire to own or receive the products/services featured in the ads?” and “I want to experience or purchase these products/services”) items (Likert 1-7; 5 items, $\alpha = .81$, Preliminary Study; 16 items, $\alpha \geq .92$, Studies 1-4). A list of all items used in Studies 1-4 is listed in Table B4 below:

Table B4. Attitudinal Preferences Items.

Construct	Item Text
Liking	To what extent do you like the <i>products</i> featured in the advertisement?
	To what extent do you like the <i>models</i> featured in the advertisement?
	<i>In general/overall</i> , how much did you like the ads you saw?
	I really did not like the images of the ads (reverse-coded).
	There was something about the ads that I just didn’t like (reverse-coded).
	I thought the ads were great and I really liked them.
Comfort	How would you describe your comfort with the ads? In other words, how comfortable or uncomfortable were you with the ads?
	Looking at the ads, I felt perfectly at ease and comfortable.
	I noticed I felt rather tense and uncomfortable when looking at the ads (reverse-coded).
	I enjoyed viewing the ads.
	The ads made me feel uneasy (reverse-coded)
Persuasiveness	How would you describe your <i>desire to own or receive the products/services</i> featured in the ads?

	I want to experience or purchase these products/services.
	I did not really take a fancy to any of these products and services (reverse-coded).
	The ads showed products and services I actually want and would like to have in my everyday life.
	Looking at the ads, I did not really want to own any of them (reverse-coded).

Note. All items were measured on a Likert scale 1-7 with scale labels based on question (1 = Very much dislike/uncomfortable/no desire at all, 7 = Very much like/comfortable/desire; 1 = Strongly disagree, 4 = Neutral, 7 = Strongly agree).

Economic Perceptions

Economic perceptions of monetary value are captured in an index, which consisted of a willingness to pay item (“Thinking about yourself... In total, how much would you be willing to pay for all of these products/services (in U.S. dollars \$)?” (Sliding bar from \$0 to \$500)”) and a worth to others item (“In total, how much do you think all of these products/services are worth to the average American (in terms of U.S. dollars \$)?” (Sliding bar from \$0 to \$500)”) ($\alpha \geq .78$, measured in Studies 1-4).

Study 1 Supplementary Details

We provide descriptive information about participants’ race and gender in Table B5.

Participant Information

Table B5. Study 1: Participant Race and Gender.

Participant Gender	Participant Race	#	% of Sample
Men	White	263	27.5
	Black	28	2.9
	Asian	17	1.8
	Hispanic	23	2.4
	Other	6	0.6
	Missing	1	0.1
Women	White	512	53.4
	Black	50	5.2
	Asian	13	1.4
	Hispanic	22	2.3
	Native Hawaiian or Pacific Islander	2	0.2

	Other	10	1
Other	White	9	0.9
	Hispanic	2	0.2

Study 2 Supplementary Details

We provide descriptive information about participants' race and gender in Table B6.

Participant Information

Table B6. Study 2: Participant Race and Gender.

Participant Gender	Participant Race	#	% of Sample
Men	White	295	32.8%
	Black	44	4.9%
	Asian	25	2.8%
	Hispanic	33	3.7%
	American Indian or Alaska Native	1	0.1%
	Native Hawaiian or Pacific Islander	1	0.1%
	Other	7	0.8%
Women	White	402	44.7%
	Black	33	3.7%
	Asian	12	1.3%
	Hispanic	24	2.7%
	American Indian or Alaska Native	2	0.2%
	Other	8	0.9%
Other	White	7	0.8%
	Black	1	0.1%
	Asian	1	0.1%
	Hispanic	1	0.1%
	Other	3	0.3%

Study 3 Supplementary Details

We provide descriptive information about participants' race and gender in Table B7.

Participant Information

Table B7. Study 3: Participant Race and Gender.

Participant Gender	Participant Race	#	% of Sample
Men	White	284	36.3%
	Black	22	2.8%
	Asian	22	2.8%

	Hispanic	31	4.0%
	American Indian or Alaska Native	1	0.1%
	Other	3	0.4%
Women	White	329	42.0%
	Black	35	4.5%
	Asian	21	2.7%
	Hispanic	18	2.3%
	American Indian or Alaska Native	2	0.3%
	Native Hawaiian or Pacific Islander	1	0.1%
	Other	6	0.8%
Other	White	4	0.5%
	Asian	1	0.1%
	Hispanic	2	0.3%
	Other	1	0.1%

Study 4 Supplementary Details

We provide descriptive information about participants' race and gender in Table B8. Details regarding pilot testing Study 4's advertisement stimuli featuring only white models is further below.

Participant Information

Table B8. Study 4: Participant Race and Gender.

Participant Gender	Participant Race	#	% of Sample
Men	White	758	30.5%
	Black	90	3.6%
	Asian	74	3.0%
	Hispanic	75	3.0%
	American Indian or Alaska Native	1	0.0%
	Native Hawaiian or Pacific Islander	3	0.1%
	Other	13	0.5%
Women	White	1143	46.0%
	Black	114	4.6%
	Asian	75	3.0%
	Hispanic	84	3.4%
	American Indian or Alaska Native	3	0.1%
	Native Hawaiian or Pacific Islander	1	0.0%
	Other	21	0.8%

Other	White	15	0.6%
	Black	3	0.1%
	Asian	1	0.0%
	Hispanic	4	0.2%
	Other	6	0.2%

Pilot Testing Advertisement Stimuli for Study 4

A second pilot study ($n = 141$) was conducted to test the experimental stimuli we plan to use in Study 4. This new set of experimental stimuli were selected to enhance similarity in model facial expression, body language, and environment across conditions (see Table B1 for experimental stimuli).

As in our previous pilot study, we measured perceived **realism** of our custom ads using an index consisting of 5 items (e.g., “I have seen advertisements just like these in the real world” and “The ads I saw look like fake ads (R).”) ($\alpha = .85$) (Likert 1-7 scale wherein 1=strongly disagree, 4=neutral/neither, 7=strongly agree). As we expected, all ads, regardless of stereotype portrayal and model race, were seen to be highly realistic ($M = 5.41$, $SD = 1.21$) and to have a realism rating greater than the mid-point of the scale ($t(140) = 13.84$, 95% CI [5.21, 5.61], $p < .001$). Looking next at stereotype portrayal, we also found that the *stereotype congruent condition* participants perceived the ads to be very realistic ($M = 5.65$, $SD = 1.12$), while the *stereotype incongruent condition* perceived the ads to be relatively less realistic ($M = 5.22$, $SD = 1.26$), although both are still significantly above the neutral point of 4 (congruent ads: $t(63) = 11.79$, 95% CI [5.37, 5.93], $p < .001$; incongruent ads: $t(76) = 8.48$, 95% CI [4.93, 5.50], $p < .001$).

Then, looking between the conditions varying model race featured in the advertisements, we found that the *minority model condition* participants perceived the ads to be very realistic ($M = 5.45$, $SD = 1.19$), while the *white model condition* participants perceived the ads to be

relatively less realistic ($M = 5.38$, $SD = 1.24$), although both are still significantly above the neutral point of 4 (minority models: $t(68) = 10.14$, 95% CI [5.16, 5.73], $p < .001$; white models: $t(71) = 9.40$, 95% CI [5.08, 5.67], $p < .001$). Finally, looking at the interaction between stereotype portrayal and model race on realism ratings, we found no significant interaction effect ($F(1, 137) = 1.85$, $p = .176$). Overall, our pilot study results suggest that participants did not detect any differences in realism of the advertisements across conditions and that they rated all ads as highly realistic.

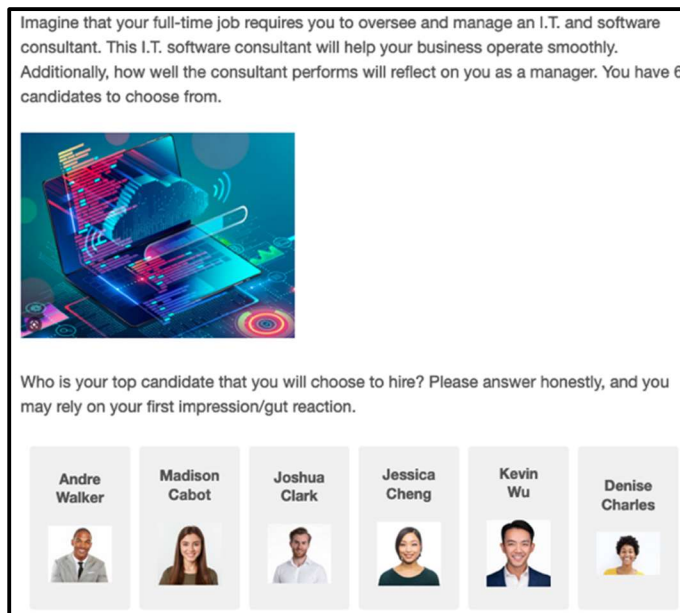
Further, we measured **stereotype alignment** of the ads using an index of 5 items (e.g., “These advertisements illustrate general stereotypes that are commonly held by society” and “The way the models are depicted in the ads does not align with common stereotypes (R).”) ($\alpha = .92$) (Likert 1-7 scale wherein 1=strongly disagree, 4=neutral/neither, 7=strongly agree). As we had expected, we found that the *stereotype congruent condition* participants perceived the ads to be congruent with commonly held stereotypes ($M = 5.21$, $SD = 1.27$), while the *stereotype incongruent participants* perceived the ads to be incongruent ($M = 2.98$, $SD = 1.35$). Additionally, each of these means were significantly different from the neutral point of 4 in their relative directions (congruent ads: $t(63) = 7.62$, 95% CI [4.89, 5.53], $p < .001$; incongruent ads: $t(76) = -6.59$, 95% CI [2.68, 3.29], $p < .001$). Overall, the experimental stimuli tested in this pilot study have stereotype alignment ratings that match the stereotype portrayal condition manipulation.

Vignette Hiring Stimuli (Studies 1-3)

To measure downstream behavioral choices, we included a vignette-style question. The scenario asked participants to hire one I.T./software candidate out of six demographically unique options (see Figure B1). We used dummy coding for these measures. Participants who selected

the Asian male candidate for software were coded as making a congruent selection, and participants who selected any other software candidate were coded as making an incongruent selection (0=incongruent candidate selected, 1=congruent candidate selected). The vignette candidates' names and headshots were pre-tested for equivalent competence ratings and accurate race and gender portrayals. In the pre-test, we conducted a pilot test on perceptions of the vignette candidates using a random assignment between-conditions design ($n = 138$). We found no differences in competence ratings ("How would you rate [Name]/s competence?"; Likert 1 = Not at all competent, 7 = Extremely competent) between twelve different candidate profiles ($M_{AF1} = 5.50$, $M_{AF2} = 5.78$, $M_{AM1} = 5.00$, $M_{AM2} = 5.36$, $M_{BF1} = 5.55$, $M_{BF2} = 5.33$, $M_{BM1} = 5.67$, $M_{BM2} = 5.58$, $M_{WF1} = 5.55$, $M_{WF2} = 4.83$, $M_{WM1} = 5.50$, $M_{WM2} = 4.38$; $p = .32$). We selected six demographically different candidate profiles for the software vignette measure.

Figure B1. Vignette Hiring Stimuli.



Vignette Hiring Stimuli (Study 4)

To measure downstream behavioral choices, we included a vignette-style question. The scenario asked participants to hire one I.T./software candidate out of two demographically

unique options. We used dummy coding for these measures. Participants who selected the Asian male candidate for software were coded as making a congruent selection, and participants who selected the Black female software candidate were coded as making an incongruent selection (0=incongruent candidate selected, 1=congruent candidate selected). The Asian male and Black female candidates' names and headshots were maintained from a previous pre-test.

Please see Table B9 for a summary of all studies' sample size by condition.

Table B9. Study Sample Sizes by Participant Ideology and Experimental Conditions.

Study	<i>N</i> , Total Clean Study Sample (Post-Exclusions)	<i>n</i> , Sample by Participant Political Ideology (PI)	<i>n</i> , Sample by Stereotype Portrayal (SP) Conditions	<i>n</i> , Sample by PI x SP	<i>n</i> , Sample by Model Race (MR) Conditions	<i>n</i> , Sample by PI x MR	<i>n</i> , Sample by PI x SP x MR
Pilot Study	<i>N</i> = 220	N/A	<i>n</i> _{Cong} = 115 <i>n</i> _{Incong} = 105	N/A	N/A	N/A	N/A
Preliminary Study	<i>N</i> = 196	<i>n</i> _{Cons} = 61 <i>n</i> _{Libs} = 135	<i>n</i> _{Cong} = 100 <i>n</i> _{Incong} = 96	<i>n</i> _{Cons*Cong} = 29 <i>n</i> _{Cons*Incong} = 32 <i>n</i> _{Libs*Cong} = 71 <i>n</i> _{Libs*Incong} = 64	N/A	N/A	N/A
Study 1	<i>N</i> = 958	<i>n</i> _{Cons} = 423 <i>n</i> _{Libs} = 535	<i>n</i> _{Cong} = 476 <i>n</i> _{Incong} = 482	<i>n</i> _{Cons*Cong} = 204 <i>n</i> _{Cons*Incong} = 219 <i>n</i> _{Libs*Cong} = 272 <i>n</i> _{Libs*Incong} = 263	N/A	N/A	N/A
Study 2	<i>N</i> = 900	<i>n</i> _{Cons} = 351 <i>n</i> _{Libs} = 549	<i>n</i> _{Cong} = 438 <i>n</i> _{Incong} = 462	<i>n</i> _{Cons*Cong} = 171 <i>n</i> _{Cons*Incong} = 180 <i>n</i> _{Libs*Cong} = 267	N/A	N/A	N/A

				$n_{\text{Libs}*\text{Incong}} = 282$			
Study 3	$N = 783$	$n_{\text{Cons}} = 377$ $n_{\text{Libs}} = 406$	$n_{\text{Cong}} = 380$ $n_{\text{Incong}} = 403$	$n_{\text{Cons}*\text{Cong}} = 185$ $n_{\text{Cons}*\text{Incong}} = 192$ $n_{\text{Libs}*\text{Cong}} = 195$ $n_{\text{Libs}*\text{Incong}} = 211$	N/A	N/A	N/A
Study 4	$N = 2,484$	$n_{\text{Cons}} = 1,161$ $n_{\text{Libs}} = 1,323$	$n_{\text{Cong}} = 1,256$ $n_{\text{Incong}} = 1,228$	$n_{\text{Cons}*\text{Cong}} = 582$ $n_{\text{Cons}*\text{Incong}} = 579$ $n_{\text{Libs}*\text{Cong}} = 674$ $n_{\text{Libs}*\text{Incong}} = 649$	$n_{\text{Minor}} = 1,255$ $n_{\text{white}} = 1,229$	$n_{\text{Cons}*\text{Minor}} = 579$ $n_{\text{Cons}*\text{White}} = 582$ $n_{\text{Libs}*\text{Minor}} = 676$ $n_{\text{Libs}*\text{White}} = 647$	$n_{\text{Cons}*\text{Cong}*\text{Minor}} = 279$ $n_{\text{Cons}*\text{Cong}*\text{White}} = 303$ $n_{\text{Cons}*\text{Incong}*\text{Minor}} = 300$ $n_{\text{Cons}*\text{Incong}*\text{White}} = 279$ $n_{\text{Libs}*\text{Cong}*\text{Minor}} = 348$ $n_{\text{Libs}*\text{Cong}*\text{White}} = 326$ $n_{\text{Libs}*\text{Incong}*\text{Minor}} = 328$ $n_{\text{Libs}*\text{Incong}*\text{White}} = 321$

Note. For Pilot and Preliminary Studies, unlike for Studies 1-4, we did not seek a sample balanced by political ideology.

CONCLUSION

Shakespeare observed that all the world is a stage, and that every player performs their part before an audience ready to judge. Goffman extended this insight to the social and interpersonal world, arguing that impression management is a fundamental feature of human life. This dissertation has taken both observations seriously and has brought them into the contemporary workplace, where voice, identity, and social perceptions are especially salient.

Across two chapters, I have examined what happens when employees and companies step onto the figurative stage to voice stances on contentious topics. In Chapter 1, I demonstrate that who speaks up – and how they do so – matters for social perceptions. Our research shows that, when presenting information about group-based workplace disparities, the demographic identity of the messenger shapes how their motivations are perceived, with socially dominant White male messengers evaluated as less other-interested than their non-dominant counterparts. Importantly, this disadvantage is not immutable. Changing the message framing by adding explicit personal advocacy improves motivational attributions for all messengers, including a notable boost in other-interest for the discordant socially dominant messengers. This finding emphasizes the influence that both messenger identity and message content have on perceptions of advocacy speech in the workplace.

In Chapter 2, I show that what is portrayed – and to whom – affects perceptions, too. We find that depictions of race and gender in the workplace that either align with or deviate from commonly-held stereotypes are perceived differently by politically liberal and conservative audiences. The way these audiences diverge in their attitudinal, monetary, and behavioral responses to stereotype-congruent versus stereotype-incongruent business advertisements is

malleable and further depends on the models featured in the ads. Liberals consistently favor incongruent portrayals and non-White models, yet withhold this endorsement when portrayals feature only White models, while conservatives generally prefer congruent portrayals, but show a meaningful openness to incongruency when White models are featured. Our findings demonstrate that perceptions of voice and representation are not uniformly rigid, but content- and audience-dependent.

Taken together, these findings underscore a fundamental understanding about workplace voice on contentious topics: there is no universally lauded script. The speaker, the part they play, the way they deliver their lines, and the audience watching all shape how an act is perceived. For employees and companies navigating an increasingly polarized and scrutinized landscape, this emphasizes that speaking up requires careful consideration of identity, message, and delivery. The stage, after all, is always changing – and so are the parts we play.

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