

The Business Case for Diversity Backfires: Detrimental Effects of Organizations' Instrumental Diversity Rhetoric for Underrepresented Group Members' Sense of Belonging

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Many organizations offer justifications for why diversity matters, that is, organizational diversity cases. We investigated their content, prevalence, and consequences for underrepresented groups. We identified the business case, an instrumental rhetoric claiming that diversity is valuable for organizational performance, and the fairness case, a noninstrumental rhetoric justifying diversity as the right thing to do. Using an algorithmic classification, Study 1 ($N = 410$) found that the business case is far more prevalent than the fairness case among the Fortune 500. Extending theories of social identity threat, we next predicted that the business case (vs. fairness case, or control) undermines underrepresented groups' anticipated sense of belonging to, and thus interest in joining organizations—an effect driven by social identity threat. Study 2 ($N = 151$) found that LGBTQ+ professionals randomly assigned to read an organization's business (vs. fairness) case anticipated lower belonging, and in turn, less attraction to said organization. Study 3 ($N = 371$) conceptually replicated this experiment among female (but not male) Science, Technology, Engineering, and Math (STEM) job seekers. Study 4 ($N = 509$) replicated these findings among STEM women, and documented the hypothesized process of social identity threat. Study 5 ($N = 480$) found that the business (vs. fairness and control) case similarly undermines African American students' belonging. Study 6 ($N = 1,019$) replicated Study 5 using a minimal manipulation, and tested these effects' generalizability to Whites. Together, these findings suggest that despite its seeming positivity, the most prevalent organizational diversity case functions as a cue of social identity threat that paradoxically undermines belonging across LGBTQ+ individuals, STEM women, and African Americans, thus hindering organizations' diversity goals.

Keywords: business case, instrumentality, diversity, social identity threat, belonging

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Inclusion and diversity are fundamental to the success of our company, because innovation requires breakthrough ideas that only come from a diverse workforce—(AstraZeneca, 2020)

We embrace diversity because it's our culture, and because it's the right thing to do—(Tenet Health, 2019)

Many organizations today publicly voice their support for diversity, often by explaining *why* they care about diversity. We describe organizations' set of justifications for why diversity matters to them as *organizational diversity cases*. As reflected in the opening quotes, these cases can vary in the arguments they use: Some claim that

diversity is valuable because of its benefits for organizational performance (e.g., the first quotation above)—that is, they are *instrumental*. Others claim that diversity is valuable in and of itself, without explicitly connecting it to benefits for the company's bottom line (e.g., the second quotation above)—that is, they are *noninstrumental*. Organizational diversity cases communicate organizations' commitment to diversity to broad audiences both within and outside the firm (e.g., via corporate websites, career portals, recruitment materials, social media)—including women and underrepresented group members, who represent the very groups on which organizations depend to become more diverse. In this research, we ask: Do

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these justifications in favor of diversity attract underrepresented group members to the organizations that make them? Extending the theory of social identity threat, we theorize the opposite, and propose that organizations' justifications for valuing diversity may paradoxically have the potential to undermine diverse talent pools' interest in joining the organizations that make them.

By virtue of speaking about diversity, all organizational diversity cases raise the salience of group memberships. Yet, we theorize that the detrimental impact of organizational diversity cases depends on their instrumentality (or lack thereof)—defined, in the context of this research, as rhetoric that justifies diversity on the grounds of its direct or indirect benefits for organizational performance. Despite their cloak of positivity, we argue that instrumental diversity cases may represent a contextual cue of social identity threat—that is, a cue that exacerbates the concern about being devalued based on one's group membership—because they justify forming expectations about, and evaluating, individuals' contributions at work through the lens of their social identities. We therefore propose that relative to noninstrumental diversity cases, instrumental diversity cases are more identity-threatening to, and thus more detrimental to the sense of belonging of, members of underrepresented (but not well-represented) groups hoping to join organizations. By undermining underrepresented group members' anticipated sense of belonging, instrumental (vs. noninstrumental) diversity cases may also thwart their interest in joining a prospective organization making the case—an outcome ultimately at odds with organizations' espoused desire to become more diverse.

In this paper, we advance the theory of social identity threat by identifying a novel contextual cue of threat that is cloaked in positivity toward diversity. To date, research has mostly focused on cues of social identity threat that directly hint at low levels of inclusivity—such as underrepresentation (Purdie-Vaughns et al., 2008) or false representation (Kroeper et al., 2020; Wilton et al., 2020), prejudice (Davies et al., 2002), exclusory cultural norms (Cheryan et al., 2009), or fixed and nonuniversal mindsets about intelligence (Aronson et al., 2002; Muenks et al., 2020; Rattan et al., 2018). By contrast, we theorize that seemingly *positive* cues in organizations' apparently well-intentioned justifications for diversity can also evoke identity-threatening consequences. In investigating this question, we also advance scholarship on diversity, by identifying organizations' justifications for diversity as an overlooked diversity construct (as opposed to individuals' and teams' beliefs or processes around diversity; Rattan & Ambady, 2013; van Knippenberg, Homan, & van Ginkel, 2013), whose consequences are all the more crucial to interrogate since they are widespread. This research also extends an emerging body of research on the effects of instrumentality in the workplace (Belmi & Schroeder, 2021; Casciaro et al., 2014), by providing the first evidence to date that instrumental justifications for diversity can threaten underrepresented group members and women, and thereby undermine organizations' diversity goals.

Organizational Diversity Cases

Organizational diversity cases explain why an organization as a whole values diversity (as opposed to representing the views of any individual or team). As such, we conceptualize them as an organization-level construct that fundamentally differs from well-known constructs capturing the beliefs that individuals or teams within an organization may hold about diversity in relation to

workgroup functioning, such as diversity attitudes and beliefs (De Meuse & Hostager, 2001; Homan et al., 2007, 2010; van Dick et al., 2008; van Knippenberg et al., 2007), diversity mindsets (van Knippenberg, van Ginkel, & Homan, 2013), or diversity perspectives (Ely & Thomas, 2001). For instance, the three diversity perspectives (“integration-and-learning,” “access-and-legitimacy,” and “discrimination-and-fairness”) documented by Ely and Thomas (2001) in their seminal paper capture a range of beliefs that teams within organizations may hold about the role and value of diversity in their workgroup, regardless of what their company publicly says about diversity. In contrast to this team-level construct, organizational diversity cases are publicly stated explanations for why the organization *as a whole* values diversity.

We also argue that organizational diversity cases, which represent justifications for *why* diversity is valuable, are distinct from diversity ideologies, which capture beliefs about *how* best to approach diversity and have been studied at the individual level (Olsen & Martins, 2016; Plaut et al., 2018; Rattan & Ambady, 2013; Sasaki & Vorauer, 2013), and organizational level (Gündemir, Dovidio, et al., 2017; Jansen et al., 2016; Purdie-Vaughns et al., 2008; Stevens et al., 2008; Wilton et al., 2015). Three main diversity ideologies capture distinct prescriptions for how to engage with diversity. Genderblindness and colorblindness propose that group differences should be minimized (Apfelbaum et al., 2012; Markus et al., 2000; Peery, 2011; Rosenthal & Levy, 2010). Gender awareness and multiculturalism, in contrast, argue that group differences should be highlighted and celebrated (Plaut, 2010; Rosenthal & Levy, 2010; Stevens et al., 2008; Verkuyten, 2005; Wilton, Apfelbaum, & Good, 2019; Wolsko et al., 2000; Zou & Cheryan, 2015). Finally, polyculturalism proposes that emphasis should be laid on the mutual influence that different cultures have on one another (Morris et al., 2015; Rosenthal & Levy, 2010, 2012). All three ideologies prescribe *processes* for engaging with diversity (emphasizing vs. ignoring group differences), but not *purposes* for why one should pursue diversity, which is the focus of organizational diversity cases.

We similarly distinguish organizational diversity cases from diversity approaches—a construct expressly extending diversity ideologies to the organizational level. Apfelbaum et al. (2016) distinguished “value-in-difference” approaches, in which organizations highlight the importance of group differences, from “value-in-equality” ones, in which organizations minimize group differences in favor of emphasizing equality across groups. While both diversity approaches and organizational diversity cases directly investigate the content of organizations' communication about diversity, they are distinct in their focus. Diversity approaches, like diversity ideologies, capture an organization's choice to emphasize or minimize group differences (i.e., *how* an organization pursues diversity), whereas organizational diversity cases focus on *why* an organization values diversity.

The Content of Organizational Diversity Cases: Business Versus Fairness

Hypothetically, many arguments are available to organizations to justify their commitment to diversity. Anecdotally however, we observe two broad categories of justifications. The first is the “fairness case for diversity,” which argues that diversity is inherently valuable on the grounds of fairness and social justice principles (e.g., “We value diversity because it is the right thing to do”). Because the defining feature of the fairness case is its depiction of

diversity as an end in itself (rather than as a means to achieve performance), we characterize it as a *noninstrumental* rhetoric. The second is the “business case for diversity,” which argues that diversity is valuable because of its benefits for organizations’ performance, whether directly (e.g., better financial performance) or indirectly (e.g., through greater informational diversity, better recruitment, access to customer segments, etc.). Because the defining feature of the business case is its depiction of diversity as a means to an end—which is reaping benefits for organizations’ performance (e.g., “We value diversity because it makes good business sense”)—we characterize it as an *instrumental* rhetoric. Recall that in this work, we define instrumentality as rhetoric that justifies an organization’s commitment to diversity on the grounds of its benefits for organizational performance. As noted above, our current work thus exclusively focuses on the presence versus absence of instrumentality within the public diversity rhetoric that organizations use (i.e., whether or not an organization’s public diversity rhetoric ties diversity to direct or indirect benefits for organizational performance). The current work remains agnostic to the private motives that may drive an organization to use an instrumental versus noninstrumental diversity rhetoric (i.e., whether or not an organization uses a given diversity rhetoric with the unstated goal of reaping bottom-line benefits from it), which we return to in the General Discussion section.

While it is beyond the scope of the current research to offer a definitive explanation for why these two cases have attained prominence (see Bowman Williams, 2017), extant literature in sociology and law suggests that the fairness case is rooted—among other influences—in the U.S. civil rights and women’s movements of the 1960s to 1970s. These movements affirmed organizations’ role in advancing social equality, and conceptualized diversity efforts in the workplace as an attempt to end discrimination and compensate historically excluded groups for past injustices (see the 1964 Civil Rights Act, and the Equal Employment Opportunity Commission; EEOC; Bowman Williams, 2017). In contrast, the instrumental rhetoric of the business case emerged in the 1980s, in the wake of major changes in the political arena (a neoliberal backlash against the EEOC and affirmative action; Bowman Williams, 2017; Edelman et al., 2001; Kaplan, 2020; Trawalter et al., 2016), in economics circles (with the emergence of shareholder theory claiming that profit maximization is the only corporate responsibility; Carroll & Shabana, 2010; M. Friedman, 1970), and in the business sphere. In the latter, a seminal (but methodologically flawed; J. J. Friedman & DiTomaso, 1996) report called “Workforce 2000” predicted that the majority of job seekers by 2000 would be women, members of underrepresented groups, and immigrants (Johnston & Packer, 1987). This report argued that “managing diversity” would therefore become a business imperative to attract and secure the purportedly small share of highly educated job seekers in these new talent pools, and thereby avoid a shortage of skilled workforce (Edelman et al., 2001). In the wake of this report, framing diversity as a source of competitive advantage for organizations (Edelman et al., 2001; Litvin, 2002; Wittenberg-Cox, 2014) has seemingly become standard in the professional management literature, management conferences, and workshops (Edelman et al., 2001), as well as in official reports on diversity (Catalyst, 2013; Credit Suisse Research Institute, 2012; McKinsey & Company, 2015) and the general press (Clark, 2014; Manjoo, 2014; Smedley, 2014; Turner, 2015). In this context, management consultants played a crucial role

in introducing and promoting this new diversity rhetoric within organizations (Edelman et al., 2001).

While research in law and sociology suggests that the business case has been on the rise (Bowman Williams, 2017; Carroll & Shabana, 2010; Edelman et al., 2001; Kaplan, 2020), no existing work to our knowledge has quantitatively investigated the prevalence of business case (i.e., instrumental) arguments versus fairness case (i.e., noninstrumental) arguments in organizations’ diversity cases today. Our first contribution is thus to investigate the current prevalence of these cases. We build on institutional theory, which posits that over time, organizational practices disseminate within fields (e.g., the business world) not because of their presumed effectiveness, but because of the legitimacy and status that they confer to organizations who adopt them (DiMaggio & Powell, 1983). Specifically, this theory posits that some organizations are more central and established than others within the business world, and that peripheral organizations seek to gain legitimacy and status by mimicking the practices of central organizations—a mimicry process that ultimately leads to the broad dissemination of practices adopted by central organizations, and ultimately, to a homogenization of business practices across organizations (DiMaggio & Powell, 1983). Given organizations as established and vocal about diversity as McKinsey, Deloitte, or Credit Suisse have been publishing diversity reports that tout the business case for diversity for some time (Credit Suisse Research Institute, 2012, 2016; Deloitte & The Alliance for Board Diversity, 2016; McKinsey & Company, 2010, 2015), we theorized that this instrumental diversity rhetoric might have disseminated across the business world, and that other firms might have similarly adopted it. We therefore predicted that the business case for diversity would be more prevalent than the fairness case for diversity at present. In Study 1, we test this hypothesis among the Fortune 500—a set of companies that collectively employs about 29 million people worldwide (Fortune, 2020).

To the degree that organizational diversity cases are prevalent among major employers, it is critical to understand their consequences. Past research in psychology and management has almost exclusively investigated the question of the *veracity* of the business case for diversity, that is, whether or not demographic diversity actually yields performance benefits to organizations (Milliken & Martins, 1996; Williams & O’Reilly, 1998). Overall, meta-analyses on nearly 50 years of data have found weak evidence for a link between demographic diversity and superior performance, whether at the team (Horwitz & Horwitz, 2007; Hülshager et al., 2009) or board level (Pletzer et al., 2015; Post & Byron, 2015). Scholarship on this veracity question has now shifted toward documenting moderators to explain these mixed effects (Carter & Phillips, 2017; Mannix & Neale, 2005; van Knippenberg et al., 2004). While valuable, we argue that the literature’s near-exclusive focus on the question of the veracity of the business case has made for an impoverished scholarship on this instrumental rhetoric, because it has overlooked the question of its *consequences* for the different audiences who receive it, compared to alternative organizational diversity cases.

A handful studies have begun to consider the question of these consequences, but only for majority group members. These studies have shown that after being exposed to a business (vs. fairness) case for diversity, White Americans report more negative beliefs about inclusion, and exhibit more biased decision-making toward Black job applicants (Bowman Williams, 2017; Trawalter et al., 2016), yet they see the business case as more effective than the fairness case for

promoting diversity (Trawalter et al., 2016). More generally, people perceive economic arguments as more effective and legitimate than moral arguments for selling social issues like diversity (Eagly, 2016; Georgeac et al., 2019; Kaplan, 2020; Litvin, 2002; Unzueta & Knowles, 2014), or corporate social responsibility (CSR) to leaders (Dutton & Ashford, 1993; Hafenbrädl & Waeger, 2017; Sonenshein, 2006). No research to date, however, has investigated the effects of organizational diversity cases on the complex psychology of underrepresented group members, that is, on the very groups that organizations seek to attract and on which they depend to achieve their diversity goals. This paper therefore hopes to reposition the field toward centering the dynamic and complex psychological experiences of stigmatized and marginalized group members (Roberts et al., 2020). We do so by investigating whether, and how, organizational diversity cases affect job seekers from underrepresented groups, and specifically, how they may shape their anticipated sense of belonging to prospective organizations—a crucial factor in people's interest in joining potential workplaces.

Consequences for Sense of Belonging

Sense of belonging describes the extent to which one feels like an accepted member of a group, whose contributions are valued by others in the setting (Good et al., 2012). Achieving a sense of belonging at work, however, may not be equally attainable for all social groups in organizations. Due to their chronic underrepresentation in organizations and certain industries, members of underrepresented groups and women experience a chronic sense of uniqueness (Brewer, 1991; Tsui et al., 1991)—thereby making sense of belonging a more pressing, yet often unsatisfied need for these groups (Pickett et al., 2002; Shore et al., 2011). When underrepresented group members and women lack sense of belonging, they exhibit lower engagement and performance (G. L. Cohen & Garcia, 2008; Georgeac et al., 2019; Good et al., 2012; Walton & Cohen, 2007, 2011). Research has also shown that anticipated sense of belonging shapes people's interest in joining an organization or industry (Cheryan et al., 2009; Dasgupta, 2011; Good et al., 2012), a reliable predictor of actual joining (Chapman et al., 2005).

Why do we theorize that organizational diversity cases speak to underrepresented group members' anticipated sense of belonging to an organization? In nondiverse contexts, underrepresented group members and women experience their stigmatized social identity as salient (Goffman, 1963), and are therefore vigilant to contextual cues signaling that they may be judged not on their individual merit, but through the lens of their stigmatized social identities (Steele, 1997; Steele & Aronson, 1995). When cues exist in the environment that seem to confirm this possibility, underrepresented group members come to experience *social identity threat*, defined as the concern about being devalued based on one's group membership (Adams et al., 2006; Steele et al., 2002). Social identity threat, in turn, typically leads underrepresented group members and women to question whether they belong to the context inducing this sense of threat (Cheryan et al., 2009; G. L. Cohen & Garcia, 2008; Good et al., 2012; Murphy et al., 2007; Rattan et al., 2018; Steele et al., 2002; Walton & Cohen, 2007, 2011; Walton et al., 2015). Scholarship on social identity threat has therefore highlighted the importance of identifying and addressing cues that induce threat (e.g., G. L. Cohen & Garcia, 2008; Major & O'Brien, 2005; Murphy et al., 2007; Murphy & Taylor, 2012; Steele et al., 2002), though many are

structurally longstanding and difficult to change (e.g., low representation, L. L. Cohen & Swim, 1995; Inzlicht & Ben-Zeev, 2000; prejudice, Logel et al., 2009; Swim et al., 2003; exclusionary norms, Hall et al., 2018; Stephens et al., 2012; lay theories about intelligence, Aronson et al., 2002; Bian et al., 2018; Canning et al., 2019; Rattan et al., 2018).

We build on and extend this literature to propose that, despite their apparent cloak of positivity, organizational diversity cases may in fact represent an overlooked contextual cue of social identity threat in organizations. Specifically, we propose that relative to the fairness case, the instrumental nature of the business case may undermine women's and underrepresented group members' anticipated sense of belonging to an organization, and thus their interest in joining it. Recall that the business case argues that diversity improves organizational performance through the unique skills, perspectives, interaction styles, communication styles, and work styles that underrepresented individuals bring to the table, as a result of their distinct life experiences (Edelman et al., 2001). This rhetoric, on the surface, may sound positive, especially for women and members of underrepresented groups, whose contributions have historically been devalued. However, we argue that the business case does not merely recognize the different social identities that exist in the workplace (as would any diversity case). Instead, the business case uniquely ties specific social identities to specific contributions in the workplace, and in so doing, justifies attending to individuals' social identities when forming expectations about, and evaluating, their work. The business case may thus confirm to women and underrepresented group members that their social identities will be a relevant lens through which their contributions to the organization will be judged. We therefore predict that the business case will induce social identity threat among women and underrepresented group members, thus lowering their anticipated belonging to an organization making this case, and in turn, undermining their interest in joining it.

We argue that the detrimental, identity-threatening effects theorized above are unique to the business case, and do not generalize to all organizational diversity cases. By virtue of its topic, the fairness case for diversity, for instance, also raises the salience of social identities, and could therefore also represent a contextual cue activating social identity threat. Unlike the business case for diversity however, the fairness case lacks instrumentality, in that it does not tie social identities to performance benefits for the organization. As a consequence, it does not provide a justification for attending to individuals' social identities when evaluating, or forming expectations about their contributions to the organization. We thus propose that relative to the business case, the fairness case would minimize social identity threat, and thereby better sustain underrepresented groups' anticipated sense of belonging to, and interest in, a prospective organization.

Central to our research approach is our focus on the perspectives of members of social groups underrepresented in organizational contexts, which have been traditionally underresearched in psychology (e.g., Roberts et al., 2020). Secondarily, we also explore whether individuals who traditionally experience power and privilege by virtue of their group memberships might react differentially to instrumental versus noninstrumental diversity cases. Instrumentality at the individual level is indeed known to negatively affect social relations in work contexts (Belmi & Schroeder, 2021; Casciaro et al., 2014), which could theoretically extend to reactions to organizations using instrumental prodiversity arguments. If this were the case, one would predict that majority group members and men

should also react negatively to such arguments. In contrast to underrepresented group members however, members of majority and well-represented groups generally do not exhibit vigilance for social identity-relevant cues (G. L. Cohen & Garcia, 2008; Steele et al., 2002; though they can in specific contexts, see Leyens et al., 2000), because they do not typically have to worry about being devalued based on their group memberships (Adams et al., 2006). We therefore propose that the instrumentality inherent in the business (vs. fairness) case for diversity will have uniquely detrimental effects on underrepresented (but not well-represented) groups.

Overview of Studies

Restated, we predict that the business case is more prevalent than the fairness case in organizations' diversity cases, at present (Hypothesis 1 [H1]; Study 1). We next investigate the consequences of organizations' diversity cases, and predict that exposure to the business (vs. fairness, or a control) case may lower female and minority job seekers' anticipated sense of belonging to the organization making this case (Hypothesis 2 [H2]; Studies 2–6), through greater social identity threat (Hypothesis 3 [H3]; Studies 3–6). Given the crucial role of anticipated sense of belonging in predicting interest in joining new contexts (Bian et al., 2018; Cheryan et al., 2009; Dasgupta, 2011; Good et al., 2012), we further predict that lower anticipated sense of belonging among women and underrepresented group members will in turn predict lower interest in joining the organization (Hypothesis 4 [H4]; Studies 2–3 and 5–6)—a key outcome for organizations hoping to recruit from underrepresented talent pools (Chapman et al., 2005; Schein & Diamante, 1988; Turban & Keon, 1993). We test these hypotheses in the context of groups stigmatized due to their sexual orientation (Study 2), gender (Studies 3–4), and race (Studies 5–6), and compare the effects of instrumentality in the business case to both the fairness case (Studies 2–6) and a control case (Studies 4–6). Because well-represented groups do not typically experience social identity threat (G. L. Cohen & Garcia, 2008; Steele et al., 2002), we further predict that the effects hypothesized above will hold among underrepresented, but not well-represented, groups (Hypothesis 5 [H5]; Studies 3 and 6). These studies complied with ethical standards, and were approved by the Research Ethics Committee at London Business School or Yale University. Across all studies, we report all measures, methods, and sample size determinations either in the main text or in the Supplemental Online Material (SOM).

Study 1

Our first goal was to estimate the prevalence of the business and fairness case. To do so, we collected and analyzed the organizational diversity cases of the Fortune 500 companies—the biggest U.S. companies in terms of annual revenue, which collectively employ about 29 million people worldwide (Fortune, 2020).

Method

Development of the Dataset

To understand the prevalence of the business (vs. fairness) case in the diversity cases that organizations make, two research assistants (blind to the study's hypotheses) were recruited to collect any text relevant to the question of *why* an organization values diversity from each of the Fortune 500 companies' websites. Research assistants

searched for and collected each company's organizational diversity case on the company's D&I webpage. If the company did not have a dedicated D&I webpage, or if its D&I page did not contain any organizational diversity case, the research assistants were instructed to search for the company's diversity case on its Careers page, then in corporate articles published on its website, and as a last resort, on the company's blog (if any), in this order. At each step of the process, if the research assistants found the company's diversity case, they collected it, and stopped their search there for the company at hand. Each research assistant collected text for 250 companies, and then verified that all relevant information had been collected for the 250 companies that their colleague had collected. If they found information that had been overlooked, they added it to what their colleague had collected.

Ninety of the Fortune 500 companies (i.e., 18%) did not have an organizational diversity case—they either did not talk about diversity on their website, or talked about it without providing any justification for *why* diversity mattered to them (e.g., by providing their diversity statistics, describing their diversity programs, etc.). For each of the remaining 410 companies among the Fortune 500 companies, we found organizational diversity cases. These diversity cases represented long and intricate paragraphs of text, which included many different prodiversity arguments. The complexity and length of this body of text (2,754 sentences in total) would have made it challenging for human coders to code these organizational diversity cases reliably between themselves, due to fatigue effects (James et al., 2017). For this reason, we used a supervised machine learning approach.

Machine Learning Procedure for Computerized Text Analysis

Because the goal of this study was to predict the category of the Fortune 500 diversity cases, we used an algorithmic classification.¹ The organizational diversity cases collected were classified into two categories, business case or fairness case, using a Least Absolute Shrinkage and Selection Operator (LASSO) classifier that implemented a regularized logit model with 10-fold cross-validation (James et al., 2017). We chose a LASSO classifier because of the greater interpretability of its results relative to other types of classifiers. This technique involves three stages: training the classifier; testing its accuracy; and generalizing the classification to the Fortune 500 cases.

Step 1: Training the Classifier. The training stage corresponds to the phase in which the classifier “learned” about the characteristics of the “business case” and “fairness case” categories from a set of examples. To avoid losing a portion of our Fortune 500 dataset by taking a subsample of diversity cases to use as examples for “teaching” the classifier about these two categories, we instead provided it with an independent set of business and fairness case arguments, which we collected from MBA students (for an explanation of why we took this approach to constructing the training set, see SOM). These students represented 13 industries, which ensured that the arguments the classifier would be trained on were not idiosyncratically representative of a single industry.

¹ Despite the variety of dictionaries that have been developed for research, dictionaries often cannot readily capture researchers' construct of interest in specific contexts, such as instrumentality in the context of diversity rhetoric. In such specific contexts, algorithmic classification has been shown to almost always outperform dictionary methods (James et al., 2017).

Creating the Training and Testing Sets. The arguments on which we trained the classifier were collected from a sample of 397 MBA students ($M_{\text{age}} = 28.25$, $SD = 2.39$, range = [23; 37]; 240 men, 136 women, 3 third gender, 18 nonspecified; 13 industries; 272 organizations) who were asked to list up to three prodiversity arguments that they recalled their most recent employer using to justify their commitment to diversity. Each response was provided in a free response format, and typically took the form of a sentence (or a “bullet point” phrase) containing a single argument. The short format and simplicity of the responses made it possible for two independent human coders (blind to hypotheses) to hand-label each of these arguments as either a pure business case, a pure fairness case, a mixed case, or neither of those (see SOM for detailed procedure and data coding scheme). Of the 503 prodiversity arguments recorded, 66.2% were coded as business case, 28.0% as fairness case, 3.8% as mixed, and 2.0% as neither. Sample arguments for the business case category were: “More diverse companies are better able to win top talent,” “It’s better for the firm’s profits and bottom line”; for the fairness case: “People deserve to be treated equally regardless of their sexual orientation, race, or gender,” “Cultivate an inclusive environment”; for the mixed case: “It’s the right thing to do and it’s good for our business”; for the “neither” category: “Just to comply with diversity metrics” (see Table S1 in SOM for more examples). To train and test the classifier, we only selected the 474 arguments that were coded as pure business ($N = 333$, i.e., 70% of arguments selected) or fairness case ($N = 141$, i.e., 30% of arguments selected). This set of MBA arguments was then split into two stratified random subsets. The first subset (80% of the entire set of MBA arguments²; hereafter referred to as the “training set”) was used to train the classifier, and the second subset (20% of the entire set; the “testing set”) was used to test the performance of the classifier on previously unseen arguments.

Building the LASSO Classifier. In the training phase, we built the logit model of the classifier based on the arguments in the training set. In this model, the dependent variable represented the log odds of having a “fairness case” label for a given argument. In addition, the logit model contained an independent variable for every word appearing more than five times in the entire text corpus, which corresponded to its proportional frequency within a given argument (i.e., the number of occurrences of this word within the argument, divided by the total number of words in the argument). For each of these independent variables, the associated logit coefficient represented a given word’s power to predict an argument’s label. For instance, a word used in all fairness case arguments and no business case arguments would have greater predictive power than a word found in all fairness case arguments and half of the business case arguments to predict whether or not a given argument pertained to the fairness case category. Accordingly, the logit coefficient associated to this word would have a greater value. The logit model was therefore as follows Equation 1:

$$\log\left(\frac{p(X_i = 1)}{1 - p(X_i = 1)}\right) = \alpha + \sum_{k=1}^N \beta_k \frac{\text{Number of occurrences of Word } k \text{ in Argument } i}{\text{Total number of words in Argument } i} + \varepsilon, \quad (1)$$

with $p(X_i = 1)$ the probability for a given Argument i to be of a “fairness case” type; α the intercept; β_k the predictive power of Word

k to predict the “fairness case” category; N the number of words in the entire corpus that appear more than five times; ε the error term.

Because it is impossible to estimate regression coefficients when the number of independent variables is greater than the number of observations (which was the case here, as there are more words than arguments), a prerequisite to predicting the category of each argument in the sample was first to reduce the number of predictors in the logit model above. Reducing the number of predictors, however, raised the question of which subset of words to select for optimal classification performance. The LASSO technique provides a solution to this, by only selecting those words that have the highest predictive power for the classification outcome, and forcing to zero the coefficients of the predictors with relatively lower predictive power, thanks to a hyperparameter called lambda (a process called “regularization”; see SOM for further details). For details on how the lambda hyperparameter reduces the number of predictors, how we used a 10-fold cross-validation process to determine the optimal lambda, why the LASSO is advantageous relative to other classification models, and how we used weights and decision threshold tuning to address the imbalanced representation of business and fairness cases in training data set, please see SOM.

Our final model ($\lambda = 0.0027$, weights = 0.7, decision threshold = 0.75) maximized the classifier’s performance in the cross-validation phase (as measured through the F1-score³). The classifier identified words such as “productive,” “beneficial,” and “stronger” as some of the most predictive words for the business case category, and “fair,” “ethical,” and “right” as some of the most predictive words for the fairness case category (see SOM for complete list). Next, we tested the classifier’s performance on the unseen data of the testing set.

Step 2: Testing the Classifier. We tested the LASSO classifier’s performance in predicting the labels of arguments in the testing set (which represented the 20% of MBA arguments that were not used in the training set). An argument in the testing set would be classified as fairness case if given the words it used, the classifier predicted that it had an estimated probability superior to 0.75⁴ (the decision threshold) of pertaining to the fairness case category. If this estimated probability was inferior to 0.75, the argument was instead classified as business case.

The classifier had a 78.4% F1-score, and an 11.7% test error rate, which is a satisfactory result for accuracy⁵ (James et al., 2017). See SOM for a discussion of algorithmic performance in light of

² We determined through a grid search the proportion of the overall set of arguments to assign to the training set such that the classifier’s performance on the training set would be maximized (as measured by the F1-score).

³ The F1-score is a measure of algorithmic performance preferred to accuracy in unbalanced contexts (Lever et al., 2016). The F1-score evaluates the algorithm’s performance in light of its classification performance on the category most at risk of misclassification in unbalanced contexts—the minority category, here the “fairness case.”

⁴ A typical decision threshold value to classify cases based on their predicted probability is 0.5. However, in contexts where the training and testing sets are unbalanced (as is the case here), adjusting this standard threshold helps to mitigate the risk of misclassification for instances of the minority category (here, “fairness case” arguments; Provost, 2000). To choose the value of the optimal cut-off in a nonarbitrary way, we determined through a grid search the value of the decision threshold maximizing the F1-score of the classifier on the training set. The grid search revealed that a cut-off of 75% maximized the F1-score (see SOM for more details).

⁵ As a reference point, an algorithm classifying arguments at random on our unbalanced test set would have a 30% F1-score, and a 30% error rate.

precision and recall, and of signal detection theory (Macmillan & Creelman, 1991).

Step 3: Generalizing the Classification to the Fortune 500 Organizational Diversity Cases. Finally, we conducted the focal analysis for this study, which aimed at classifying the Fortune 500 diversity cases as either a business or fairness case. Given the difference in formats between the training and testing sets (which contained single sentences or phrases) and the Fortune 500 diversity cases (which represented entire paragraphs of text), we first sought to enhance the comparability between the two bodies of text by splitting the Fortune 500 cases into their individual sentences. For each sentence in a given case, the classifier computed an estimated probability of pertaining to the fairness case. Finally, each case was classified as fairness or business case depending on whether its predicted probability (computed as the average estimated probability across sentences in the case) was above or below the decision threshold of 0.75.

Results

Recall that 90 of the Fortune 500 companies (18%) did not have any organizational diversity case. Among the remaining 410 organizational diversity cases collected, the LASSO classification revealed that 404 (i.e., 81% of the Fortune 500) were classified as business case, and only six (1% of the Fortune 500) were fairness case.

To offset possible concerns that this result could be attributed to the specific classifier we used, we ran the Fortune 500 cases through a second LASSO classifier, which used word stems as predictors instead of entire words (see SOM for details). The results were nearly the same: business cases represented 78%, and fairness cases less than 5% of the Fortune 500. These results suggest that, at least among the Fortune 500, organizations overwhelmingly use the business case (rather than the fairness case) to justify why diversity matters to them.

Discussion

A core contribution of this study is to identify the content and prevalence of different justifications for why organizations support diversity. Supporting H1, Study 1 provides evidence that the business case is significantly more prevalent than the fairness case: about 80% of organizations' diversity cases for the business case, versus 1%–5% for the fairness case.

While natural language in reality is complex, with words interacting with each other to generate meaning, we note that the classifier's performance is all the more satisfactory in light of the fact that it only used single words as predictors. One critique might be that the words used in MBAs' recollections could have been substantially different from those in organizations' diversity cases. Yet, if that were true, the classifier would not have been able to identify instances of both the fairness and business case among the Fortune 500 diversity cases. Future research could find (or create) new datasets of organizational diversity cases to train the classifier, to reduce the test error rate even more.

Another limitation, given that the current classifier is binary, has to do with the possibility that there were mixed cases among the Fortune 500 diversity cases, that is, cases that included both "business case" and "fairness case" rhetoric. While the dichotomous

classification technique we used does not allow us to apprehend the prevalence of mixed cases among the Fortune 500 companies, it nevertheless categorizes organizational diversity cases based on the *predominance* of words predictive of the business versus fairness case within the text collected for each organization, and thereby gives us an idea of the type of diversity rhetoric that people *predominantly* hear from the biggest organizations out there. Understanding the prevalence and psychological effects of mixed cases is an exciting direction for future research, which we discuss in the General Discussion section. We consider this beyond the scope of the current investigation, because understanding the psychological effects of mixed cases would be impossible without first understanding the respective effects of the business and fairness case in isolation. Accordingly, this paper focuses on the consequences of the business versus fairness case, and documents the prevalence of these two cases in the real world.

In sum, the classification used in Study 1 provides evidence that the business case is the most prevalent organizational diversity case out there—and is far more prevalent than the fairness case. The results of Study 1 therefore highlight how important it is to investigate the consequences of these organizational diversity cases for underrepresented groups, which is our focus in the remainder of this paper.

Study 2

Study 2 takes an experimental approach (preregistered on the Open Science Framework [OSF]; see SOM for link to anonymized preregistration) to investigating the consequences of organizational diversity cases among job seekers from underrepresented groups, specifically testing our theory among a field sample of LGBTQ+ professionals. In addition to being a traditionally stigmatized group in society (Asbrock, 2010; Fasoli et al., 2017; Fassinger et al., 2010; Griffith & Hebl, 2002; Hebl et al., 2014; Steffens et al., 2019), LGBTQ+ individuals have been stereotyped in organizational contexts as lacking leadership potential relative to heterosexual individuals (Fasoli et al., 2017; Fassinger et al., 2010). Moreover, they remain severely underrepresented in leadership, with less than 0.3% of Fortune 500 board directors being openly LGBTQ+ (Quorum, 2019). Given this, we theorized that, when considering applying for a leadership position, LGBTQ+ professionals may be vigilant to environmental cues suggesting that they could be devalued based on their sexual orientation in a prospective organization. LGBTQ+ professionals therefore represent an ideal population to test our theory that the business (but not fairness) case functions as a cue of social identity threat among underrepresented groups.

Method

Participants

We recruited LGBTQ+ professionals at a prominent European LGBTQ+ recruitment and community-building conference for business school graduate students and alumni. This sample of LGBTQ+ professionals were either completing, or had graduated from, their graduate program, and were attending this recruitment event dedicated to applicants seeking leadership roles in organizations. We preregistered a plan to recruit participants for a duration of

10 days after the survey launched, but accidentally left the survey open for 2 weeks, and therefore included anyone who participated within this period. We excluded from analyses the responses of heterosexual allies ($N = 11$). This resulted in a sample of 151 respondents ($M_{\text{age}} = 31.56$, $SD = 8.13$, range = [20; 60]; 116 men, 14 women, 3 nonbinary, 18 nonspecified; 13 self-identified as lesbians, 128 as gay, 8 as bisexual, 1 as transsexual, 1 as “other”; 39 nationalities; 12 industries; race not measured). Participants who took part in the study were entered in a prize draw for one of three £100 Amazon vouchers.

Procedure

We used a between-subjects experimental design (Condition: Business case vs. Fairness case). After providing informed consent and indicating their sexual orientation (heterosexual allies were excluded from analyses), participants were asked to imagine that they were looking for a new job in their industry—a realistic scenario for attendees at this recruitment conference. Next, participants were randomly assigned to read a business case or a fairness case. These diversity cases were crafted based on a typology of typical business case and fairness case arguments that we built based on the arguments that we collected among MBA students (see SOM, Table S1). After finding evidence that these types of arguments are indeed used in the Fortune 500 organizational diversity cases, we crafted the business case and fairness case below, which include each different subtype of business versus fairness case arguments that we identified.

Organizational Diversity Case Manipulation

All participants read: “Imagine that you are looking for a new job in your industry. You come across an organization that has some potentially attractive openings. As you read over their website, you come across the following statement.” Next, participants were randomly assigned to read either the business [or fairness] case for diversity experimental manipulation:

As an organization, we strongly believe in promoting diversity, because it *simply makes good business sense [is the right thing to do]*. We want the diversity that exists in the outside world to be reflected in our diverse workforce to ensure that *we truly understand all of our customers’ needs [every employee is treated fairly, without bias or discrimination]*. People from different backgrounds *tend to think differently [An inclusive culture makes everyone feel more open]*, and this is how we produce the best business solutions *[the conditions for all of our employees to thrive]*. In sum, we value diversity because we believe it is *good for the bottom line [the fair thing to do]*.

Measures

Anticipated Sense of Belonging. Participants completed four items adapted from Good et al.’s (2012) validated sense of belonging measure (due to constraints on the survey length, we were not able to administer a longer version of the sense of belonging scale). These four items captured three facets of anticipated sense of belonging, including the extent to which participants anticipated feeling like a member of the organization (“I would feel like an outsider at this organization,” reverse-scored), being accepted in the organization (“I would feel accepted at this organization,” “I would feel respected at this organization”), and being rejected in the

organization (“I would feel excluded at this organization,” reverse-scored). Participants indicated their responses on a scale ranging from 1 = *Strongly disagree* to 6 = *Strongly agree*. The items were reliable ($\alpha = 0.84$), and were averaged to form the measure of anticipated sense of belonging.

Attraction to the Organization. To measure a potential consequence of anticipated sense of belonging, we asked participants to complete Schein and Diamante’s (1988) four-item measure of organizational attractiveness (e.g., “This organization will likely meet my desires and needs,” “I would very much like to work for this organization”; $\alpha = 0.93$). Participants indicated their responses using a scale ranging from 1 = *Strongly disagree* to 5 = *Strongly agree*.

Finally, participants completed two secondary measures (see SOM), provided their demographic information, and were debriefed.

Results

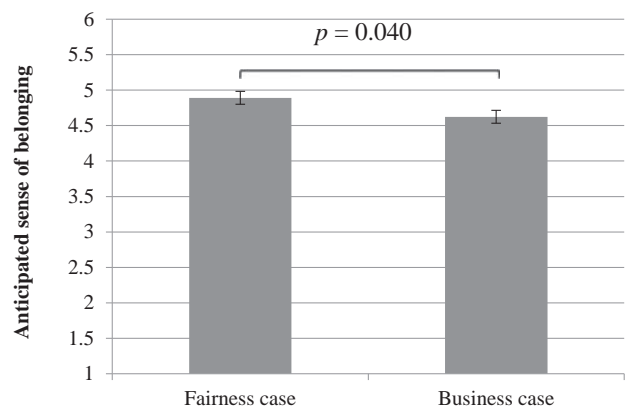
As per our lab policy, we verified that the demographics measured in this study were balanced across conditions, to ensure that the core assumption of baseline comparability across cells in experimental designs is valid (Fives et al., 2013). We found no significant difference across conditions for any of the demographic variables measured, and thus did not include any covariates in the analyses.

Anticipated Sense of Belonging

To test H2, we ran an independent-samples *t*-test to investigate the effect of condition on participants’ anticipated sense of belonging. As predicted, and in support of H2, this effect was significant (see Figure 1). Relative to those in the fairness case condition, LGBTQ+ professionals who were randomly assigned to read the business case reported significantly lower anticipated sense of belonging to the prospective organization relative to those in the fairness case condition ($M_{\text{Business}} = 4.62$, $SD = 0.82$, 95% CI [4.44; 4.80],

Figure 1

Significant Main Effect of Type of Organizational Diversity Case Condition (Business Case vs. Fairness Case) on Anticipated Sense of Belonging in Study 2



Note. Error bars represent standard errors of the means.

$M_{\text{Fairness}} = 4.89$, $SD = 0.76$, 95% CI [4.71; 5.08], $t(149) = 2.07$, $p = 0.040$, $d = 0.34$, 95% CI [0.02; 0.66].

Indirect Effect

We theorized an indirect effect of Type of organizational diversity case (X) on Attraction to the organization (Y), via Anticipated sense of belonging (M ; H4; Model 4 in Hayes, 2013; see Figure 2). To test this, we effect-coded type of organizational diversity case (Fairness case condition = -1 ; Business case condition = 1). The coefficients reported below are indirect effects and their bias-corrected, bootstrapped 95% CIs, computed with 10,000 resamples using the PROCESS macro (Hayes, 2013).

There was a significant indirect effect of type of diversity case on reported attraction to the organization through anticipated sense of belonging ($b = -0.105$, $SE = 0.050$, 95% CI [-0.203 ; -0.007]). Consistent with our theory and supporting H4, LGBTQ+ participants exposed to the business (vs. fairness) case for diversity reported significantly lower anticipated sense of belonging to the organization making this case, which in turn was associated with significantly lower attraction to the organization making the case.

Discussion

Supporting H2 and H4 among members of sexual orientation minority groups, Study 2 finds evidence suggesting that exposure to a business (vs. fairness) case for diversity generates lower anticipated sense of belonging among LGBTQ+ professionals, in turn predicting lower attraction to the organization making the case. Study 2 thus provides initial evidence among LGBTQ+ individuals at a recruitment conference that despite its popularity, the business case may paradoxically hamper organizations' efforts to attract job seekers from underrepresented and historically stigmatized groups. A limitation of this study is that the strong representation of gay men within our LGBTQ+ sample (about 85%) limits our ability to generalize our findings to each of the constituent groups of the LGBTQ+ community (i.e., lesbians, bisexuals, trans, queer, etc.). Another limitation is that the fairness case version of the manipulation included the phrase "inclusive culture." This raises the possibility that the significant effect of the manipulation on LGBTQ+ professionals' anticipated sense of belonging may stem from an unintended manipulation of perceived inclusion in the prospective

organization, rather than from differences in the instrumentality of the organizational diversity case. We correct this in the subsequent studies.

Study 3

The goal of Study 3 was twofold. The first was to conceptually replicate the findings of Study 2 among another devalued group: female job seekers in STEM (Science, Technology, Engineering, and Math). In addition to being severely underrepresented in STEM relative to men (Landivar, 2013; National Science Foundation, 2017), women are also stigmatized in these industries, with prevalent stereotypes across the world claiming that women lack the potential to excel in STEM domains (Drury et al., 2011; Eccles, 2005; Leslie et al., 2015; Ratliff et al., 2020; Stout et al., 2011). The second goal of Study 3 was to directly test our theory that the effects of organizational diversity cases as an environmental cue would be particular to members of stigmatized groups by comparing the effects of the business (vs. fairness) case for diversity on women versus men (who are not stigmatized) in STEM.

Study 3 also improves upon Study 2 in three additional ways. First, we used a more externally valid manipulation by drawing on diversity cases from the world's top 10 STEM organizations (Dill, 2016). Second, while length restrictions in Study 2 only allowed us to include single-item measures from the various subscales of the sense of belonging measure, in Study 3, we used the full subscales to more precisely investigate which facet of anticipated belonging is most impacted by the business case for diversity. Third, we included a measure of social identity threat to directly explore the psychological process by which we propose that organizational diversity cases may affect these outcomes. Hypotheses were preregistered on OSF (see SOM for link to anonymized preregistration).

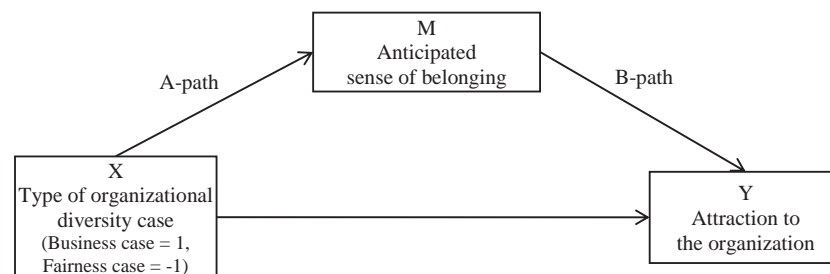
Method

Participants

Based on the size of the effects reported in Study 2, we decided in Study 3 to double our sample size in order to improve the statistical power of our analyses, and to further increase sample size to account for a potentially high attrition rate. Our recruitment target was therefore 350 job seekers identifying as male or female (binary

Figure 2

Indirect Effect Analysis in Study 2, Corresponding to Model 4 in Hayes (2013)



Note. The path represents the indirect effect of Type of organizational diversity case (X) on Attraction to the organization (Y), through Anticipated sense of belonging (M).

to allow for large enough samples for the comparison), who were currently enrolled in or had graduated from a postsecondary education institution (i.e., a minimum of an associates', or an incomplete bachelors' degree), and who were seeking a job in at least one the following STEM industries: physical sciences (e.g., biology, chemistry, physics), computer science, engineering (e.g., mechanical engineering, bioengineering, electrical engineering), or mathematics. The initial panel (recruited through Qualtrics, an online panel company that has a policy to over-sample to account for attrition) was 419 participants, but 14 participants failed to give informed consent, 13 failed to correctly answer an attention check embedded in the survey, and 21 did not finish the survey. These participants were thus excluded as per our preregistered exclusion criteria.

Our final sample therefore consisted of 371 participants ($M_{\text{age}} = 37.71$, $SD = 11.11$, range = [19; 70]; 177 men, 194 women; 235 European Americans, 28 African Americans, 15 Latina/o Americans, 9 Native Americans, 21 East Asian Americans, 11 South-East Asian Americans, 21 South Asian Americans, 5 Middle Eastern Americans, 9 identified as "Other," 17 identified as Multiracial; 285 employed full-time, 56 employed part-time, 21 unemployed, 9 not currently working [e.g., student, stay-at-home parent, on leave, etc.]; 168 looking for a job in Computer Science, 110 in Engineering, 68 in Physical Sciences, 25 in Mathematics).

Procedure

We used a 2 (Condition: Business case vs. Fairness case) \times 2 (Gender: Women vs. Men) between-subjects experimental design. Participants first indicated their employment status and whether they were currently looking for a job, their gender, their highest attained education level, and the industry in which they were looking for a job. Participants meeting the inclusion criteria described above provided informed consent, and as in Study 2, were asked to imagine that they were looking for a new job in their industry, and that they had come across an organization that had some potentially attractive openings, and which had published a statement on its website.

Organizational Diversity Case Manipulation

Participants were then randomly assigned to read a business [or a *fairness*] case for diversity, each crafted based on diversity cases published on the websites of the world's top 10 STEM companies (Dill, 2016) to increase the external validity of our manipulation, a pilot study ($N = 100$) found no significant difference across conditions in the degree to which participants reported liking the diversity cases, or in the positive and negative affect that participants across conditions reported after reading the diversity cases; see SOM for full details:

Diversity and inclusion are part of our company's commitment to *performance [equality]*. Behind this focus is a simple but powerful idea: That diversity simply *makes good business sense [is the right thing to do]*. Our diversity and inclusion initiatives drive *positive business results by advancing our reputation to attract, retain, and engage diverse talents [a sense of community by advancing our values of respecting, supporting, and nurturing diverse talents]*. We also strive to create an environment in which our company can *leverage the unique contributions of our diverse employees to develop innovative solutions for our diverse customer base [empower our diverse employees to grow and thrive as human beings whose ideas are heard and appreciated]*.

In sum, we firmly believe that diversity and inclusion can help our organization *meet and exceed our business goals [foster respect and opportunity for all]*.

After reading the manipulation, participants responded to an attention check question. As per the preregistered exclusion criteria, only participants who answered correctly were presented with the following measures.

Measures

Anticipated Sense of Belonging. Participants completed three subscales adapted from Good et al.'s (2012) validated sense of belonging measure: membership (e.g., "I feel like I would be a part of the organization"; 4 items, $\alpha = 0.92$), acceptance (e.g., "I would feel accepted at this organization"; 4 items, $\alpha = 0.92$), and rejection (e.g., "I would feel excluded at this organization"; 4 items, $\alpha = 0.97$; scales: 1 = *Strongly disagree* to 6 = *Strongly agree*). A confirmatory factor analysis (CFA) unexpectedly revealed that this measure of anticipated sense of belonging was multidimensional, such that a three-factor model—with anticipated membership, acceptance, and rejection each on separate factors—fitted the data best (see SOM). For this reason, we present analyses of this measure split by subscale.

Attraction to the Organization. Participants completed the measure of organizational attractiveness used in Study 2 ($\alpha = 0.91$).

Desire to Join the Organization. Participants also completed Turban and Keon's (1993) five-item measure of desire to apply to and join the organization (e.g., "Would you be interested in pursuing your application with the company?," "Would you accept a job offer from the company?"; $\alpha = 0.79$; scale: 1 = *Strongly agree* to 7 = *Strongly disagree*).

A CFA showed that the model that best fitted the data was one in which attraction to the organization and desire to join the organization were each on distinct factors (see SOM). This result confirms that while attraction to the organization and desire to join the organization are both fair operationalizations of our conceptual variable of job seekers' interest in an organization, they also represent distinct constructs—with attraction to the organization capturing generic interest in the company, and desire to join the organization capturing interest in joining specifically from the perspective of job seekers engaged in the recruitment process.

Social Identity Threat. Participants completed a three-item measure of social identity threat (e.g., "How much would you worry that people in this company might draw conclusions about you based on gender stereotypes?"; $\alpha = 0.95$; scale: 1 = *Not at all* to 6 = *Extremely*), which was adapted from G. L. Cohen and Garcia (2005) and Rattan et al. (2018).

Finally, participants completed secondary measures (see SOM), provided their demographic information, and were paid, debriefed, and thanked.

Results

As per our lab policy, we controlled in all analyses for the demographic characteristics that varied across conditions despite random assignment to conditions (political ideology, seriousness of job search, number of job interviews done, level of responsibility, and number of subordinates), and across gender groups (current employment status, type of STEM occupation currently or previously held, targeted industry for job search, race, and native English-

speaker status; see SOM for details). The significant results described below all remain significant without controlling for these covariates.

Anticipated Sense of Belonging

We conducted two-way analysis of covariances (ANCOVAs) to investigate the effect of condition on each of the three facets (membership, acceptance, and rejection) of anticipated belonging among women versus men, controlling for the unbalanced demographic variables across conditions and gender groups.

Table 1 summarizes the results. There was no significant effect of the Gender \times Condition interaction on anticipated membership ($F(1, 344) = 2.33, p = 0.13, \eta_p^2 = 0.007, 90\% \text{ CI } [0.000; 0.028]$).⁶ There was a marginally significant effect of the Gender \times Condition interaction on anticipated acceptance ($F(1, 344) = 3.84, p = 0.051, \eta_p^2 = 0.011, 90\% \text{ CI } [0.000; 0.036]$),⁷ but pairwise comparisons revealed that the effect of the manipulation was neither significant among women ($M_{\text{Business}} = 4.92, SE = 0.16, 95\% \text{ CI } [4.60; 5.24], M_{\text{Fairness}} = 5.10, SE = 0.15, 95\% \text{ CI } [4.80; 5.40], t(344) = 1.29, p = 0.20, d = 0.20, 95\% \text{ CI } [-0.09; 0.48]$), nor among men ($M_{\text{Business}} = 5.00, SE = 0.16, 95\% \text{ CI } [4.68; 5.31], M_{\text{Fairness}} = 4.79, SE = 0.17, 95\% \text{ CI } [4.46; 5.12], t(344) = -1.48, p = 0.14, d = -0.23, 95\% \text{ CI } [-0.53; 0.07]$).

However, there was another significant effect of the Condition \times Gender interaction on anticipated rejection ($F(1, 344) = 5.44, p = 0.020, \eta_p^2 = 0.016, 90\% \text{ CI } [0.001; 0.044]$; see Figure 3). In support of H2, pairwise comparisons revealed that female job seekers in the business case condition anticipated significantly greater rejection in the organization ($M_{\text{Business}} = 2.79, SE = 0.26, 95\% \text{ CI } [2.27; 3.31]$), than their counterparts in the fairness case condition ($M_{\text{Fairness}} = 2.17, SE = 0.25, 95\% \text{ CI } [1.68; 2.66], t(344) = 2.77, p = 0.006, d = 0.43, 95\% \text{ CI } [0.14; 0.71]$). In contrast, and in support of H5, male job seekers were unaffected by the manipulation ($M_{\text{Business}} = 2.66, SE = 0.26, 95\% \text{ CI } [2.14; 3.18], M_{\text{Fairness}} = 2.78, SE = 0.28, 95\% \text{ CI } [2.24; 3.33], t(344) = 0.55, p = 0.58, d = -0.09, 95\% \text{ CI } [-0.38; 0.21]$).

We note that the pattern of results documented for anticipated rejection also emerged as significant when analyses were conducted on overall sense of belonging. Specifically, women (but not men) in the business (vs. fairness) condition reported significantly lower overall anticipated sense of belonging (see SOM for results).

Conditional Indirect Effects

In each of the analyses reported below, we effect-coded type of organizational diversity case (Fairness case condition = -1; Business case condition = 1) and Gender (Female = -1; Male = 1). The coefficients reported below are indirect effects and their bias-corrected, bootstrapped 95% CIs, computed with 10,000 resamples using the PROCESS macro in SPSS (Hayes, 2013).

Through Anticipated Sense of Belonging. We tested for indirect effects of Type of organizational diversity case (X), via each of the three facets of Anticipated sense of belonging, membership (M_1), acceptance (M_2), and rejection (M_3), on each of the outcomes (Y), dependent on participant gender (W), which could moderate the $X-M_i$ links or the $X-Y$ link (H4, H5; Model 8 in Hayes, 2013; see Figure 4), and controlling for the same demographic variables as above.

Table 2 summarizes the results. The conditional indirect effects through the membership and acceptance facets of anticipated sense of belonging were not supported for either outcome variable. We therefore only describe in detail the conditional indirect effects through the rejection facet of anticipated sense of belonging.

Attraction to the Organization. The conditional indirect effect on attraction to the organization was not supported (index of moderated mediation: $b = 0.01, SE = 0.01, 95\% \text{ CI } [-0.004; 0.031]$; women: $b = -0.01, SE = 0.01, 95\% \text{ CI } [-0.025; 0.003]$; men: $b = 0.002, SE = 0.004, 95\% \text{ CI } [-0.006; 0.011]$).

Desire to Join the Organization. As predicted, gender significantly moderated the indirect effect of type of diversity case on desire to join the organization, through anticipated rejection (index of moderated mediation: $b = 0.10, SE = 0.05, 95\% \text{ CI } [0.014; 0.203]$). Supporting H4 and H5, female job seekers in STEM anticipated significantly greater rejection in the business (vs. fairness) case condition, and in turn reported significantly lower desire to join the organization ($b = -0.09, SE = 0.03, 95\% \text{ CI } [-0.155; -0.024]$)—an indirect effect not supported among men ($b = 0.02, SE = 0.03, 95\% \text{ CI } [-0.048; 0.085]$).

Through Social Identity Threat. We next explored our theory that social identity threat would drive the detrimental effects of the business case for diversity on sense of belonging among underrepresented (but not well-represented) group members (H3, H5). We tested for an indirect effect of Type of organizational diversity case (X), via Social identity threat (M) on each of the three facets of Anticipated sense of belonging (Y), dependent on participant Gender (W), which could moderate the $X-M$ links or the $X-Y$ link (Model 8 in Hayes, 2013; see Figure 5), and controlling for the same demographic variables as above.

The conditional indirect effects of type of diversity case through social identity threat on the membership and acceptance facets of anticipated sense of belonging, conditional on gender were not supported. However, consistent with our theory and in support of H3 and H5, female job seekers in STEM experienced significantly greater social identity threat in the business (vs. fairness) case condition, and in turn anticipated significantly greater rejection in the organization ($b = 0.14, SE = 0.07, 95\% \text{ CI } [0.017; 0.274]$). In contrast, this indirect effect was not supported among men ($b = -0.01, SE = 0.07, 95\% \text{ CI } [-0.155; 0.136]$)—although we note that the moderated mediation did not reach significance (index of moderated mediation: $b = -0.15, SE = 0.10, 95\% \text{ CI } [-0.344; 0.041]$).

Discussion

Using an improved and more externally valid manipulation, Study 3 builds upon Study 2 to provide further evidence that exposure to a business (vs. fairness) case for diversity generates lower anticipated sense of belonging to a prospective

⁶ 90% CIs have been shown to be more appropriate than 95% CIs for eta-squared statistics, in part due to the fact that these statistics cannot be negative (Steiger, 2004; Wuensch, 2009).

⁷ Without any controls, a significant effect of Gender \times Condition on anticipated membership ($F(1, 367) = 3.74, p = 0.054, \eta_p^2 = 0.010, 90\% \text{ CI } [0.000; 0.034]$), and anticipated acceptance ($F(1, 367) = 5.29, p = 0.022, \eta_p^2 = 0.014, 90\% \text{ CI } [0.001, 0.041]$) emerged. However, given the existence of unbalanced demographics across conditions and gender groups, it is impossible to reliably attribute these significant effects to the manipulation—and indeed, controlling for these unbalanced demographics renders these interactions nonsignificant or marginally significant (see results reported above).

Table 1

Study 3 Descriptive Statistics and Results of the 2 (Condition: Business Case vs. Fairness Case) × 2 (Gender: Women vs. Men) ANCOVAs on Each Subscale of the Anticipated Sense of Belonging Measure

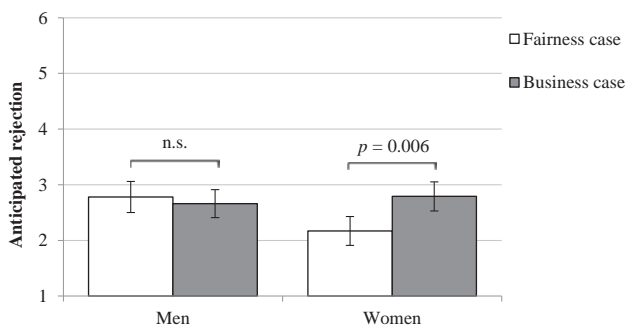
Outcome variable	Predictors	<i>M</i> (<i>SE</i>)	<i>M</i> (<i>SE</i>)	<i>F</i>	<i>p</i>	η^2	90% CI	
							Lower bound	Upper bound
1. Anticipated membership	Condition	BC	FC	1.56	0.21	0.005	0.000	0.024
	Gender	Women	Men	1.62	0.20	0.005	0.000	0.024
	Interaction	4.86 (0.14)	4.73 (0.15)	2.33	0.13	0.007	0.000	0.028
2. Anticipated acceptance	Condition	BC	FC	0.02	0.88	<0.001	0.000	0.005
	Gender	Women	Men	1.31	0.25	0.004	0.000	0.022
	Interaction	5.01 (0.14)	4.89 (0.15)	3.84	0.051	0.011	0.000	0.036
<i>Pairwise comparisons</i>		BC	FC	<i>t</i>	<i>p</i>	Cohen's <i>d</i>	95% CI	
3. Anticipated rejection	Women	4.92 (0.16)	5.10 (0.15)	1.29	0.20	0.20	−0.09	0.48
	Men	5.00 (0.16)	4.79 (0.17)	−1.48	0.14	−0.23	−0.53	0.07
	Interaction	2.72 (0.24)	2.48 (0.24)	2.21	0.14	0.006	0.000	0.028
	Women	2.48 (0.23)	2.72 (0.25)	5.44	0.020	0.016	0.001	0.044
	Men	2.79 (0.26)	2.17 (0.25)	−2.77	0.006	−0.43	−0.71	−0.14
	Men	2.66 (0.26)	2.78 (0.28)	0.55	0.58	0.09	−0.21	0.38

Note. *N* = 371. For ANCOVAs, all between-groups degrees of freedom are equal to 1, and all within-groups degrees of freedom are equal to 344. For pairwise comparisons, all degrees of freedom are equal to 344. BC = business case; FC = fairness case.

organization—specifically, greater anticipated rejection⁸—among female, but not male, job seekers in STEM. These results obtained by comparing another underrepresented group (women seeking jobs in STEM) to a well-represented group (men seeking jobs in STEM) thus provide support for H2 and H5. In addition, supporting H4 and H5, we found that lower anticipated sense of belonging in turn predicted significantly lower desire to join the organization among women, but not men, exposed to the business (vs. fairness) case. Finally, an exploratory analysis provided preliminary support for H3

Figure 3

Significant Interaction of Type of Organizational Diversity Case Condition (Business Case vs. Fairness Case) and Gender (Women vs. Men) on Anticipated Rejection in Study 3, Controlling for Unbalanced Demographic Variables Across Conditions



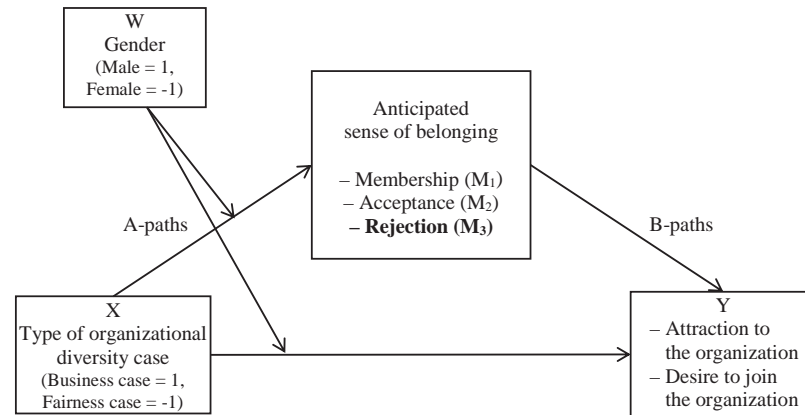
Note. Error bars represent standard errors of the means.

and H5, indicating that among female, but not male, job seekers in STEM, the effects of the business (vs. fairness) case for diversity on anticipated rejection in a prospective organization are driven by greater social identity threat. This study thus provides evidence

⁸ We can only speculate about why the manipulation most strongly affects the rejection facet of anticipated sense of belonging. One explanation may relate to negativity dominance, whereby negative information dominates positive information because it is more attention-grabbing, or is perceived as more diagnostic (Rozin & Royzman, 2001; Unkelbach et al., 2021). In the context of the present work, this may be all the more true among underrepresented group members, since we know from past research that they exhibit a state of vigilance upon entering new contexts, whereby they scan the environment for cues suggesting that they may be at risk of being devalued—that is, negative cues (Cohen & Garcia, 2008; Steele et al., 2002). It is therefore possible that relative to the positively valenced items of the membership and acceptance scales, the negatively valenced items of the rejection subscale are better suited to capture underrepresented group members' perceptions of the negative cues conveyed by the business (vs. fairness, or control) case. Study 6, however, also finds effects on anticipated membership and acceptance. Given the mini meta-analysis shows that organizational diversity cases have a significant effect across studies on overall anticipated sense of belonging, that is, on the score obtained by averaging across the membership, acceptance, and rejection (reversed scored) facets, we do not want to over-interpret the specificity of the rejection subscale. Future research should empirically investigate the specificity of the rejection facet of sense of belonging relative to the membership and acceptance ones. However, in contrast to Good et al. (2012) finding that sense of belonging is a unidimensional (albeit multifaceted) construct, the present findings raise the idea of the multidimensional nature of belonging, and the need for further revalidation of this construct across different populations (e.g., students vs. job seekers vs. employees).

Figure 4

Conditional Indirect Effects Analyses in Study 3, Corresponding to Model 8 in Hayes (2013)



Note. Paths 1, 2, and 3 represent the indirect effects of Type of organizational diversity case (X) on, respectively, Attraction to the organization and Desire to join the organization (Y), through Anticipated membership (M_1 —Path 1), Anticipated acceptance (M_2 —Path 2), and Anticipated rejection (M_3 —Path 3), conditional on Gender (W), and controlling for unbalanced demographic variables across conditions. Bolded subscale represents significant indirect effect.

suggesting that the most prevalent organizational diversity case out there may paradoxically generate threat, thereby undermining anticipated sense of belonging and in turn, predicting lower interest in joining the firm among the very groups that organizations may seek to attract by publicly conveying why they are committed to diversity. A limitation of this study, however, is the absence of a control condition, which precludes us from concluding that the business case *reduces* anticipated sense of belonging—as opposed to the fairness case *increases* it. We address this question about the directionality of the effect in subsequent studies.

Study 4

Study 3 supported our theory that the business (vs. fairness) case uniquely undermines sense of belonging among underrepresented (but not well-represented) groups (H2, H5). Given this, in Study 4, we returned to focusing exclusively on the focal type of groups to which our theorizing applies: underrepresented groups—specifically, women in STEM. First, we sought to clarify the directionality of the effect of type of case on anticipated sense of belonging that we observed in the previous studies. We contend that the business case for diversity *reduces* underrepresented groups' anticipated sense of belonging to organizations—not that the fairness case *increases* it. To test this, we included a control condition. Second, we sought to more fully elucidate the psychological processes by which the business case undermines anticipated sense of belonging among stigmatized group members. In addition to taking a confirmatory approach to replicate social identity threat as a mechanism, we explored the possibility that two categories of possible alternative mechanisms may contribute to the detrimental effects of the business case on underrepresented groups' sense of belonging: psychological concerns related to social identities (identity conflict, sense of being depersonalized, feelings of exploitation) but distinct from social identity threat, as well as shifts in these groups' perceptions of the organization (perceptions of the

organization as externally motivated to control prejudice, and as internally motivated to control prejudice).

Method

Participants

We recruited a panel of 500 American women, currently enrolled in, or having graduated from, a postsecondary education institution (i.e., a minimum of an associates', or incomplete bachelors' degree), and working and/or looking for a job in a STEM industry. The sample size was determined by budget. Through Qualtrics (an online panel company that has a policy to over-sample to account for attrition), we received a sample of 509 American female participants ($M_{\text{age}} = 33.19$, $SD = 11.48$, range = [18; 72]; 346 European Americans, 51 African Americans, 25 Latina/o Americans, 23 East Asian Americans, 7 South-East Asian Americans, 7 South Asian Americans, 3 identified as "Other," 47 identified as Multiracial; 377 employed full-time, 81 employed part-time, 10 unemployed, 41 not currently working [e.g., student, stay-at-home parent, on leave, etc.]; 304 not looking for a job, 205 looking for a job).

Procedure

We used a between-subjects experimental design (Condition: Business case vs. Fairness case vs. Control case). Participants provided informed consent, and then indicated their nationality, gender, age, highest attained education level, current employment status, whether or not they were currently looking for a job, and the industry in which they were looking for a job. Participants meeting the inclusion criteria described above read the same instructions as those used in Study 3, and were then randomly assigned to one of three conditions: business, fairness, or control case.

Table 2
Study 3 Results of the Moderated Mediation Analyses

Outcome variable	Gender	Statistics	Total effect	Indirect effect 1	Index of moderated mediation 1	Indirect effect 2	Index of moderated mediation 2	Indirect effect 3	Index of moderated mediation 3	Direct effect
1. Attraction to the organization	Women	<i>b</i> (SE)	-0.03 (0.11)	-0.004 (0.02)	0.05 (0.04)	-0.03 (0.02)	0.06 (0.03)	-0.01 (0.01)	0.01 (0.01)	0.03 (0.03)
		95% CI	[-0.240; 0.184]	[-0.058; 0.041]	[-0.016; 0.130]	[-0.078; 0.013]	[-0.002; 0.128]	[-0.025; 0.003]	[-0.004; 0.031]	[-0.034; 0.088]
	Men	<i>p</i>	0.80							0.37
		<i>b</i> (SE)	0.14 (0.11)	0.05 (0.02)		0.03 (0.02)		0.002 (0.004)	-0.01 (0.03)	-0.01 (0.03)
2. Desire to join the organization	Women	95% CI	[-0.073; 0.357]	[-0.004; 0.097]		[-0.013; 0.075]		[-0.006; 0.011]		[-0.071; 0.052]
		<i>p</i>	0.20							0.77
	Men	<i>b</i> (SE)	-0.20 (0.17)	-0.005 (0.03)	0.05 (0.04)	-0.01 (0.01)	0.02 (0.03)	-0.09 (0.03)	0.10 (0.05)	0.001 (0.07)
		95% CI	[-0.539; 0.140]	[-0.063; 0.048]	[-0.017; 0.149]	[-0.046; 0.012]	[-0.020; 0.080]	[-0.155; -0.024]	[0.014; 0.203]	[-0.141; 0.145]
		<i>p</i>	0.25							0.98
		<i>b</i> (SE)	0.29 (0.18)	0.05 (0.03)		0.01 (0.02)		0.02 (0.03)		0.07 (0.07)
		95% CI	[-0.051; 0.638]	[-0.0003; 0.116]		[-0.013; 0.047]		[-0.048; 0.085]		[-0.075; 0.211]
		<i>p</i>	0.095							0.35

Note. $N = 371$. Indirect effects 1, 2, and 3 represent the indirect effects of Type of diversity case (X) on each of the dependent variables (Y) through, respectively, $M_1 =$ Anticipated membership, $M_2 =$ Anticipated acceptance, and $M_3 =$ Anticipated rejection, dependent on Gender (W). Covariates = Seriousness of job search, Number of job interviews done, Level of managerial responsibility, Number of subordinates, Political ideology, Current employment status, Type of STEM occupation currently or previously held, Targeted industry for job search, Race, and Native English-speaker status. Confidence intervals (CIs) were computed with the bias-corrected bootstrap method with 10,000 resamples.

Organizational Diversity Case Manipulation

Participants assigned to the business or fairness case conditions read the manipulations described in Study 3. Participants assigned to the control case condition read a statement that conveyed the prospective organization's commitment to diversity, yet did not provide any justification for why:

Diversity and inclusion are part of our company. Behind this focus is a simple but powerful idea: That the world is diverse. In sum, we firmly believe that diversity and inclusion have a place in our organization.

After reading the manipulation, participants completed the measures described below, before responding to an attention check question. Participants who failed to provide the correct answer were routed out of the survey.

Measures

Anticipated Sense of Belonging. Participants completed the anticipated sense of belonging measure used in Study 3 ($\alpha = 0.95$). Consistent with the results of the CFA in Study 3, we again found that the measure of anticipated sense of belonging was multidimensional, such that a model with anticipated membership ($\alpha = 0.94$), acceptance ($\alpha = 0.94$), and rejection ($\alpha = 0.94$) each on separate factors best fitted the data (see SOM). For this reason, analyses of this measure are split by subscale.

Social Identity Threat. Participants completed the same measure as in Study 3 ($\alpha = 0.95$).

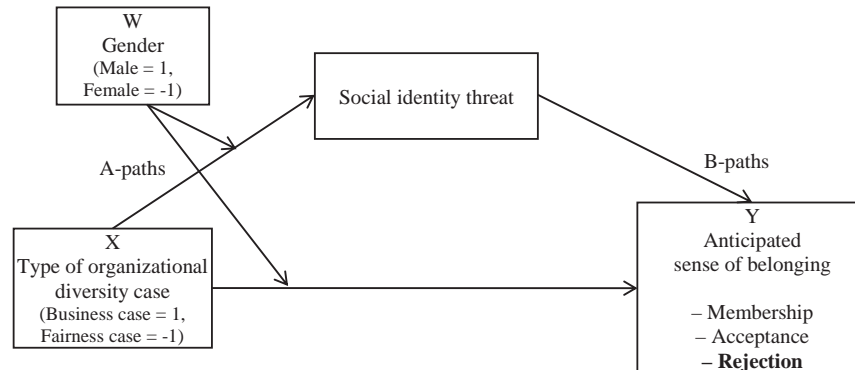
Alternative Processes—Psychological Concerns. We first explored the possibility that other psychological concerns related to social identities, but distinct from social identity threat, may drive the detrimental effects of the business case among underrepresented group members.

Identity Conflict. Because the business case proposes that different groups have different skills, perspectives, and experiences tied to their group memberships (an assumption that is absent from the fairness case), it was possible that relative to the fairness case, the business case would generate a concern among STEM women that organizations may see them as employees who, despite bringing distinct qualities to the organization, may not necessarily have all the qualities traditionally associated with a STEM role. We thus explored the possibility that the business (vs. fairness and control) case may lead STEM women to feel that their social identity may not be seen as fully compatible with their professional identity, that is, that they would experience identity conflict in the prospective organization (e.g., being seen as a "female engineer" rather than an engineer). To explore this, we crafted a face-valid measure of identity conflict (see SOM for full scale). Participants responded to five items measuring the extent to which they anticipated experiencing a conflict between their gender identity and their engineering identity in the prospective organization. A sample item was: "In this organization, I would be seen as less of a 'real' engineer because of my gender." ($\alpha = 0.90$). Participants responded on a scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*.

Sense of Being Depersonalized. The business case's assumption that different groups have different skills, perspectives, and experiences may also appear to STEM women as an indication that the organization perceives all members of a given social group as having relatively similar characteristics, and thus as making similar

Figure 5

Conditional Indirect Effects Analyses in Study 3, Corresponding to Model 8 in Hayes (2013)



Note. The path represents the indirect effect of Type of organizational diversity case (X) on Anticipated membership, Anticipated acceptance, and Anticipated rejection (Y), through Social identity threat (M), conditional on Gender (W), and controlling for unbalanced demographic variables across conditions. Bolded subscale represents significant indirect effect.

contributions to the organization—a depersonalizing experience.⁹ In other words, STEM women exposed to a business case may worry that the organization perceives them as interchangeable with other women. In contrast, because the fairness case does not assume the existence of group-based perspectives and talents, it should not trigger a sense of being depersonalized among women and underrepresented group members. To explore this potential alternative mechanism, participants completed a four-item scale adapted from Siy and Cheryan (2013), which measured the extent to which participants anticipated that the organization would lump them together with other women, without recognizing their individual traits and attributes. A sample item was: “I would be worried that this organization is viewing me as identical to other women” ($\alpha = 0.92$). Participants responded using a scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*.

Feelings of Exploitation. Because the business case uniquely ties diversity to benefits for the organization, we theorized that this instrumental rhetoric may increase STEM women’s concern that the organization would exploit their social identities (i.e., their gender) to its advantage. To explore the possibility, we crafted a face-valid measure of feelings of exploitation for this exploratory investigation of alternative mechanisms (see SOM for full scale). Participants completed four items measuring the extent to which they anticipated that the organization would use their social identity to enhance its reputation around diversity. A sample item was: “I feel that the organization would try to exploit my gender to enhance its reputation with regard to diversity.” ($\alpha = 0.91$). Participants indicated their responses using a scale ranging from 1 = *Strongly disagree* to 6 = *Strongly agree*.

Alternative Processes—Perceptions of the Organization. In addition to psychological concerns, it was possible that the detrimental effects of the business case may stem from a shift in underrepresented groups’ perceptions of the organization. Specifically, because it merely frames diversity as a means to increase the organization’s performance, the business case (relative to the fairness case) may generate perceptions that the organization’s commitment to diversity is not genuine. To address this alternative

possibility, we adapted two well-established measures of individual-level diversity motivation to capture perceptions of organizational genuineness.

Perceptions of the Organization as Externally Motivated to Control Prejudice. To measure the extent to which participants perceived the organization as extrinsically motivated to control prejudice toward underrepresented individuals, participants were asked to complete a five-item scale adapted from Plant and Devine (1998). A sample item was: “I feel this organization attempts to appear non-prejudiced toward underrepresented group members in order to avoid disapproval from people.” ($\alpha = 0.86$). Participants responded using a scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*.

Perceptions of the Organization as Internally Motivated to Control Prejudice. We measured the extent to which participants perceived the organization as intrinsically motivated to control prejudice toward underrepresented individuals using a five-item scale adapted from Plant and Devine (1998). A sample item was: “I feel this organization is motivated by its values to be nonprejudiced toward underrepresented group members.” ($\alpha = 0.76$). Participants responded using a scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*.

Finally, participants provided their demographic information, were paid and debriefed.

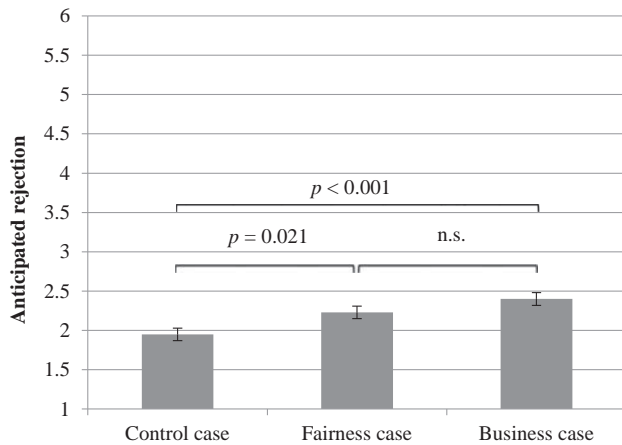
Results

No demographics varied by condition, and therefore as per lab policy, we did not include any covariates in any of our analyses.

⁹ Sense of depersonalization is a distinct type of threat relative to social identity threat. Sense of being depersonalized is a threat to one’s personal identity, whereby one’s personal, individualizing characteristics are dismissed. In contrast, social identity threat is a threat to one’s social identity, whereby one’s valued social group is devalued. Because these threats operate via distinct paths (personal identity vs. social identity), they are definitionally distinct types of threat.

Figure 6

Significant Main Effect of Type of Organizational Diversity Case Condition (Business Case vs. Fairness Case vs. Control Case) on Anticipated Rejection in Study 4



Note. Error bars represent standard errors of the means.

Anticipated Sense of Belonging

We conducted one-way ANOVAs to investigate the effect of condition on each of the facets of the anticipated sense of belonging measure. Replicating findings in Study 3, there was a significant main effect of condition on anticipated rejection ($F(2, 506) = 7.15$, $p < 0.001$, $\eta_p^2 = 0.027$, 90% CI [0.007; 0.053]; see Figure 6). As predicted, pairwise comparisons revealed that STEM women in the business case condition anticipated significantly greater rejection

($M_{\text{Business}} = 2.40$, $SD = 1.18$, 95% CI [2.23; 2.56]), relative to their counterparts in the control condition ($M_{\text{Control}} = 1.95$, $SD = 1.01$, 95% CI [1.79; 2.12], $t(506) = 3.74$, $p < 0.001$, $d = 0.41$, 95% CI [0.19; 0.62]). Unexpectedly however, there was no significant difference between the business and fairness conditions ($M_{\text{Fairness}} = 2.23$, $SD = 1.08$, 95% CI [2.06; 2.39], $t(506) = 1.43$, $p = 0.15$, $d = 0.16$, 95% CI [-0.06; 0.37]). We return to this result in a mini meta-analysis following Study 5. Finally, though we had no specific prediction regarding the comparison between the control and fairness conditions, we found a significant difference in anticipated rejection across these conditions ($t(506) = -2.32$, $p = 0.021$, $d = -0.25$, 95% CI [-0.46; -0.04]).

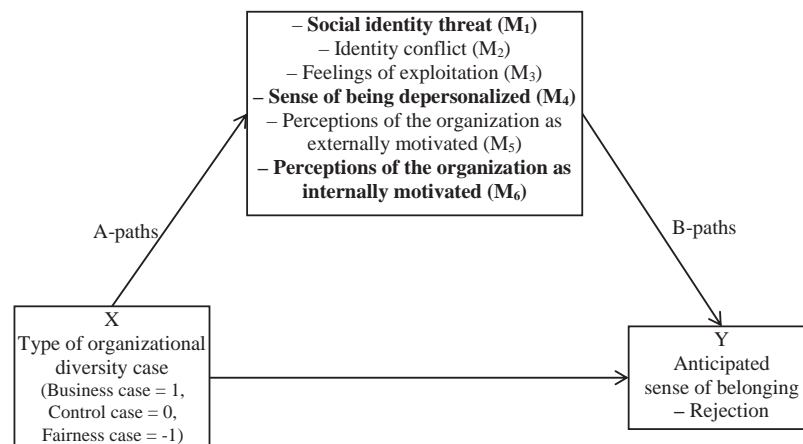
As in Study 3, we found no significant effects of condition on anticipated membership ($F(2, 506) = 1.89$, $p = 0.15$, $\eta_p^2 = 0.007$, 90% CI [0.000; 0.022]), or anticipated acceptance ($F(2, 506) = 2.44$, $p = 0.088$, $\eta_p^2 = 0.010$, 90% CI [0.000; 0.026]). However, the pattern of results documented for anticipated rejection also emerged as significant when analyses were conducted on overall anticipated sense of belonging (only the fairness-control comparison changed). Specifically, women in the business (vs. control, but not fairness) case condition reported significantly lower overall anticipated belonging. Though we had no specific prediction regarding the fairness-control comparison, we found no significant difference in overall anticipated belonging across these two conditions (see SOM).

Indirect Effects

We next tested for indirect effects of type of organizational diversity case (X) on the rejection facet of anticipated sense of belonging (Y), via each of the potential psychological processes (M_i ; Model 4 in Hayes, 2013; see Figure 7). In line with Hayes and Preacher's (2014) recommendations for conducting mediation

Figure 7

Indirect Effects Analyses in Study 4, Corresponding to Model 4 in Hayes (2013)



Note. Paths 1–6 represent the indirect effects of Type of organizational diversity case (X) on Anticipated rejection (Y), through, respectively, Social identity threat (M_1 —Path 1), Identity conflict (M_2 —Path 2), Feelings of exploitation (M_3 —Path 3), Sense of being depersonalized (M_4 —Path 4), Perceptions of the organization as externally motivated (M_5 —Path 5), and Perceptions of the organization as internally motivated (M_6 —Path 6). Bolded mediators represent significant indirect effects.

analyses with categorical independent variables with more than two levels, we declared type of organizational diversity case as a multicategorical variable and effect-coded it to obtain the relevant comparisons. The coefficients reported below are indirect effects and their bias-corrected, bootstrapped 95% CIs, computed with 10,000 resamples using the PROCESS macro in SPSS (Hayes, 2013).

When simultaneously entering all potential mediators in the mediation model, only the indirect effects through social identity threat, sense of being depersonalized, and perceptions of the organization as internally motivated to control prejudice were supported. Table 3 summarizes the results.

Through Social Identity Threat. As predicted and supporting H3, when comparing the business case to the control and fairness case conditions, there were significant indirect effects of type of diversity case on anticipated rejection, through heightened social identity threat (business vs. control: $b = 0.16$, $SE = 0.05$, 95% CI [0.067; 0.260]; business vs. fairness: $b = 0.08$, $SE = 0.04$, 95% CI [0.002; 0.174]). As predicted, women in STEM exposed to a business (vs. control or fairness) case anticipated significantly greater social identity threat, which in turn predicted greater anticipated rejection in the organization. Finally, though we had no specific predictions regarding the control-fairness comparison, an indirect effect was also significant when comparing these two conditions ($b = 0.08$, $SE = 0.04$, 95% CI [0.004; 0.164]). However, it should be noted that the associated effect size was half the size of the indirect effect obtained when comparing the business case to the control condition, suggesting that the fairness case generates social identity threat to a smaller extent than the business case for diversity.

Through Sense of Being Depersonalized. When comparing the business case to the control and fairness case conditions, there were significant indirect effects of type of diversity case on anticipated rejection through a sense of being depersonalized (business vs. control: $b = 0.12$, $SE = 0.05$, 95% CI [0.037; 0.225]; business vs. fairness: $b = 0.07$, $SE = 0.04$, 95% CI [0.010; 0.153]). Specifically, women in STEM exposed to a business (vs. control or fairness) case anticipated to a significantly greater extent being seen by the organization as interchangeable with other women, which in turn predicted greater anticipated rejection in the organization. Though we had no specific predictions regarding the control-fairness comparison, this indirect effect was not significant when comparing these two conditions ($b = 0.05$, $SE = 0.03$, 95% CI [-0.007; 0.126]), indicating that the business case uniquely triggers a sense of being depersonalized that in turn increased anticipated rejection in the organization.

Through Perceptions of the Organization as Internally Motivated to Control Prejudice. When comparing the business case to the control and fairness case conditions, there were significant indirect effects of type of diversity case on anticipated rejection through perceptions of the organization as internally motivated to control prejudice (business vs. control: $b = 0.07$, $SE = 0.03$, 95% CI [0.008; 0.145]; business vs. fairness: $b = 0.06$, $SE = 0.03$, 95% CI [0.001; 0.135]). Women in STEM exposed to a business (vs. control or fairness) case perceived the organization as significantly less internally motivated to control prejudice, which in turn predicted greater anticipated rejection in the organization. Though we had no specific predictions regarding the control-fairness comparison, this indirect effect was not significant when comparing these two conditions ($b = 0.01$, $SE = 0.03$, 95% CI [-0.054; 0.073]),

Table 3
Study 4 Results of the Mediations Analyses

Outcome variable	Comparison	Statistics	Total effect	Indirect effect 1	Indirect effect 2	Indirect effect 3	Indirect effect 4	Indirect effect 5	Indirect effect 6	Direct effect
Anticipated sense of belonging—Rejection	Business vs. Control	b (SE)	0.44 (0.12)	0.16 (0.05)	0.001 (0.03)	-0.01 (0.03)	0.12 (0.05)	0.0003 (0.01)	0.07 (0.03)	0.11 (0.09)
		95% CI	[0.211; 0.678]	[0.070; 0.264]	[-0.056; 0.052]	[-0.072; 0.049]	[0.037; 0.229]	[-0.015; 0.018]	[0.010; 0.144]	[-0.079; 0.291]
	Business vs. Fairness	p	<0.001	0.08 (0.04)	0.001 (0.02)	-0.01 (0.02)	0.07 (0.04)	<0.0001 (0.01)	0.06 (0.03)	0.26
		95% CI	[-0.064; 0.404]	[0.003; 0.174]	[-0.036; 0.039]	[-0.047; 0.028]	[0.011; 0.155]	[-0.011; 0.014]	[0.001; 0.136]	[-0.04 (0.09)
	Fairness vs. Control	b (SE)	0.17 (0.12)	0.076 (0.04)	0.0003 (0.01)	-0.005 (0.01)	0.05 (0.03)	0.0003 (0.01)	0.01 (0.03)	0.14 (0.09)
		95% CI	[0.042; 0.507]	[0.005; 0.164]	[-0.028; 0.023]	[-0.036; 0.025]	[-0.005; 0.126]	[-0.017; 0.018]	[-0.055; 0.071]	[-0.037; 0.323]
		p	0.021							0.69

Note. $N = 509$. Indirect effects 1–6 represent the indirect effects of Type of diversity case (X) on Anticipated rejection (Y) through, respectively, M_1 = Social identity threat, M_2 = Identity conflict, M_3 = Feelings of exploitation, M_4 = Sense of being depersonalized, M_5 = Perceptions of the organization as externally motivated, and M_6 = Perceptions of the organization as internally motivated. Confidence intervals (CIs) were computed with the bias-corrected bootstrap method with 10,000 resamples.

suggesting that the business case uniquely decreases perceptions of the organization as intrinsically motivated, thus increasing anticipated rejection in the organization.

Discussion

By including a control condition, Study 4 provides direct causal evidence that the business case *increases* anticipated rejection among underrepresented groups (instead of the fairness case lowering it), thereby supporting H2. We note that while the control case is limited in its external validity (by definition, “neutral” cases for diversity rarely exist in the real world), its value lies in its internal validity, which helps us address the question of the directionality of the effect. The present study also further specifies the mechanisms by which the business case triggers this detrimental effect on belonging. Replicating findings in Study 3, and as predicted by H3, social identity threat remained a significant mediator of this effect, even after controlling for alternative processes, and was the strongest mechanism (as revealed by a comparison of standardized indirect effects). Showing the value of fully exploring alternative mechanisms, we found evidence that another identity-based concern (a sense of being depersonalized), as well as perceptions of the organization’s genuineness (measured through perceptions of the organization’s internal motivation to control prejudice) also contribute to the negative effect of the business (vs. fairness and control) case on anticipated sense of belonging.

Unexpectedly, the comparison between the business and fairness case on anticipated sense of belonging in this study yielded a nonsignificant effect. To address this, we conducted a mini meta-analysis (following Study 6) to evaluate the reliability and magnitude of this effect.

We also found another unexpected result: Relative to the control case, the fairness case also increased social identity threat, and thus reduced sense of belonging among STEM women. While we did not make predictions about the effects of the fairness case relative to a control case and accordingly report these pairwise comparisons as exploratory, these findings suggest that the fairness case might generate social identity threat. Yet, we note that the size of its indirect effect on anticipated belonging through social identity threat was only half as large as that of the business case relative to the control case—supporting our theorizing that the fairness case minimizes social identity threat relative to the business case, because it lacks instrumentality. This finding also suggests that any justification for why diversity matters to a given organization may induce social identity-based concerns among underrepresented groups. This finding has great relevance to the important question of what organizations *should* say when explaining their commitment to diversity, which we return to in the general discussion.

Study 5

Study 5 has three goals. First, we aimed to test whether the findings of Studies 2–4 would replicate among a racially stigmatized and underrepresented group: African American students in higher education. Our theory posits that the effects should replicate among members of racial minority groups. Recent work, however, has suggested that diversity messages may have different consequences for White women versus racial minority group members (Martin, 2018; Wilton et al., 2015). Such divergences could be interpreted as

stemming from African Americans’ unique history of stigma—one marked not only by devaluation of their social identity, but also by dehumanization (Goff et al., 2008). To this day, racial bias, discrimination and negative stereotyping still endure, despite the passing of antidiscrimination laws still in the wake of the civil rights movement (Bowman Williams, 2017; Goff et al., 2008; Ratliff et al., 2020). For these reasons, it is possible that the effects of the organizational diversity cases documented among LGBTQ+ in Study 2 and among women in STEM in Studies 3–4 may differ among African Americans. However, we theorized that precisely because African Americans have historically been stigmatized, they would exhibit vigilance for environmental cues conveying a risk that they may be devalued on the basis of their racial identity, and exhibit the comparable effects to those documented in previous studies. Our second goal was to test the replicability of the alternative mechanisms described in the previous study. Our third goal was to test H2, H3, and H4 together, capturing the theorized full, multistep process by which the business case undermines interest in joining an organization, serially through social identity threat and anticipated sense of belonging. Hypotheses were preregistered on OSF (see SOM for link to anonymized preregistration).

Method

Participants

We used a G*Power analysis (Faul et al., 2007) to determine the required sample size to test the hypotheses listed above. Given we did not know whether the effect of condition on sense of belonging that would emerge (if any) could be expected to be of a comparable size to those found among LGBTQ+ individuals or STEM women, we conservatively estimated the sample size required to detect a small main effect ($\eta^2 = 0.020$), with three conditions (numerator $df = 2$), an α of 0.05, and a power level at 80%. On that basis, G*Power recommended a sample of 475 participants.

Through the survey panel company Qualtrics, we thus recruited a sample of 480 African American students in higher education ($M_{age} = 28.94$, $SD = 9.49$, range = [18; 61]; 162 men, 318 women; 177 employed full-time, 153 employed part-time, 150 not currently working; 217 not looking for a job, 263 looking for a job).

Procedure

We used a between-subjects experimental design (Condition: Business case vs. Fairness case vs. Control case). Participants provided informed consent, and then indicated their gender, race, student status, highest attained education level, and nationality. Participants meeting the inclusion criteria of identifying as female or male, being African American, being currently a student and having an education level strictly above high school (i.e., a minimum of an associates’, or incomplete bachelors’ degree) read:

Imagine that you would like to get a job in your preferred industry. Your school has told you that it may take a couple of months to find a job. Therefore, they have advised you to start your job search now. While looking for positions, you come across a company that has some potentially attractive openings. As you read over their website, you come across the following statement.

Participants were then randomly assigned to one of three conditions: business case, fairness case, or control.

Organizational Diversity Case Manipulation

Participants were randomly assigned to the business or fairness case conditions from Study 3, or the control case condition from Study 4. After reading the manipulation, participants completed the measures described below, before responding to an attention check question. Participants who failed to provide the correct answer were routed out of the survey.

Measures

Participants completed the same measures as those used in Studies 3 and 4: anticipated sense of belonging, with its membership ($\alpha = 0.91$), acceptance ($\alpha = 0.93$), and rejection ($\alpha = 0.96$) facets, attraction to the organization ($\alpha = 0.91$), desire to join the organization ($\alpha = 0.85$), social identity threat ($\alpha = 0.91$), feelings of exploitation ($\alpha = 0.89$), sense of being depersonalized ($\alpha = 0.93$), perceptions of the organization as externally motivated ($\alpha = 0.86$), and as internally motivated ($\alpha = 0.66$)¹⁰ to control prejudice. The only difference was that the identity conflict measure used in Study 4 was not included in the present study, as it could not appropriately be adapted to the context of race.

Consistent with the confirmatory factor analyses conducted in Studies 3 and 4, the CFA in Study 5 showed that anticipated sense of belonging was multidimensional, such that a three-factor model—with anticipated membership, acceptance, and rejection each on separate factors—fitted the data best (see SOM). For this reason, we once again present the results on this measure split by subscale.

Results

To ensure that the core assumption of baseline comparability across cells in experimental designs is valid (Fives et al., 2013), we controlled for the demographic characteristics that varied across conditions despite random assignment to conditions (Gender; see SOM), as per our lab policy and the preregistered analysis plan. The pattern and interpretation of results remain unchanged with no controls.

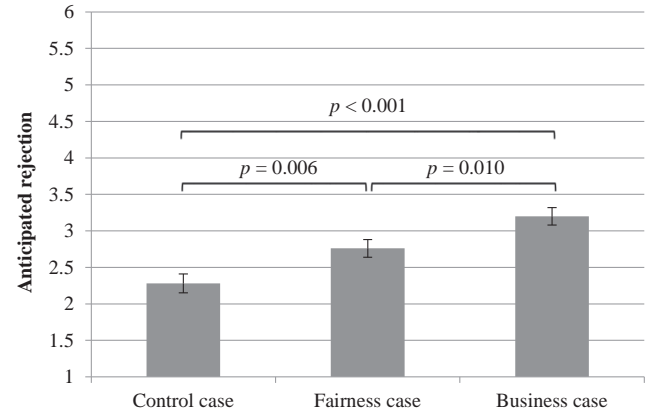
Anticipated Sense of Belonging

We conducted one-way ANCOVAs to investigate the effect of condition on each of the facets of the anticipated sense of belonging measure, controlling for gender. As predicted and supporting H2, there was a significant effect of condition on anticipated rejection ($F(2, 476) = 13.89, p < 0.001, \eta_p^2 = 0.055, 90\% \text{ CI } [0.025; 0.089]$; see Figure 8). Pairwise comparisons revealed that African Americans randomly assigned to the business case condition anticipated significantly greater rejection ($M_{\text{Business}} = 3.20, SE = 0.12, 95\% \text{ CI } [2.97; 3.44]$), compared to their counterparts in the control case condition ($M_{\text{Control}} = 2.28, SE = 0.13, 95\% \text{ CI } [2.03; 2.53], t(476) = 5.27, p < 0.001, d = 0.60, 95\% \text{ CI } [0.38; 0.83]$) and in the fairness case condition ($M_{\text{Fairness}} = 2.76, SE = 0.12, 95\% \text{ CI } [2.52; 3.00], t(476) = 2.60, p = 0.010, d = 0.29, 95\% \text{ CI } [0.07; 0.51]$). Finally, though we had no specific prediction regarding the comparison between the control and fairness conditions, there was also a significant difference in anticipated rejection between these two conditions ($t(476) = -2.77, p = 0.006, d = -0.31, 95\% \text{ CI } [-0.53; -0.09]$).

Consistent with results in Studies 3 and 4, we found no significant effects of condition on anticipated membership ($F(2, 476) = 1.61,$

Figure 8

Significant Main Effect of Type of Organizational Diversity Case Condition (Business Case vs. Fairness Case vs. Control Case) on Anticipated Rejection in Study 5, Controlling for Unbalanced Demographic Variables Across Conditions



Note. Error bars represent standard errors of the means.

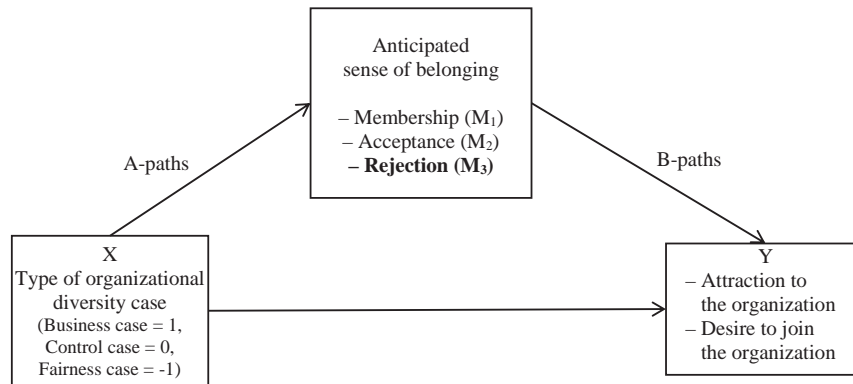
$p = 0.20, \eta_p^2 = 0.007, 90\% \text{ CI } [0.000; 0.021]$) or on anticipated acceptance ($F(2, 476) = 0.99, p = 0.37, \eta_p^2 = 0.004, 90\% \text{ CI } [0.000; 0.016]$). However, we note that the pattern of results documented for anticipated rejection also emerged as significant when analyses were conducted on overall sense of belonging (only the fairness-control comparison changed). Specifically, African Americans in the business (vs. fairness, and control) case condition reported significantly lower overall anticipated sense of belonging. Though we had no specific prediction regarding the fairness-control comparison, we found no significant difference in overall belonging across these two conditions (see SOM).

Indirect Effects

As in Study 4, in each of the analyses reported below, we declared type of organizational diversity case as a multicategorical variable, and effect-coded it to produce the relevant comparisons. To ensure all results presented in the following analyses are robust, we also controlled for gender, which varied across conditions despite random assignment to conditions, and we effect-coded it (Female = -1; Male = 1). The coefficients reported below are indirect effects and their bias-corrected, bootstrapped 95% CIs, computed with 10,000 resamples using the PROCESS macro in SPSS (Hayes, 2013).

Through Anticipated Sense of Belonging. We tested for indirect effects of type of organizational diversity case (X) on each of the outcome variables measured (Y), via the three facets of anticipated sense of belonging: membership (M_1), acceptance (M_2), and rejection (M_3), (H4; Model 4 in Hayes, 2013; see Figure 9), and controlling for the same demographic variable as above.

¹⁰ In this study, the second, reverse-scored item of this scale appeared to be unreliable, as removing it substantially increased the reliability of the overall scale (from $\alpha = 0.66$ to $\alpha = 0.83$). Yet, given this scale has been validated (Plant & Devine, 1998), it would not have been considered good practice to drop the item in question without validating the shortened scale (Hinkin, 1995; Schriesheim et al., 1993). We therefore computed the aggregate score as originally intended by Plant and Devine (1998).

Figure 9*Indirect Effects Analyses in Study 5, Corresponding to Model 4 in Hayes (2013)*

Note. Paths 1, 2, and 3 represent the indirect effects of Type of organizational diversity case (X) on, respectively, Attraction to the organization and Desire to join the organization (Y), through Anticipated membership (M_1 —Path 1), Anticipated acceptance (M_2 —Path 2), and Anticipated rejection (M_3 —Path 3), controlling for unbalanced demographic variables across conditions. Bolded subscale represents significant indirect effect.

Table 4 summarizes the results. The indirect effects through the membership and acceptance facets of anticipated sense of belonging were not supported for either outcome variable. Thus, we only describe in detail below the indirect effects through the rejection facet of anticipated sense of belonging.

Attraction to the Organization. Unexpectedly, the indirect effect of type of diversity case on attraction to the organization, through anticipated rejection, was not supported when comparing the business case to the control and fairness case conditions (business vs. control: $b = -0.03$, $SE = 0.02$, 95% CI $[-0.080; 0.004]$; business vs. fairness: $b = -0.02$, $SE = 0.01$, 95% CI $[-0.045; 0.003]$). Neither was there a significant indirect effect when comparing the fairness case to the control case condition ($b = -0.02$, $SE = 0.01$, 95% CI $[-0.047; 0.002]$).

Desire to Join the Organization. Supporting H4 and as predicted, when comparing the business case to the control and fairness case conditions, there were significant indirect effects of type of diversity case on desire to join the organization, through anticipated rejection (business vs. control: $b = -0.25$, $SE = 0.06$, 95% CI $[-0.369; -0.143]$; business vs. fairness: $b = -0.12$, $SE = 0.05$, 95% CI $[-0.227; -0.023]$). Replicating and extending the previous findings, African Americans exposed to a business (vs. fairness, or control) case anticipated significantly greater rejection in the organization, which in turn predicted lower desire to join the organization. Though we had no specific predictions regarding the control-fairness comparison, the indirect effect was also significant when comparing the fairness condition to the control condition ($b = -0.13$, $SE = 0.05$, 95% CI $[-0.229; -0.042]$). However, as with the previous findings, the associated effect size was about half the size of the indirect effect obtained when comparing the business case to the control condition, suggesting that the fairness case undermines desire to join organizations to a smaller extent than the business case for diversity.

Through Social Identity Threat and Alternative Mechanisms. We next tested for indirect effects of Type of organizational diversity case (X) on the Rejection facet of Anticipated sense of

belonging (Y), via each of the potential psychological processes (M_i) entered simultaneously (Model 4 in Hayes, 2013; see Figure 10), and controlling for the same demographic variables as above.

Only the indirect effects through social identity threat and sense of being depersonalized were supported (see summarized results in Table 5).

Social Identity Threat. Supporting H3 and replicating the findings of Study 4, when comparing the business case to the control and fairness case conditions, there was a significant indirect effect of type of diversity case on anticipated rejection, through heightened social identity threat business vs. control: $b = 0.30$, $SE = 0.08$, 95% CI $[0.156; 0.478]$; business vs. fairness: $b = 0.18$, $SE = 0.07$, 95% CI $[0.059; 0.326]$). Consistent with our predictions, African Americans exposed to a business (vs. control or fairness) case anticipated significantly greater social identity threat, which in turn predicted greater anticipated rejection in the organization. Though we had no specific predictions regarding the control-fairness comparison, the indirect effect was also significant when comparing these two conditions ($b = 0.12$, $SE = 0.06$, 95% CI $[0.021; 0.248]$), but as before with less than half the effect size of the indirect effect obtained when comparing the business case condition versus control.

Sense of Being Depersonalized. Replicating findings in Study 4, when comparing the business case to the control and fairness case conditions, there were significant indirect effects of type of diversity case on anticipated rejection, through a sense of being depersonalized (business vs. control: $b = 0.20$, $SE = 0.08$, 95% CI $[0.068; 0.364]$; business vs. fairness: $b = 0.14$, $SE = 0.06$, 95% CI $[0.029; 0.270]$). Specifically, African Americans exposed to a business (vs. control or fairness) case anticipated being seen by the organization as interchangeable with other African Americans significantly more, which in turn predicted greater anticipated rejection in the organization. This indirect effect was not significant when comparing the fairness condition to the control condition ($b = 0.06$, $SE = 0.05$, 95% CI $[-0.027; 0.176]$), indicating that replicating Study 4, the business case uniquely triggered a sense of being depersonalized that in turn increased anticipated rejection in the organization.

Table 4
Study 5 Results of the Mediations Analyses

Outcome variable	Comparison	Statistics	Total effect	Indirect effect 1	Indirect effect 2	Indirect effect 3	Direct effect
1. Attraction to the organization	Business vs. Control	<i>b</i> (<i>SE</i>)	−0.12 (0.10)	−0.06 (0.05)	−0.04 (0.04)	−0.03 (0.02)	0.01 (0.07)
		95% CI	[−0.330; 0.081]	[−0.155; 0.033]	[−0.118; 0.025]	[−0.080; 0.004]	[−0.132; 0.153]
	Business vs. Fairness	<i>p</i>	0.23				0.88
		<i>b</i> (<i>SE</i>)	−0.13 (0.10)	−0.08 (0.05)	−0.04 (0.04)	−0.02 (0.01)	0.0003 (0.07)
2. Desire to join the organization	Fairness vs. Control	95% CI	[−0.333; 0.071]	[−0.178; 0.017]	[−0.114; 0.028]	[−0.045; 0.003]	[−0.137; 0.138]
		<i>p</i>	0.20				1.00
	Business vs. Control	<i>b</i> (<i>SE</i>)	0.01 (0.10)	0.02 (0.04)	−0.003 (0.03)	−0.02 (0.01)	0.01 (0.07)
		95% CI	[−0.195; 0.208]	[−0.059; 0.099]	[−0.066; 0.057]	[−0.047; 0.002]	[−0.127; 0.148]
3. Desire to join the organization	Business vs. Fairness	<i>p</i>	0.95				0.88
		<i>b</i> (<i>SE</i>)	−0.41 (0.14)	−0.07 (0.06)	−0.03 (0.03)	−0.25 (0.06)	−0.07 (0.11)
	Fairness vs. Control	95% CI	[−0.694; −0.135]	[−0.189; 0.038]	[−0.094; 0.019]	[−0.369; −0.143]	[−0.281; 0.139]
		<i>p</i>	0.004				0.50
4. Desire to join the organization	Business vs. Fairness	<i>b</i> (<i>SE</i>)	−0.27 (0.14)	−0.09 (0.06)	−0.03 (0.03)	−0.12 (0.05)	−0.04 (0.10)
		95% CI	[−0.542; 0.007]	[−0.222; 0.015]	[−0.092; 0.021]	[−0.227; −0.023]	[−0.237; 0.167]
	Fairness vs. Control	<i>p</i>	0.06				0.73
		<i>b</i> (<i>SE</i>)	−0.15 (0.14)	0.02 (0.05)	−0.002 (0.02)	−0.13 (0.05)	−0.04 (0.10)
5. Desire to join the organization	Fairness vs. Control	95% CI	[−0.421; 0.127]	[−0.067; 0.115]	[−0.048; 0.047]	[−0.229; −0.042]	[−0.238; 0.166]
		<i>p</i>	0.29				0.73

Note. $N = 480$. Indirect effects 1, 2, and 3 represent the indirect effects of Type of diversity case (X) on each of the outcome variables (Y) through, respectively, $M_1 =$ Anticipated membership, $M_2 =$ Anticipated acceptance, and $M_3 =$ Anticipated rejection. Covariate = Gender. Confidence intervals (CIs) were computed with the bias-corrected bootstrap method with 10,000 resamples.

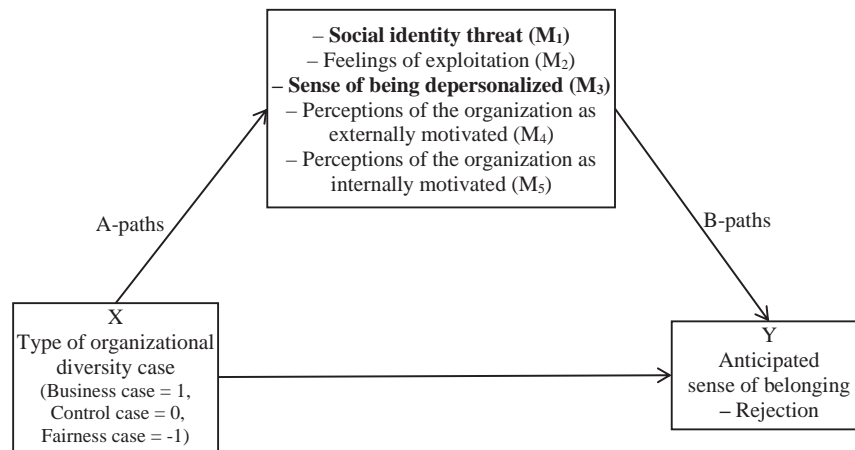
Serial Indirect Effects Through Social Identity Threat and Anticipated Sense of Belonging. Finally, given the support for H2, H3, and H4 in this study, we tested our preregistered prediction that there would be a serial indirect effect of Type of organizational diversity case (X) through Social identity threat (M_1) to the Rejection facet of Anticipated sense of belonging (M_2), on each of the outcomes (Y ; Model 6 in Hayes, 2013; see Figure 11), and controlling for the same demographic variables as above.

Attraction to the Organization. As predicted, when comparing the business case to the control and fairness case conditions, there was a significant serial indirect effect of type of diversity case on attraction to the organization, through social identity threat and the rejection facet of anticipated sense of belonging (business vs. control: $b = -0.08$, $SE = 0.03$, 95% CI $[-0.134; -0.035]$; business vs. fairness: $b = -0.05$, $SE = 0.02$, 95% CI $[-0.090; -0.014]$). Specifically, African Americans randomly assigned to read a business case reported significantly greater social identity threat compared to their counterparts in the control case or fairness case conditions, which in turn predicted greater anticipated rejection, and in turn, lower attraction to the organization. Though we had no specific predictions regarding the control-fairness comparison, this serial indirect effect was also significant when comparing these two conditions ($b = -0.03$, $SE = 0.02$, 95% CI $[-0.067; -0.006]$), such that participants in the fairness case condition reported significantly greater social identity threat compared to their counterparts in the control case condition, which predicted greater anticipated rejection, and in turn, lower desire to join the organization. However, as with the previous findings, the associated effect size was about half the size of the indirect effect obtained when comparing the business case to the control condition, suggesting that the fairness case undermines desire to join organizations to a smaller extent than the business case for diversity.

Desire to Join the Organization. When comparing the business case to the control and fairness case conditions, the predicted serial indirect effect of type of diversity case on desire to join the organization, through social identity threat and the rejection facet of anticipated sense of belonging was significant (business vs. control: $b = -0.15$, $SE = 0.04$, 95% CI $[-0.239; -0.087]$; business vs. fairness: $b = -0.09$, $SE = 0.03$, 95% CI $[-0.162; -0.033]$). Specifically, African Americans randomly assigned to read a business case reported significantly greater social identity threat compared to their counterparts in the control case or fairness case conditions, which in turn predicted greater anticipated rejection, and in turn, lower desire to join the organization. Though we had no specific predictions regarding the control-fairness comparison, the corresponding serial indirect effect was also significant when comparing these two conditions ($b = -0.06$, $SE = 0.03$, 95% CI $[-0.127; -0.012]$), such that participants in the fairness case condition reported significantly greater social identity threat compared to their counterparts in the control case condition, which in turn predicted greater anticipated rejection, and in turn, lower desire to join the organization. However, as with the previous findings, the associated effect size was about half the size of the indirect effect obtained when comparing the business case to the control condition, suggesting that the fairness case undermines desire to join organizations to a smaller extent than the business case for diversity.

Discussion

Study 5 provides evidence that the detrimental effects of the business case for diversity replicate among a racial minority group.

Figure 10*Indirect Effects Analyses in Study 5, Corresponding to Model 4 in Hayes (2013)*

Note. Paths 1–5 represent the indirect effects of Type of organizational diversity case (X) on Anticipated rejection (Y), through Social identity threat (M_1 —Path 1), Feelings of exploitation (M_2 —Path 2), Sense of being depersonalized (M_3 —Path 3), Perceptions of the organization as externally motivated (M_4 —Path 4), and Perceptions of the organization as internally motivated (M_5 —Path 5), controlling for unbalanced demographic variables across conditions. Bolded mediators represent significant indirect effects.

The various psychological mechanisms underlying the negative effects of the business case on African Americans were similar to those set in motion among women in STEM: greater social identity threat, and greater sense of being depersonalized. As predicted, social identity threat was a significant mechanism even after controlling for alternative processes, and was the strongest mediator (as revealed by a comparison of standardized indirect effects). The effect of lower perceptions of the organization as internally motivated to control prejudice did not emerge as a mediator here, which may be due to the low reliability of the measure.

Finally, the present study also unexpectedly corroborates the exploratory finding that the fairness case increases social identity threat relative to a control case, thereby reducing sense of belonging among African Americans. The size of this effect, as before, was about half as large as that of the business case relative to the control case. In addition, relative to the control case, the fairness case did not produce any sense of being depersonalized. This consistency across the previous and present study suggests that while not harmless, the lack of instrumentality in the fairness case serves to minimize social identity threat relative to the business case. This finding has important implications for how organizations should talk about diversity. Both existing justifications induce social identity threat among underrepresented groups, though the fairness case is a less harmful form of justification compared to the business case for diversity. These results alternatively suggest that simply stating one's commitment to diversity as a fact, which does not call for justifications, could be a viable avenue for organizations.

Study 6

Study 6 has three goals. First, compared to the earlier studies, we sought to test whether a minimal manipulation of the business case (vs. fairness, and control)—just three sentences, without the

more elaborate, real-world rationales previously provided—would have similar effects as those documented in the earlier studies. Second, we sought to test the replicability of Study 5's findings that the business (vs. fairness, or control) case undermines anticipated sense of belonging among African Americans, that this effect would be driven (in part) by social identity threat, and that in turn, this would predict lower interest in joining the organization. Third and finally, we sought to test H5 and show that this detrimental process would be specific to minority groups, and would not generalize to White Americans—a majority group. Indeed, classic social identity threat theory suggests that because members of majority and well-represented groups do not typically have to worry about being devalued based on their group memberships (Adams et al., 2006), they generally do not exhibit vigilance for social identity-relevant cues in their environment (G. L. Cohen & Garcia, 2008; Steele et al., 2002). Accordingly, we predicted that White Americans would not similarly be affected by the type of organizational diversity case that they would read. Hypotheses were preregistered on OSF (see SOM for link to anonymized preregistration).

Method

Participants

To replicate the findings documented in Study 5 among African Americans, and test our prediction that they would not generalize to White Americans, we doubled the sample size used in Study 5, with a 50/50 quota on race. Through Qualtrics (an online panel company that has a policy to over-sample to account for attrition), we thus recruited a sample of 1,019 White and African American students in, or recent graduates from, higher education ($M_{\text{age}} = 25.30$, $SD = 7.10$, range = [18; 62]; 514 Whites, 505 African Americans;

Table 5
Study 5 Results of the Mediations Analyses

Outcome variable	Comparison	Statistics	Total effect	Indirect effect 1	Indirect effect 2	Indirect effect 3	Indirect effect 4	Indirect effect 5	Direct effect
Anticipated sense of belonging—Rejection	Business vs. Control	<i>b</i> (SE)	0.92 (0.17)	0.30 (0.08)	0.01 (0.05)	0.20 (0.08)	−0.01 (0.04)	0.02 (0.02)	0.41 (0.15)
		95% CI	[0.577; 1.264]	[0.153; 0.483]	[−0.083; 0.108]	[0.070; 0.366]	[−0.096; 0.069]	[−0.017; 0.058]	[0.115; 0.702]
		<i>p</i>	<0.001						0.007
Business vs. Fairness	Business vs. Fairness	<i>b</i> (SE)	0.45 (0.17)	0.18 (0.07)	0.01 (0.05)	0.14 (0.06)	−0.01 (0.05)	0.004 (0.02)	0.14 (0.15)
		95% CI	[0.109; 0.783]	[0.058; 0.323]	[−0.078; 0.109]	[0.027; 0.277]	[−0.113; 0.079]	[−0.032; 0.040]	[−0.152; 0.422]
		<i>p</i>	0.010						0.36
Fairness vs. Control	Fairness vs. Control	<i>b</i> (SE)	0.47 (0.17)	0.12 (0.06)	0.0001 (0.01)	0.06 (0.05)	0.002 (0.01)	0.01 (0.02)	0.27 (0.14)
		95% CI	[0.138; 0.811]	[0.024; 0.248]	[−0.025; 0.020]	[−0.024; 0.173]	[−0.025; 0.035]	[−0.019; 0.051]	[−0.009; 0.555]
		<i>p</i>	0.006						0.06

Note. $N = 480$. Indirect effects 1–6 represent the indirect effects of Type of diversity case (X) on Anticipated rejection (Y) through, respectively, $M_1 =$ Social identity threat, $M_2 =$ Identity conflict, $M_3 =$ Feelings of exploitation, $M_4 =$ Sense of being depersonalized, $M_5 =$ Perceptions of the organization as externally motivated, and $M_6 =$ Perceptions of the organization as internally motivated. Confidence intervals (CIs) were computed with the bias-corrected bootstrap method with 10,000 resamples. Covariate = Gender.

504 men, 515 women; 247 employed full-time, 327 employed part-time, 445 not currently working; 492 not looking for a job, 527 looking for a job).

Procedure

We used a 3 (Condition: Business case vs. Fairness case vs. Control case) \times 2 (Race: African American vs. White) between-subjects experimental design. Participants indicated their age, nationality, gender, race, student status, and pursued or attained education level. Participants meeting the inclusion criteria of being at least 18 years-old, US American, identifying as female or male, identifying as non-Hispanic White or non-Hispanic African American, being currently a student or having graduated at the end of the previous academic year, and currently pursuing or having recently obtained an education level strictly above high school (i.e., a minimum of an associates', or incomplete bachelors' degree) were allowed to participate in the study. After providing informed consent, they read:

Imagine that you would like to get a job in your preferred industry. Your school's career center has advised you that it may take a couple of months to find a job. Therefore, you have started your job search now. While looking for positions, you come across a company that has some potentially attractive openings. As you read over their website, you come across the following statement.

Organizational Diversity Case Manipulation

Next, participants were presented with the screenshot of a webpage purportedly found on the corporate website of a company called Invocorp.¹¹ The webpage showed a standard corporate stock photo of a Black man interacting with a White woman (see Figure S5 in SOM), as well as a diversity case. Participants were randomly assigned to read a [business, *fairness*, or *control*] case for diversity:

Diversity and inclusion are part of our company's [commitment to performance/*commitment to equality/commitment*]. Behind this focus is a simple but powerful idea: That diversity simply [makes good business sense/*is the right thing to do/is all around us*]. In sum, we firmly believe that diversity and inclusion [can help our organization to achieve superior performance/*can help our organization to achieve equal opportunity for all/have a place in our organization*].

Participants were then presented with the screenshot of a second webpage, which contained another stock photo of hands seemingly belonging to different racial and gender groups (see SOM), as well as a two-sentence repetition of the diversity case that they had previously read:

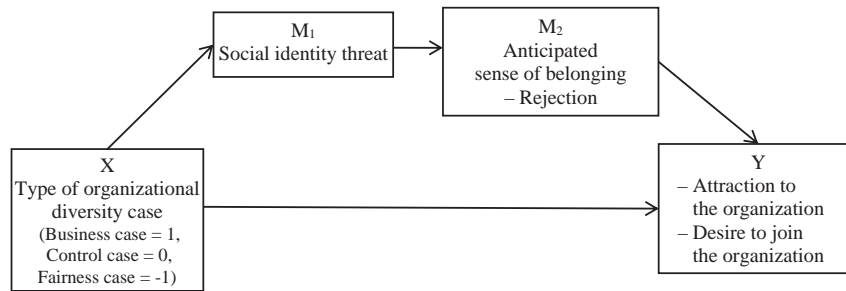
Ultimately, diversity simply [makes good business sense/*is the right thing to do/is all around us*]. We firmly believe that diversity and inclusion [can help our organization to achieve superior performance/*can help our organization to achieve equal opportunity for all/have a place in our organization*].

After reading the manipulation, participants completed the measures described below, before responding to an attention check question. Participants who failed to provide the correct answer were routed out of the survey, and excluded from the dataset.

¹¹ The name of this fictional organization was taken from Wilton, Sanchez, et al. (2019).

Figure 11

Serial Indirect Effects Analyses in Study 5, Corresponding to Model 6 in Hayes (2013)



Note. The path represents the indirect effect of Type of organizational diversity case (X) on, respectively, Attraction to the organization and Desire to join the organization (Y), serially through Social identity threat (M_1) and Anticipated rejection (M_2), controlling for unbalanced demographic variables across conditions.

Measures

Participants completed the same measures as those used in Studies 3–5: anticipated sense of belonging, with its membership ($\alpha = 0.93$), acceptance ($\alpha = 0.95$), and rejection ($\alpha = 0.95$) facets, attraction to the organization ($\alpha = 0.93$), and desire to join the organization ($\alpha = 0.85$). They also completed measures of the three mediators that were supported in Studies 4–5: social identity threat ($\alpha = 0.93$), sense of being depersonalized ($\alpha = 0.94$), and perceptions of the organization as internally motivated to control prejudice ($\alpha = 0.75$).

Consistent with the confirmatory factor analyses conducted in Studies 3–5, the CFA in Study 6 showed that anticipated sense of belonging was multidimensional, such that a three-factor model—with anticipated membership, acceptance, and rejection each on separate factors—fitted the data best (see SOM). For this reason, we once again present the results on this measure split by subscale.

Results

As per our lab policy and preregistered analysis plan, to ensure that the core assumption of baseline comparability across cells in experimental designs is valid (Fives et al., 2013), and that the results for the interaction effects and pairwise comparisons below would not be confounded with background characteristics, we controlled in all our analyses for the demographic characteristics that varied across conditions despite random assignment (Age, Gender, Student status), as well as for demographic characteristics that varied across racial groups (Student status, Education level, Field of study, Current employment status, Job seeker status; see SOM). All results obtained using controls remain significant without controls.

Anticipated Sense of Belonging

To test H2 and H5, we conducted two-way ANCOVAs to investigate the interaction effect of Condition \times Race on each of the three facets of the anticipated sense of belonging measure, controlling for demographic variables listed above. No significant Condition \times Race interactions emerged on any of the three facets of anticipated sense of belonging (on membership: $F(2, 997) = 1.87$,

$p = 0.15$, $\eta_p^2 = 0.004$, 90% CI [0.000; 0.011]; on acceptance: $F(2, 997) = 2.76$, $p = 0.064$, $\eta_p^2 = 0.005$, 90% CI [0.000; 0.014]; on rejection: $F(2, 997) = 0.16$, $p = 0.85$, $\eta_p^2 < 0.001$, 90% CI [0.000; 0.002]; see Figure 12), which we discuss in the Study discussion. However, in line with recommendations that hypothesis-driven comparisons be tested irrespective of the significance of the interaction (Castañeda et al., 1993; Ruxton & Beauchamp, 2008), we conducted simple effects analyses, which we report below.

African American Participants.

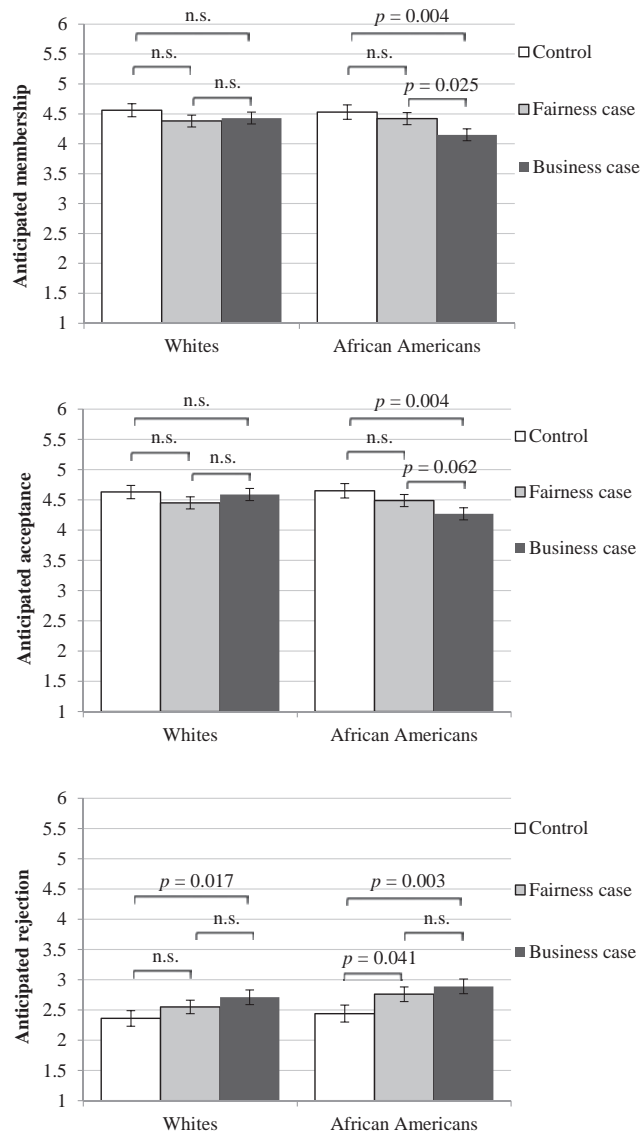
Anticipated Membership. Supporting H2, there was a significant effect of condition among African Americans, whereby those who had been randomly assigned to the business case condition anticipated feeling significantly less like members of the organization ($M_{\text{Business}} = 4.15$, $SE = 0.10$, 95% CI [3.94; 4.35]) relative to their counterparts in the control condition ($M_{\text{Control}} = 4.53$, $SE = 0.12$, 95% CI [4.29; 4.77], $t(997) = -2.87$, $p = 0.004$, $d = -0.33$, 95% CI [-0.56; -0.10]) and in the fairness case condition ($M_{\text{Fairness}} = 4.42$, $SE = 0.10$, 95% CI [4.22; 4.62], $t(997) = -2.25$, $p = 0.025$, $d = -0.23$, 95% CI [-0.44; -0.03]). There was no significant difference in anticipated membership between the control and fairness conditions ($t(997) = 0.83$, $p = 0.41$, $d = 0.10$, 95% CI [-0.13; 0.32]).

Anticipated Acceptance. Supporting H2, there was a significant effect of condition among African Americans, such that those who had been randomly assigned to the business case condition anticipated feeling significantly less accepted in the organization ($M_{\text{Business}} = 4.27$, $SE = 0.10$, 95% CI [4.06; 4.47]) relative to their counterparts in the control case condition ($M_{\text{Control}} = 4.65$, $SE = 0.12$, 95% CI [4.41; 4.89], $t(997) = -2.87$, $p = 0.004$, $d = -0.33$, 95% CI [-0.56; -0.10]). Participants in the business case condition also anticipated feeling marginally less accepted relative to their counterparts in the fairness case conditions ($M_{\text{Fairness}} = 4.49$, $SE = 0.10$, 95% CI [4.29; 4.69], $t(997) = -1.87$, $p = 0.062$, $d = -0.19$, 95% CI [-0.40; 0.01]). Finally, there was no significant difference in anticipated acceptance between the control and fairness conditions ($t(997) = 1.17$, $p = 0.24$, $d = 0.14$, 95% CI [-0.09; 0.36]).

Anticipated Rejection. Supporting H2, there was a significant effect of condition among African Americans, whereby those who had been randomly assigned to the business case condition anticipated significantly greater rejection in the organization

Figure 12

Simple Effects Analysis of the Effect of Type of Organizational Diversity Case Condition (Business Case vs. Fairness Case vs. Control Case) \times Race (White vs. African American) on Each Facet of Anticipated Belonging in Study 6, Controlling for Unbalanced Demographic Variables Across Conditions and Racial Groups



Note. Error bars represent standard errors of the means.

($M_{\text{Business}} = 2.89$, $SE = 0.12$, 95% CI [2.66; 3.13]) relative to their counterparts in the control case condition ($M_{\text{Control}} = 2.44$, $SE = 0.14$, 95% CI [2.17; 2.71], $t(997) = 2.97$, $p = 0.003$, $d = 0.34$, 95% CI [0.12; 0.57]). Unexpectedly, no significant difference in African Americans' anticipated rejection across the business and fairness case conditions emerged ($M_{\text{Fairness}} = 2.76$, $SE = 0.12$, 95% CI [2.53; 2.99], $t(997) = 0.99$, $p = 0.32$, $d = 0.10$, 95% CI [-0.10; 0.30]). Finally, though we had no specific prediction regarding the control-fairness comparison, there was also a significant difference in anticipated rejection between these two conditions ($t(997) = -2.05$, $p = 0.041$, $d = -0.24$, 95% CI [-0.47; -0.01]).

We note that the pattern of results documented for anticipated membership, acceptance, and rejection also emerged as significant when analyses were conducted on overall sense of belonging. Specifically, African Americans in the business (vs. fairness, and control) case condition reported significantly lower overall anticipated sense of belonging (see SOM for results). Though we had no specific prediction regarding the control-fairness comparison, there was no significant difference in anticipated belonging between these two conditions (see SOM).

White American Participants. As predicted by H5, among Whites, there were no significant differences in anticipated membership or anticipated acceptance across the business case-control, business case-fairness case, and fairness case-control conditions.

Yet, there was an unexpected significant effect of condition on anticipated rejection, whereby White participants who had been randomly assigned to the business case condition anticipated significantly greater rejection in the organization ($M_{\text{Business}} = 2.71$, $SE = 0.12$, 95% CI [2.48; 2.94]) than their counterparts in the control condition ($M_{\text{Control}} = 2.35$, $SE = 0.13$, 95% CI [2.10; 2.60], $t(997) = 2.39$, $p = 0.017$, $d = 0.27$, 95% CI [0.05; 0.50]). There were no significant differences across the business and fairness conditions ($M_{\text{Fairness}} = 2.55$, $SE = 0.11$, 95% CI [2.33; 2.76], $t(997) = 1.17$, $p = 0.24$, $d = 0.12$, 95% CI [-0.08; 0.33]), or between the fairness and control conditions ($t(997) = -1.38$, $p = 0.17$, $d = -0.15$, 95% CI [-0.36; 0.06]).

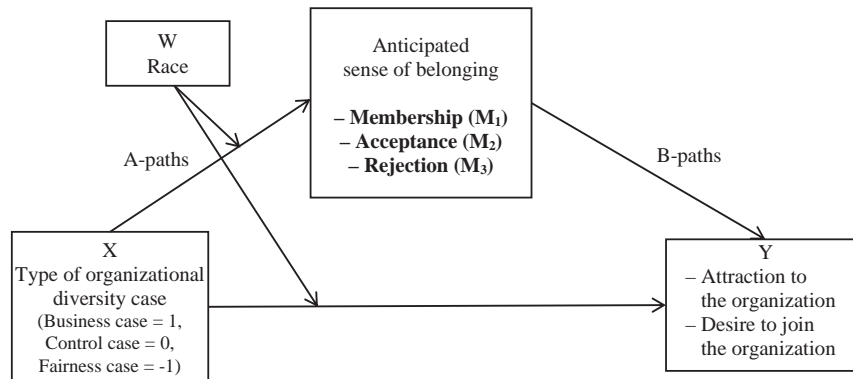
Unlike African Americans however, the pattern of results documented for anticipated rejection did not hold when the same analyses were conducted on overall anticipated sense of belonging. Specifically, among White Americans, there was no significant difference in overall sense of belonging across the business case and control, business and fairness case, or the fairness case and control conditions (see SOM).

Conditional Indirect Effects

As in Studies 4 and 5, in each of the analyses reported below, we declared type of organizational diversity case as a multicategorical variable, and effect-coded it to produce the relevant comparisons. We also effect-coded Race (White = -1; African American = 1). To ensure all results presented in the following analyses are robust, we controlled for all demographic variables described above. The coefficients reported below are indirect effects and their bias-corrected, bootstrapped 95% CIs, computed with 10,000 resamples using the PROCESS macro in SPSS (Hayes, 2013).

Through Anticipated Sense of Belonging. To test H4 and H5, we tested for indirect effects of type of organizational diversity case (X) on each of the outcome variables measured (Y), via the three facets of anticipated sense of belonging: membership (M_1), acceptance (M_2), and rejection (M_3) (H4; Model 8 in Hayes, 2013; see Figure 13), and controlling for the same demographic variable as above.

Table 6 summarizes the results. In contrast to Studies 3–5, among African Americans, all three facets of anticipated sense of belonging (not rejection only) were significant mechanisms of the indirect effects of type of diversity case on attraction to, and desire to join, the organization. Thus, we describe in detail below the indirect effects through each facet of anticipated sense of belonging. We note that none of the indirect effect analyses below had a significant index of moderated mediation, which we discuss in the Study discussion.

Figure 13*Conditional Indirect Effects Analyses in Study 6, Corresponding to Model 8 in Hayes (2013)*

Note. Paths 1, 2, and 3 represent the indirect effects of Type of organizational diversity case (X) on, respectively, Attraction to the organization and Desire to join the organization (Y), through Anticipated membership (M_1 —Path 1), Anticipated acceptance (M_2 —Path 2), and Anticipated rejection (M_3 —Path 3), conditional on Race (W), and controlling for unbalanced demographic variables across conditions. Bolded subscale represents significant indirect effect.

African American Participants.

Attraction to the Organization. As predicted by H4, when comparing the business case to the control condition among African Americans, we found significant indirect effects of type of diversity case on attraction to the organization through all three facets of sense of belonging (via membership: $b = -0.10$, $SE = 0.04$, 95% CI $[-0.202; -0.027]$; via acceptance: $b = -0.10$, $SE = 0.04$, 95% CI $[-0.195; -0.028]$; via rejection: $b = -0.04$, $SE = 0.02$, 95% CI $[-0.076; -0.008]$). In other words, relative to their counterparts in the control condition, African Americans in the business condition anticipated feeling significantly less like members, less accepted, and more rejected in the organization, which in turn predicted lower attraction to the organization. Also supporting H4, when comparing the business case to the fairness case condition, we found a significant indirect effect on attraction to the organization, specifically through anticipated membership ($b = -0.07$, $SE = 0.04$, 95% CI $[-0.153; -0.003]$), such that African Americans in the business (vs. fairness) case condition anticipated feeling significantly less like members of the organization, which in turn predicted lower attraction to the organization. Finally, though we had no specific prediction regarding the control-fairness comparison, there was also a significant indirect effect through anticipated rejection when comparing these two conditions ($b = -0.03$, $SE = 0.01$, 95% CI $[-0.060; -0.003]$), such that African Americans in the fairness case (vs. control) condition anticipated feeling significantly more rejected in the organization, which in turn predicted lower attraction to the organization.

Desire to Join the Organization. The same pattern of significant indirect effects emerged with desire to join the organization as the outcome variable—only stronger in effect size. As predicted by H4, when comparing the business case to the control condition among African Americans, we found significant indirect effect of type of diversity case on desire to join the organization through all three facets of sense of belonging (via membership: $b = -0.14$, $SE = 0.06$, 95% CI $[-0.262; -0.034]$; via acceptance: $b = -0.10$, $SE = 0.05$, 95% CI $[-0.207; -0.023]$; via rejection: $b = -0.11$, $SE = 0.04$,

95% CI $[-0.190; -0.033]$). Specifically, relative to their counterparts in the control condition, African Americans in the business condition anticipated feeling significantly less like members, less accepted, and more rejected in the organization, which in turn predicted lower desire to join it. Also supporting H4, when comparing the business case to the fairness case condition, there was also a significant indirect effect of type of diversity case on attraction to the organization, specifically through anticipated membership ($b = -0.10$, $SE = 0.05$, 95% CI $[-0.202; -0.006]$), such that African Americans in the business (vs. fairness) case condition anticipated feeling significantly less like members of the organization, which in turn predicted lower desire to join the organization. Finally, though we had no specific prediction regarding the control-fairness comparison, there was also a significant indirect effect through anticipated rejection when comparing these two conditions ($b = -0.08$, $SE = 0.04$, 95% CI $[-0.152; -0.010]$), such that African Americans in the fairness case (vs. control) condition anticipated feeling significantly more rejected in the organization, which in turn predicted lower desire to join it.

White American Participants. Among Whites, when comparing the business case-fairness case, or fairness case-control conditions, there were no significant indirect effect of type of diversity case on attraction to the organization or desire to join the organization, whether through anticipated membership, acceptance, or rejection. However, when comparing the business case to the control condition, we unexpectedly found a significant indirect effect of type of diversity case on attraction to the organization, ($b = -0.03$, $SE = 0.01$, 95% CI $[-0.062; -0.005]$), and on desire to join the organization ($b = -0.09$, $SE = 0.03$, 95% CI $[-0.155; -0.020]$), through anticipated rejection specifically. In other words, Whites in the business case (vs. control) condition anticipated feeling significantly more rejected in the organization, which in turn predicted lower attraction to, and desire to join, the organization.

Through Social Identity Threat and Alternative Mechanisms. To test H3 and H5, we next tested for indirect effects of type of

Table 6*Study 6 Results of the Moderated Mediations Analyses*

Comparison	Race	Statistics	Total effect	Indirect effect 1	Indirect effect 2	Indirect effect 3	Direct effect
Outcome variable: Attraction to the organization							
Business vs. Control	African Americans	<i>b</i> (SE)	−0.29 (0.11)	−0.10 (0.04)	−0.10 (0.04)	−0.04 (0.02)	−0.05 (0.08)
		95% CI	[−0.505; −0.074]	[−0.202; −0.027]	[−0.195; −0.028]	[−0.076; −0.008]	[−0.205; 0.111]
		<i>p</i>	0.009				0.56
	Whites	<i>b</i> (SE)	−0.06 (0.11)	−0.03 (0.03)	−0.01 (0.03)	−0.03 (0.01)	0.02 (0.08)
		95% CI	[−0.271; 0.158]	[−0.100; 0.027]	[−0.074; 0.053]	[−0.062; −0.005]	[−0.141; 0.173]
		<i>p</i>	0.61				0.84
Business vs. Fairness	African Americans	<i>b</i> (SE)	−0.14 (0.10)	−0.07 (0.04)	−0.06 (0.04)	−0.01 (0.01)	0.001 (0.07)
		95% CI	[−0.336; 0.052]	[−0.153; −0.003]	[−0.140; 0.009]	[−0.039; 0.014]	[−0.141; 0.142]
		<i>p</i>	0.15				0.99
	Whites	<i>b</i> (SE)	0.10 (0.10)	0.01 (0.03)	0.04 (0.03)	−0.01 (0.01)	0.07 (0.07)
		95% CI	[−0.092; 0.302]	[−0.050; 0.081]	[−0.023; 0.110]	[−0.040; 0.010]	[−0.078; 0.210]
		<i>p</i>	0.30				0.37
Fairness vs. Control	African Americans	<i>b</i> (SE)	−0.15 (0.11)	−0.03 (0.04)	−0.04 (0.03)	−0.03 (0.01)	−0.05 (0.08)
		95% CI	[−0.366; 0.071]	[−0.106; 0.033]	[−0.118; 0.020]	[−0.060; −0.003]	[−0.208; 0.112]
		<i>p</i>	0.19				0.56
	Whites	<i>b</i> (SE)	−0.16 (0.10)	−0.05 (0.03)	−0.05 (0.03)	−0.02 (0.01)	−0.05 (0.08)
		95% CI	[−0.366; 0.044]	[−0.118; 0.014]	[−0.123; 0.015]	[−0.045; 0.006]	[−0.199; 0.100]
		<i>p</i>	0.12				0.52
Outcome variable: Desire to join the organization							
Business vs. Control	African Americans	<i>b</i> (SE)	−0.43 (0.14)	−0.14 (0.06)	−0.10 (0.05)	−0.11 (0.04)	−0.09 (0.10)
		95% CI	[−0.702; −0.160]	[−0.262; −0.034]	[−0.207; −0.023]	[−0.190; −0.033]	[−0.276; 0.100]
		<i>p</i>	0.002				0.36
	Whites	<i>b</i> (SE)	−0.07 (0.14)	−0.05 (0.04)	−0.01 (0.03)	−0.09 (0.03)	0.07 (0.09)
		95% CI	[−0.339; 0.201]	[−0.135; 0.034]	[−0.074; 0.053]	[−0.155; −0.020]	[−0.116; 0.257]
		<i>p</i>	0.62				0.46
Business vs. Fairness	African Americans	<i>b</i> (SE)	−0.22 (0.12)	−0.10 (0.05)	−0.06 (0.04)	−0.03 (0.04)	−0.04 (0.09)
		95% CI	[−0.467; 0.021]	[−0.202; −0.006]	[−0.145; 0.008]	[−0.102; 0.042]	[−0.207; 0.130]
		<i>p</i>	0.074				0.65
	Whites	<i>b</i> (SE)	0.01 (0.13)	0.02 (0.04)	0.04 (0.03)	−0.04 (0.03)	−0.01 (0.09)
		95% CI	[−0.236; 0.256]	[−0.067; 0.101]	[−0.023; 0.112]	[−0.105; 0.028]	[−0.177; 0.165]
		<i>p</i>	0.93				0.95
Fairness vs. Control	African Americans	<i>b</i> (SE)	−0.21 (0.14)	−0.04 (0.05)	−0.04 (0.04)	−0.08 (0.04)	−0.05 (0.10)
		95% CI	[−0.483; 0.067]	[−0.137; 0.046]	[−0.123; 0.020]	[−0.152; −0.010]	[−0.239; 0.140]
		<i>p</i>	0.14				0.61
	Whites	<i>b</i> (SE)	−0.08 (0.13)	−0.06 (0.04)	−0.05 (0.04)	−0.05 (0.03)	0.08 (0.09)
		95% CI	[−0.338; 0.178]	[−0.153; 0.019]	[−0.127; 0.014]	[−0.113; 0.015]	[−0.102; 0.254]
		<i>p</i>	0.54				0.40

Note. $N = 1,019$. Indirect effects 1, 2, and 3 represent the indirect effects of Type of diversity case (X) on each of the outcome variables (Y) through, respectively, M_1 = Anticipated membership, M_2 = Anticipated acceptance, and M_3 = Anticipated rejection, dependent on Race (W). Covariate = Age, Gender, Student status, Education level, Field of study, Current employment status, Job seeker status. Confidence intervals (CIs) were computed with the bias-corrected bootstrap method with 10,000 resamples. Bolded cells represent significant indirect effects.

organizational diversity case (X) on each facet of anticipated sense of belonging (Y), via each of the potential psychological processes (M_i) entered simultaneously, conditional on Race (W ; Model 8 in Hayes, 2013; see Figure 14), and controlling for the same demographic variables as above. We note that none of the indirect effect analyses below had a significant index of moderated mediation, which we discuss in the study discussion.

African American Participants.

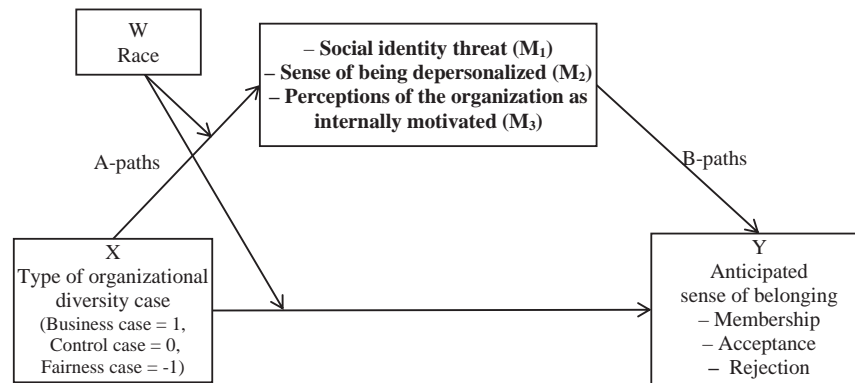
Social Identity Threat. There were no significant indirect effects of type of diversity case on anticipated membership or acceptance, through social identity threat. However, supporting H3 and replicating the findings of Studies 4 and 5, when comparing the business case to the control condition among African American participants, we found a significant indirect effect of type of diversity case on anticipated rejection, through heightened social identity threat ($b = 0.12$, $SE = 0.05$, 95% CI [0.030; 0.229]). Specifically, African Americans exposed to a business (vs. control) case anticipated significantly greater social identity threat, which in

turn predicted greater anticipated rejection in the organization. Unexpectedly, this indirect effect was not significant when comparing the business to the fairness condition ($b = 0.07$, $SE = 0.04$, 95% CI [−0.016; 0.155]). Finally, though we had no specific predictions regarding the control-fairness comparison, this indirect effect was not significant when comparing these two conditions ($b = 0.05$, $SE = 0.05$, 95% CI [−0.032; 0.150]).

Sense of Being Depersonalized. Consistent with findings in Studies 4 and 5, when comparing the business case to the control condition among African American participants, there was a significant indirect effect of type of diversity case on the membership, acceptance, and rejection facets of anticipated sense of belonging, through a heightened sense of being depersonalized (on membership: $b = -0.07$, $SE = 0.03$, 95% CI [−0.147; −0.022]; on acceptance: $b = -0.09$, $SE = 0.03$, 95% CI [−0.160; −0.028]; on rejection: $b = 0.09$, $SE = 0.04$, 95% CI [0.027; 0.167]). Specifically, African Americans exposed to a business (vs. control) case anticipated significantly more being seen by the organization as interchangeable with other African

Figure 14

Conditional Indirect Effects Analyses in Study 6, Corresponding to Model 8 in Hayes (2013)



Note. Paths 1–5 represent the indirect effects of Type of organizational diversity case (X) on each facet of Anticipated sense of belonging (Y), through Social identity threat (M_1 —Path 1), Sense of being depersonalized (M_2 —Path 2), and perceptions of the organization as internally motivated (M_3 —Path 3), conditional on Race (W), and controlling for unbalanced demographic variables across conditions. Bolded mediators represent significant indirect effects.

Americans, which in turn predicted lower anticipated membership and acceptance, as well as greater anticipated rejection in the organization. In contrast to Studies 4 and 5, however, these indirect effects were not significant when comparing the business case to the fairness case condition (on membership: $b = -0.02$, $SE = 0.02$, 95% CI $[-0.074; 0.024]$; on acceptance: $b = -0.02$, $SE = 0.03$, 95% CI $[-0.081; 0.029]$; on rejection: $b = 0.02$, $SE = 0.03$, 95% CI $[-0.028; 0.083]$). Finally, though we had no specific predictions regarding the control-fairness comparison, these indirect effects were significant when comparing the fairness case to the control condition (on membership: $b = -0.05$, $SE = 0.03$, 95% CI $[-0.117; -0.007]$; on acceptance: $b = -0.06$, $SE = 0.03$, 95% CI $[-0.129; -0.009]$; on rejection: $b = 0.06$, $SE = 0.03$, 95% CI $[0.009; 0.136]$).

Perceptions of the Organization as Internally Motivated. Consistent with Study 4, when comparing the business case to the control condition among African American participants, we found a significant indirect effect of type of diversity case on anticipated membership, acceptance, and rejection, through lower perceptions of the organization as internally motivated about diversity (on membership: $b = -0.11$, $SE = 0.05$, 95% CI $[-0.224; -0.010]$; on acceptance: $b = -0.12$, $SE = 0.06$, 95% CI $[-0.234; -0.016]$; on rejection: $b = 0.07$, $SE = 0.03$, 95% CI $[0.007; 0.143]$). Specifically, African Americans exposed to a business (vs. control) case perceived the organization as significantly less internally motivated about diversity, which in turn predicted lower anticipated membership and acceptance, as well as greater anticipated rejection in the organization. In contrast to Study 4, however, these indirect effects were not significant when comparing the business case to the fairness case condition (on membership: $b = -0.02$, $SE = 0.05$, 95% CI $[-0.118; 0.071]$; on acceptance: $b = -0.02$, $SE = 0.05$, 95% CI $[-0.123; 0.072]$; on rejection: $b = 0.01$, $SE = 0.03$, 95% CI $[-0.043; 0.075]$). Though we had no specific predictions regarding the control-fairness comparison, these effects were not significant either when comparing the fairness case to the control condition (on membership: $b = -0.09$, $SE = 0.05$, 95% CI $[-0.199;$

$0.012]$; on acceptance: $b = -0.09$, $SE = 0.05$, 95% CI $[-0.204; 0.009]$; on rejection: $b = 0.05$, $SE = 0.03$, 95% CI $[-0.006; 0.124]$).

White American Participants.

Social Identity Threat. There were no significant indirect effects of type of diversity case on anticipated membership or acceptance, through social identity threat. However, when comparing the business case to the fairness and control conditions among White participants, we unexpectedly found significant indirect effects of type of diversity case on anticipated rejection, through heightened social identity threat (business vs. control: $b = 0.15$, $SE = 0.05$, 95% CI $[0.062; 0.262]$; business vs. fairness: $b = 0.10$, $SE = 0.05$, 95% CI $[0.019; 0.202]$). This indirect effect was not significant when comparing the fairness case to the control condition ($b = 0.05$, $SE = 0.04$, 95% CI $[-0.029; 0.135]$).

Sense of Being Depersonalized. When comparing the business case to the control condition, we also found a significant indirect effect of type of diversity case on anticipated membership, acceptance, and rejection, through a heightened sense of being depersonalized (on membership: $b = -0.07$, $SE = 0.03$, 95% CI $[-0.140; -0.019]$; on acceptance: $b = -0.09$, $SE = 0.03$, 95% CI $[-0.160; -0.029]$; on rejection: $b = 0.08$, $SE = 0.04$, 95% CI $[0.021; 0.164]$). There were no such significant indirect effects when comparing the business case to the fairness case condition, and the fairness case to the control condition.

Perceptions of the Organization as Internally Motivated. Among Whites, we did not find any significant indirect effect of type of diversity case on any of the facets of anticipated sense of belonging through perceptions of the organization as internally motivated about diversity.

Serial Indirect Effects Through Social Identity Threat and Anticipated Sense of Belonging. Finally, we tested our prediction that there would be a serial indirect effect of Type of organizational diversity case (X) through Social identity threat (M_1) to each facet of Anticipated sense of belonging (M_{2s}), on each of the

outcomes (Y ; Model 86 in Hayes, 2013; see Figure S4 in SOM), and controlling for the same demographic variables as above. We report these results in full in the SOM.

Discussion

Study 6 provides evidence that relative to a fairness case and a control case, the business case undermines African Americans' anticipated sense of belonging—and across all three facets—thus supporting H2, and offering a second confirmatory replication of Study 5's finding that the business case for diversity undermines anticipated sense of belonging among members of racial minority groups. Supporting H4, this undermined anticipated sense of belonging in turn predicted lower interest in joining the organization. Moreover, Study 6 again found support for H3 and the hypothesized mediating effect of social identity threat on anticipated belonging—specifically on its rejection facet—thus replicating and extending findings in Studies 4–5. While Study 6 also confirmed the role of alternative mechanisms (sense of being depersonalized, and perceptions of the organization as internally motivated) in driving the detrimental effects of instrumental diversity rhetoric on anticipated rejection, the indirect effect through social identity threat was significant among African Americans even after controlling for alternative mechanisms, and had the strongest effect size of all. This support for H3, however, was only partial, because the comparison of the indirect effects of the business and fairness case on anticipated sense of belonging, through social identity threat, did not reach significance—suggesting, in line with Studies 4 and 5, that the fairness case can also trigger some social identity threat among underrepresented group members.

Finally, we did not find support for H5. Although as predicted, White Americans' anticipated membership, acceptance—and overall sense of belonging—were unaffected by the manipulation, White participants in the business (vs. control) case condition anticipated significantly greater rejection in the organization—an effect driven by social identity threat and sense of being depersonalized. In turn, this greater anticipated rejection predicted lower interest in joining the organization.¹² Study 6 thus found detrimental effects of the business case for diversity among both African Americans and Whites, and there was no evidence that these respective effects were significantly different from each other, since Condition \times Race effects and indices of moderated mediation for indirect effects were nonsignificant.

Why did we not find significant moderation by participant race? It is important for us to acknowledge that in most cases, testing an interaction requires a greater number of participants per cell than testing simple effects. In Study 6, our choice to double the total sample size used in Study 5 preserved an 80% power level for detecting simple effects of Condition among African Americans and Whites, respectively, but only provided a 51% power level for detecting the Condition \times Race interaction we predicted (Simonsohn, 2015). Recent insights into power calculations indeed argue that testing a “knock-out” interaction such as the one we predicted (whereby African Americans show an effect, whereas Whites do not) requires multiplying the total sample size used in Study 5 by at least four (not two, as we did; Giner-Sorolla, 2018; Simonsohn, 2015)—meaning recruiting close to 2,000 (instead of 1,019) participants in our case. A sample of this size was unfortunately beyond our funding means. Given Study 6 was

only well-powered to detect simple effects, the null Condition \times Race interaction effects should only be interpreted with caution, and should *not* be considered as evidence that organizational diversity cases affect African Americans and Whites in similar ways (Simonsohn, 2015). If future research were to replicate this null effect consistently, across multiple studies of large samples ($N = 2,000+$), then the results could point to some interesting possibilities, which we discuss further in the General Discussion section.

Mini Meta-Analysis

A main thesis of the present research is that exposure to a business case (relative to a fairness case or control case) would undermine anticipated sense of belonging to the organization among stigmatized and underrepresented group members. This prediction was supported in all studies except for Studies 4 and 6, in which there was not a significant difference in anticipated rejection when comparing the business and fairness conditions. For such cases, mini meta-analyses have emerged as a valued method in social psychology for estimating the reliability and average effect size for a direct effect across studies (Goh et al., 2016; no established method yet exists for indirect effects).

We thus conducted a mini meta-analysis to evaluate the causal effect, among underrepresented groups, of our manipulation (business vs. fairness case) on the core outcome of interest for the four experiments: anticipated sense of belonging. The analysis used fixed effects in which the mean effect size was weighted by sample size. The mini-meta-estimated effect on anticipated rejection ($M_d = 0.22$, $Z = 3.78$, 95% CI [0.10; 0.33], $p < 0.001$), two-tailed, and on overall anticipated sense of belonging ($M_d = 0.23$, $Z = 4.39$, 95% CI [0.13; 0.34], $p < 0.001$, two-tailed) were both significant, thus supporting H2. We conducted the same mini meta-analysis testing the causal effect of the manipulation (business vs. control case) on anticipated sense of belonging in the two experiments in which the control condition was included. The mini-meta-estimated effect on anticipated rejection subscale ($M_d = 0.45$, $Z = 6.89$, 95% CI [0.32; 0.58], $p < 0.001$, two-tailed), and on overall anticipated sense of belonging ($M_d = 0.38$, $Z = 5.88$, 95% CI [0.26; 0.51], $p < 0.001$, two-tailed) were also both significant. Taken together, these results provide evidence that a business (vs. fairness, or control) case exerts a small to moderate, and reliable effect that specifically increases anticipated rejection, and generally undermines anticipated sense of belonging to the organization making this case.

Though we did not have any hypothesis with regard to the consequences of the fairness case relative to the control case, a mini meta-analysis testing the causal effect of the manipulation (fairness vs. control case) on anticipated sense of belonging in the last two experiments revealed that the mini-meta-estimated effect on the rejection subscale ($M_d = 0.27$, $Z = 4.11$, 95% CI [0.14; 0.39], $p < 0.001$, two-tailed), and on overall anticipated sense of belonging ($M_d = 0.18$, $Z = 2.73$, 95% CI [0.05; 0.30], $p = 0.006$, two-tailed) were both significant. These results provide evidence that a fairness (vs. control) case exerts a smaller, but reliable effect that specifically increases anticipated rejection, and generally undermines anticipated sense of belonging to the organization making this case. It is interesting to note, however, that the detrimental effects of the fairness (vs. control) case are consistently weaker than those of the business (vs. control) case—sometimes about twice as weak (see Studies 4–5)—thus suggesting that the fairness case

¹² These results hold when controlling for political ideology.

is a less threatening organizational diversity case than the business case for underrepresented groups.

Finally, we conducted a mini meta-analysis across Studies 3 and 6 to evaluate the causal effect of our manipulation (business vs. fairness case) on belonging among well-represented groups.¹³ The mini-meta-estimated effect on anticipated rejection ($M_d = 0.05$, $Z = 0.60$, 95% CI $[-0.12; 0.22]$, $p = 0.96$, two-tailed), and on overall anticipated sense of belonging ($M_d = 0.08$, $Z = 0.98$, 95% CI $[-0.09; 0.25]$, $p = 0.93$, two-tailed) were both nonsignificant, thus lending suggestive support in favor of H5.

General Discussion

Our paper presents a first investigation into the content, prevalence, and consequences of organizational diversity cases. Study 1 investigated the content and prevalence of the diversity cases that organizations make to justify their commitment to diversity, and found that about 80% of the Fortune 500 companies make the business case for diversity, whereas between 1% and 5% make the fairness case (supporting H1). Given their prevalence, we next turned to investigate the consequences of these organizational diversity cases, theorizing that they may have important consequences for the anticipated psychological sense of belonging of underrepresented talent pools, because they encapsulate information about how organizations may view social identities, and thereby intersect with social identity threat. Specifically, our theory was that a business (compared to a fairness, or control) case for diversity would undermine underrepresented groups' (but not well-represented groups'; H5) anticipated sense of belonging to an organization (H2), and in turn predict lower interest in joining the organization (H4), because it would confirm LGBTQ+ professionals' (Study 2), STEM female job seekers' (Studies 3–4), and African American students' (Study 5–6), and graduates' (Study 6) concerns about being viewed through the lens of their social identities (i.e., trigger social identity threat; H3).

Our theory was supported among underrepresented group members across studies, and across the three stigmatized social identities studied—sexual orientation (Study 2), gender (Studies 3–4), and race (Studies 5–6). Studies 4–6 also addressed the question of directionality of the effects, finding that relative to a control case, the business case *increases* social identity threat among women seeking jobs in STEM fields and African Americans in higher education, which in turn undermines their anticipated sense of belonging to a prospective organization. While we unexpectedly did not find a significant difference in anticipated rejection across the business and fairness case conditions in Studies 4 and 6, a mini meta-analysis confirmed that across studies, anticipated rejection is significantly and reliably higher—and anticipated sense of belonging, lower—among underrepresented group members exposed to a business (vs. fairness) case for diversity. This confirms that the business case, in addition to being far more prevalent than the fairness case in organizations, is also significantly more detrimental to underrepresented group members than the fairness case—thus supporting H2.

Studies 4–6 also tested alternative processes, and showed that in addition to the hypothesized effect of social identity threat, sense of being depersonalized contributes to the detrimental effect of the business (vs. fairness and control) case on anticipated sense of belonging among both STEM women and African American

students. Perceptions of the organization as less internally motivated to control prejudice, however, appeared as a somewhat less reliable mechanism, which mediated the effect of the business (vs. fairness and control) case on anticipated sense of belonging among STEM women (Study 4), but not consistently among African American students (Study 6 vs. 5).

In addition, Studies 4–6 showed that the fairness (vs. control) case can also undermine anticipated rejection among underrepresented groups. We note that we had neither theorized nor predicted this effect, which emerged *post hoc*—albeit consistently—from the data. This finding should therefore be considered exploratory in nature. With this caveat in mind, we note that a comparison of effect sizes across Studies 4–6 reveals that the negative effects of the business case (vs. control) are consistently stronger than those of the fairness case (vs. control)—sometimes as much as twice as strong (see Studies 4–5)—and operate through a broader range of detrimental mechanisms. Taken together, our findings thus confirm that organizational diversity cases, and particularly the business case, represent a novel, albeit to date overlooked, cue of identity threat. Further, they suggest that the most prevalent organizational diversity case works against organizations' stated diversity goals, by paradoxically warding off the very groups they need to attract to become more diverse.

Finally, we found mixed evidence for our theory that instrumental diversity rhetoric specifically undermines underrepresented, but not well-represented, groups. Study 3 offered evidence that instrumental diversity rhetoric undermines anticipated sense of belonging among female, but not male, job seekers in STEM (supporting H5). Yet, Study 6 showed that the instrumentality inherent to the business case can increase anticipated rejection among White Americans—though the effect size was smaller than for African Americans. In contrast to African Americans, however, the business case did not undermine Whites' sense of belonging as a whole. Moreover, the mini meta-analysis confirmed that across Studies 3 and 6, there was no significant difference in anticipated sense of belonging across the business and fairness conditions, suggesting that unlike underrepresented group members, instrumentality (vs. noninstrumentality) does not significantly and reliably affect well-represented groups. We discuss below theoretical implications of these unexpected findings among well-represented groups.

Theoretical Implications

Our paper introduces a novel construct: organizational diversity cases, which uniquely capture *organizational-level* responses to the question of *why* diversity matters at work—an underinvestigated space that warrants further study. A core theoretical contribution of this work for diversity science is to pivot the field's focus from solely investigating the *veracity* of the business case for diversity to interrogating its *consequences*—as well as those of alternative organizational diversity cases. Our findings are especially meaningful because they show how organizational communications may shape underrepresented group members and women's outlook on a given organization prior to any interaction with individuals or teams in the organization, which means even earlier than past research has documented (Ely & Thomas, 2001; Homan et al., 2007;

¹³ Because Study 3 did not include a control condition, we cannot provide a mini-meta-estimated effect for the business-control and fairness-control comparisons for well-represented groups.

van Knippenberg, van Ginkel, & Homan, 2013). In providing novel insights about the unique consequences of organizations' instrumental (vs. noninstrumental) cases for why they value diversity, our work also advances beyond the traditional study of the consequences of emphasizing (vs. ignoring) group differences (the *how* question of diversity; Apfelbaum et al., 2016; Plaut et al., 2018; Purdie-Vaughns et al., 2008; Rattan & Ambady, 2013; Sasaki & Vorauer, 2013).

The current work also advances the study of social identity threat in three distinct ways. First, our work identifies organizational diversity cases as a novel source of social identity threat in organizations. In so doing, this paper advances an emerging body of research recognizing the crucial role that organization-level cues may play in shaping underrepresented groups' experiences at work (Bian et al., 2018; Emerson & Murphy, 2015; Hall et al., 2018; Murphy & Dweck, 2010; Purdie-Vaughns et al., 2008; Walton et al., 2015), and highlights why studying social identity threat directly in organizational contexts, rather than solely in academic settings, is essential (Casad & Bryant, 2016; Kalokerinos et al., 2014; Roberson & Kulik, 2007; von Hippel et al., 2015). Second, our work identifies a contextual cue of social identity threat that is cloaked in positivity toward diversity. That is, while past work has mostly focused on the consequences of obviously negative environmental cues (e.g., negative stereotypes, prejudice, exclusionary cultural norms, absence of same-group peers and mentors, fixed or nonuniversal mindsets; Aronson et al., 2002; Cheryan et al., 2009; Dasgupta, 2011; Davies et al., 2002; Purdie-Vaughns et al., 2008; Rattan et al., 2018), we show that seemingly positive diversity messages, which organizations use to convey that they *value* underrepresented groups, can in fact induce negative effects. This work thereby advances scholarship on the paradoxically threatening effects of some subjectively positive cues (e.g., positive stereotypes, Siy & Cheryan, 2013; benevolent sexism, Dardenne et al., 2007; group mascots, Fryberg et al., 2008), whose effects can be all the more insidious as targets may not consciously identify the source of threat, or feel they have a standing to confront it (Hopkins-Doyle et al., 2019). Third, we also note that the vast majority of research on social identity threat identifies broad *structural* factors as sources of threat among underrepresented groups in organizations (e.g., deeply ingrained stereotypes, systemic prejudice, underrepresentation, cultural norms, lay theories of intelligence, and potential; G. L. Cohen & Garcia, 2008; Dasgupta, 2011; Murphy & Taylor, 2012; Rattan et al., 2018; Steele et al., 2002), and highlights that changing these social dynamics is key to ultimately addressing the environmentally induced concern that social identity threat represents. However, changing social stereotypes, equalizing representation (of LGBTQ+ professionals in leadership, of women across the STEM pipeline, or of African Americans across professional fields), eradicating prejudice, and changing cultural norms or lay theories conveyed in organizations will inevitably take substantial time. Thus, the conclusion of much social identity threat research is bleak, suggesting that threat will persist over time, and that the most effective recourse for interventions is to address the consequences of threat (e.g., targeting feelings of not belonging; G. L. Cohen & Garcia, 2008; Walton & Cohen, 2011; or providing alternative sources of self-worth through values affirmation, Kinias & Sim, 2016; Layous et al., 2017; Martens et al., 2006), rather than the source of threat itself. In identifying a previously overlooked source of threat that is highly *malleable*—the instrumentality embedded in organizations' diversity cases—this work offers a major theoretical

advance to the study of social identity threat, by showing that it may be possible to mitigate threat itself by changing an organization's diversity case—an easier-to-achieve and more immediate action than suggested by previous research. In this way, the current research opens a new channel for the field of social identity threat, one that focuses on how to mitigate highly malleable sources of threat.

The current work also speaks to the study of business ethics, as the contrast between instrumental and noninstrumental rhetoric parallels the distinction between shareholder theory—which argues that managers' only responsibility is to maximize profits for shareholders (M. Friedman, 1970)—and stakeholder theory—which argues that managers have a moral responsibility to treat all of the organization's stakeholders (e.g., shareholders, but also employees, customers, suppliers, etc.) fairly, regardless of how this impacts the bottom-line (Freeman, 1984). Recent works in the domain of CSR have debated whether the distinction between these two types of motives even matters, given that both would prescribe committing to CSR, if CSR commitments are shown to benefit organizations' bottom-line (Carroll & Shabana, 2010; Heath & Norman, 2014; Vogel, 2005). While we did not specifically study CSR, our findings suggest that at least in the context of diversity, the motives that get communicated alongside organizations' commitments matter, as they can undermine organizations' ability to achieve their goals. It is possible to theorize that the current findings may extend to instrumental cases for CSR, such as instrumental cases for environmentally friendly business practices. In this way, the theoretical framework we develop in this work may also help to advance the field of business ethics.

Finally, while our findings show that the detrimental effects of the business case are consistent across stigmatized groups (LGBTQ+ individuals, women in STEM, African American students), the results are uneven for dominant group members. Instrumental diversity rhetoric seemed to negatively affect White Americans (Study 6), but not men in STEM (Study 4). As noted in the Study 6 discussion, these results are exploratory and should be interpreted cautiously. However, if these effects were to replicate, this would dovetail with recent work advocating for greater focus in diversity science on the unique differences that characterize race versus gender relations (Martin, 2018). Why might this pattern emerge in the context of race, but not gender? We propose that one explanation might lie at the intersection of system justification theory (Jost & Banaji, 1994) and emerging research highlighting the role of sociopolitical events in shaping intergroup attitudes (Does et al., 2019; Georgeac et al., 2019; Georgeac & Rattan, 2021; Nguyen et al., 2021; Sawyer & Gampa, 2018; Tankard & Paluck, 2017). Study 6 is indeed the only study in this paper that was conducted after the killing of George Floyd in May 2020—a tragic event that revived difficult conversations around racial bias and White privilege worldwide, with unprecedented strength and uniquely widespread public statements from organizations advocating for the value of Black lives. While some research has suggested that Whites' racial attitudes significantly improved in the wake of Floyd's killing (Eichstaedt et al., 2021; Onwuachi-Willig, 2021; Pew Research Center, 2020; Riley & Peterson, 2020; Tesler, 2020), recent research has shown, by contrast, that this positive change was short-lived (Griffin et al., 2021; Nguyen et al., 2021). Whites' favorability toward Black Lives Matter (BLM) steadily declined from the summer 2020 onward, whereas their favorability toward the police came back to pre-Floyd levels by January 2021 (Griffin et al., 2021).

At home, White parents also became more likely to convey a colorblind ideology when discussing race with their children post-Floyd—a well-intentioned ideology that nevertheless hinders the identification of, and fight against, racial bias (Sullivan et al., 2021). These findings are consistent with research on system justification theory, which proposes that people are motivated to justify the social and political systems in which they are embedded, particularly when their legitimacy is being questioned (Jost & Banaji, 1994; Jost & Hunyady, 2003, 2005; Kay et al., 2009). Justifications of the racial status quo, in particular, serve to defend and legitimize the racial hierarchy (Sidanius & Pratto, 1999). From this perspective, White participants in Study 6 may have perceived the business case—a message that claims to welcome and value the purportedly unique perspectives, experiences, and skills of stigmatized group members—as a rhetoric subverting the racial hierarchy, and therefore as a potential signal of anti-White bias (Norton & Sommers, 2011), of exclusion of Whites in the organization (Gündemir, Homan, et al., 2017; Plaut et al., 2011), or of the fact that Whites are no longer prototypical in the organization (Danbold & Huo, 2015, 2017). The post-Floyd context in which our study took place may thus explain why contrary to our theorizing and predictions, Whites randomly assigned to read a business (vs. control) case experienced greater social identity threat, greater anticipated rejection, and in turn, lower desire to join the organization. We eagerly look forward to future research which can explore these possibilities among different well-represented, dominant, or privileged groups.

Practical Implications

The key practical contribution of our work is to identify a concrete way in which organizations may avoid undermining their own diversity efforts: through a change in their organizational diversity cases. Concretely, the results of this paper make a coherent and reliable case for why organizations should abandon instrumental rationales for justifying their commitment to diversity. Of course, recommendations to abandon the business case for diversity opens the question of what a more optimal case for diversity would be. This paper raises the possibility that organizations may want to refrain altogether from justifying their commitment to diversity. By this, we of course do not mean to say that they should avoid talking about diversity—rather, that organizations may consider simply stating their commitment to diversity as a matter of fact, that is, as something that requires no justification and is simply part of the organization's core purpose. Alternatively, while using the fairness case on its own may not be the perfect answer that people, including us, may have expected (Bowman Williams, 2017; Edelman et al., 2001; Kaplan, 2020; Trawalter et al., 2016), our findings suggest that it is less detrimental than instrumental rhetoric.

Given our findings, the reader may wonder whether some of the detrimental effects of the business case could not be mitigated by mixing the business and fairness case together. While at present, we can only speculate about what the consequences of a mixed case might be, the theory developed in this paper suggests that any instrumental argument added to the fairness case might undermine the credibility of the fairness case's noninstrumental rhetoric. If this is the case, the consequences of a mixed case for underrepresented group members and women may align with those of the business case (also see Trawalter et al., 2016). Investigations of the mixed

case could involve manipulating the relative volume of instrumental versus noninstrumental arguments within the mixed case (e.g., a full-fledged business case with a dash of fairness case, vs. a full-fledged fairness case with a dash of business case), and manipulating the order of the justifications (e.g., business case first vs. fairness case first). Such investigation represents a worthwhile avenue for future research. However, given the unexpected, yet reliable finding in our paper that the fairness case also induces *some degree* of social identity threat relative to a control case, efforts to incorporate it into the business case may produce limited results when it comes to preventing threat among underrepresented groups.

Limitations and Future Directions

This paper documents for the first time to our knowledge the current prevalence of instrumental versus noninstrumental diversity cases among the Fortune 500. We studied the diversity rhetoric used by these organizations because they represent a nonarbitrary sample of companies (the biggest U.S. companies in terms of annual revenue), and the kind of firms where underrepresented group members would be likely to seek jobs; a majority of U.S. employees now work at large or very large firms (Francis, 2017), and the Fortune 500 are major job providers with 29 million employees; (Fortune, 2020). On the other hand, the Fortune 500 also represent a very particular type of companies, which begs the question of the generalizability of our prevalence findings to other types of organizations (small- or medium-sized companies, nonprofits, etc.). We see two reasons to believe that our finding about the prevalence of the business case would generalize beyond the Fortune 500. First, in the field of organizational sociology, institutional theory predicts that smaller organizations model their behavior and language after that of central, established organizations in business (e.g., the Fortune 500), in order to gain status and appear as legitimate actors in the business world (DiMaggio & Powell, 1983). Building on this theory, we would therefore predict that when conveying their commitment to diversity, smaller companies also use the business case to gain status and legitimacy within their field. Second, there is recent evidence that for-profits are not the only organizations using instrumental diversity rhetoric—universities, including public ones, also tie diversity to performance (i.e., diversity yields educational benefits; Starck et al., 2021). Therefore, we believe that our findings about the prevalence of the business case would likely generalize beyond the Fortune 500 companies—a prediction that future research should investigate empirically.

Turning to the effects of organizational diversity cases, we consistently found across studies that the business case—and to a lesser extent, the fairness case—increased anticipated rejection relative to control. We note, however, that absolute levels remained around or below the midpoint of the scale. Some scholars might ask whether these relatively low levels of anticipated rejection are influential. We argue that they are, for three reasons. First, we show that the levels of anticipated rejection observed in our studies are practically influential, in that they are associated with detrimental consequences for underrepresented job seekers' interest in joining the organization. Second, we note that these levels of anticipated rejection were obtained as a result of reading a single, short paragraph of text attributed to a fictitious organization, where participants were not actually applying for a job. One may argue that the fact that underrepresented participants experienced any sense of

anticipated rejection *at all* in this experimental context is *per se* practically meaningful. We view this finding as suggesting that in the real world—where job seekers are repeatedly exposed to instrumental rhetoric (through corporate websites, recruitment brochures, HR discourses, etc.)—levels of anticipated rejection among members of underrepresented groups may reach much higher levels—with potentially very influential effects. Third, we argue that any increase in the anticipated rejection experienced by women and underrepresented group members should be seen as yet another hindrance to meritocracy—an unequal burden placed upon those who are already marginalized—and thus as problematic. Indeed, we know from extant literature that these groups already struggle to achieve a sense of belonging in contexts where they are underrepresented. Therefore, the fact that widespread and seemingly positive organizational diversity rhetoric only serves to increase—rather than decrease—this difficulty is, in our view, influential. In addition, this outcome is at odds with organizations' attempts to diversify their ranks. Therefore, we would argue that any unexpected increase in anticipated rejection is of practical importance to organizations genuinely seeking to become diverse.

Future research should also investigate potential additional consequences of the business case for diversity. For instance, minority group members exposed to the business case for diversity may feel pressured to achieve more than members of majority groups, and to singlehandedly increase their team's or organization's performance. Specifically, it is possible that, by claiming that different groups bring different skills, perspectives, cognitive styles, and so forth, the business case may lead members of minority groups to expect a "segregated" experience in the organization, whereby members of different groups are expected to contribute different types of inputs, with different performance expectations. This set of external, seemingly positive expectations may induce anxiety and negative affect in members of underrepresented groups—possibly even constituting a new type of threat, distinct from social identity threat. We look forward to future research pursuing these possibilities further.

While we investigated the effects of organizational diversity cases on LGBTQ+ professionals, women in STEM, and African American students, there are of course other stigmatized and underrepresented groups that we did not directly investigate, thus leaving room for future work to investigate further generalizability. Our theory ought to hold among nongay members of the LGBTQ+ community's constituent groups (i.e., lesbians, bisexuals, trans, queer, etc.) who were underrepresented in our Study 2 sample. Given past work, future research might also extend our theory to job seekers from low socioeconomic (SES) backgrounds (Chen, 2004; Croizet & Claire, 1998; Harrison et al., 2006; Stephens et al., 2014), and older job seekers (Desrichard & Köpetz, 2005; Hess et al., 2003, 2009; Hess & Hinson, 2006; Mazerolle et al., 2012). These other underrepresented groups, as well as the question of intersectionality (Cole, 2009; Shields, 2008) will of course be essential for future research to investigate. It would, for instance, be fascinating to assess whether the business case has greater impact upon those who are multiply stigmatized (e.g., lesbian, or African American women in STEM). Such investigations, however, will require experiments specifically designed and powered to test interaction effects at the intersection of several social identities. Moreover, investigating whether an organization's actual level of diversity moderates the effect of organizational diversity cases on underrepresented group members' sense of belonging would provide insights into the boundary conditions of this

relationship. Relatedly, future research should also seek to investigate whether and why responses to instrumentality may differ across dominant groups (e.g., race vs. gender, but also vs. sexual orientation). In particular, understanding when and why White Americans experience of threat in response to different diversity cases is an exciting area for future research, as it may lead to a deeper understanding of the identity-contingent support White Americans exhibit for diversity initiatives, as well as point to interventions that prevent them from derailing diversity efforts in organizations. Finally, a related avenue for future research would be to investigate whether the business case for diversity hurts majority group members' anticipated sense of belonging in organizations or industries where they are underrepresented, or whether these groups are protected from the negative effects of the business case even in contexts where they are underrepresented, because they retain social identities that are valued more broadly in society.

While in this paper, we specifically focused on the consequences of the public rhetoric that organizations use to justify their commitment to diversity, one is bound to wonder about the private motives that lead organizations to use a given type of rhetoric. For instance, it is theoretically possible for organizations making the fairness case to use this noninstrumental rhetoric with the unstated goal of appearing more moral to their audiences, and of reaping bottom-line benefits from this moral reputation—thus effectively instrumentalizing the fairness case. In this example, the fairness case *rhetoric per se* is noninstrumental in nature (i.e., not justifying diversity on the grounds of its benefits for the organization). However, the *motive* for using the fairness case is instrumental (i.e., the goal is to reap benefits from making the fairness case). The discrepancy between public rhetoric and private motives may be important to consider, especially if motives predict the level or type of efforts that organizations actually deploy toward advancing diversity in the workplace, above and beyond what they publicly say about diversity. If this were to be the case, job seekers from underrepresented groups may be attracted to these organizations based on the diversity rhetoric they receive, only to discover once inside that these organizations do not actually invest in achieving diversity. Past works have documented the detrimental consequences for new recruits of perceiving discrepancies between organizations' public diversity messages and the actual state of diversity in the workplace (e.g., low levels of diversity, Kroeper et al., 2020; Wilton et al., 2020; Windscheid et al., 2016); unfavorable diversity climates, McKay & Avery, 2005). Future research could thus qualitatively investigate organizations' motives for using a given diversity rhetoric, and how the shift from newcomer to incumbent shapes underrepresented group members' experience of this rhetoric. Experiments manipulating diversity rhetoric (instrumental vs. noninstrumental) and organizational motive for using this rhetoric (instrumental vs. noninstrumental) would also contribute to shed light on the consequences that rhetoric-motive discrepancies versus consistencies may have for the retention of underrepresented employees over time.

Finally, scholarly understandings of organizational diversity cases cannot be complete without considering their consequences for other audiences, such as organizational members (cf. Bowman Williams, 2017; Trawalter et al., 2016), managers (Mayer et al., 2019), HR officials who are responsible for hiring in organizations, as well as board members. Recent work has for example suggested that the business case can fail to convince managers about the importance of social issues in general (Mayer et al., 2019), and to elicit CSR engagement among executives in particular (Hafenbrädl & Waeger, 2017). Future research

should continue to investigate the effects of organizational diversity cases on organizations' multiple audiences, to offer insights into when, why, and for whom organizations' messages about diversity succeed versus backfire, and to eventually produce theoretically sound and evidence-based organizational diversity cases that support, rather than hinder, organizations' efforts to advance diversity.

Conclusion

Advancing the study of diversity and theories of social identity threat, we identify organizational diversity cases as a critical and impactful construct that has not yet been studied to date, and crucially, as environmental cues that can amplify (or minimize) prospective employees' identity-based concerns. We specifically show that the way organizations justify their commitment to diversity matters for underrepresented group members' anticipated sense of belonging to prospective organizations, and for their interest in joining them. Our paper's findings offer a critique of the most widespread organizational diversity case in use today, highlighting the importance of theory-driven empirical investigations of organizational diversity rhetoric. It also identifies surprising negative effects of the fairness case, raising critical yet otherwise unimaginable questions about the drawbacks of a noninstrumental, equality-focused rhetoric. Additionally, our work raises exciting new questions, and complexities, for future investigations of dominant group members' responses to organizational diversity cases. In so doing, we point the field toward a new frontier of investigation, to explore what, if anything, organizations can and should say in order to explain their commitment to diversity.

References

- Adams, G., Garcia, D. M., Purdie-Vaughns, V., & Steele, C. M. (2006). The detrimental effects of a suggestion of sexism in an instruction situation. *Journal of Experimental Social Psychology, 42*(5), 602–615. <https://doi.org/10.1016/j.jesp.2005.10.004>
- Analytics Vidhya. (2020). *How to improve class imbalance using class weights in machine learning*. <https://www.analyticsvidhya.com/blog/2020/10/improve-class-imbalance-class-weights/>
- Apfelbaum, E. P., Norton, M. I., & Sommers, S. R. (2012). Racial color blindness. *Current Directions in Psychological Science, 21*(3), 205–209. <https://doi.org/10.1177/0963721411434980>
- Apfelbaum, E. P., Stephens, N. M., & Reagans, R. E. (2016). Beyond one-size-fits-all: Tailoring diversity approaches to the representation of social groups. *Journal of Personality and Social Psychology, 111*(4), 547–566. <https://doi.org/10.1037/pspi0000071>
- Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology, 38*(2), 113–125. <https://doi.org/10.1006/jesp.2001.1491>
- Asbrock, F. (2010). Stereotypes of social groups in Germany in terms of warmth and competence. *Social Psychology, 41*(2), 76–81. <https://doi.org/10.1027/1864-9335/a000011>
- AstraZeneca. (2020). *Inclusion and diversity*. <https://www.astrazeneca.com/sustainability/ethics-and-transparency/inclusion-and-diversity.html>
- Belmi, P., & Schroeder, J. (2021). Human “resources”? Objectification at work. *Journal of Personality and Social Psychology, 120*(2), 384–417. <https://doi.org/10.1037/pspi0000254>
- Bian, L., Leslie, S. J., Murphy, M. C., & Cimpian, A. (2018). Messages about brilliance undermine women's interest in educational and professional opportunities. *Journal of Experimental Social Psychology, 76*, 404–420. <https://doi.org/10.1016/j.jesp.2017.11.006>
- Bowman Williams, J. (2017). Breaking down bias: Legal mandates vs. corporate interests. *Washington Law Review (Seattle, Wash.), 92*(3), 1473–1513. <https://www.law.uw.edu/wlr/print-edition/print-edition/vol-92/3/breaking-down-bias-legal-mandates-vs-corporate-interests>
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin, 17*(5), 475–482. <https://doi.org/10.1177/0146167291175001>
- Canning, E. A., Muenks, K., Green, D. J., & Murphy, M. C. (2019). STEM faculty who believe ability is fixed have larger racial achievement gaps and inspire less student motivation in their classes. *Science Advances, 5*(2), Article eaau4734. <https://doi.org/10.1126/sciadv.aau4734>
- Carroll, A. B., & Shabana, K. M. (2010). The business case for corporate social responsibility: A review of concepts, research and practice. *International Journal of Management Reviews, 12*(1), 85–105. <https://doi.org/10.1111/j.1468-2370.2009.00275.x>
- Carter, A. B., & Phillips, K. W. (2017). The double-edged sword of diversity: Toward a dual pathway model. *Social and Personality Psychology Compass, 11*(5), Article e12313. <https://doi.org/10.1111/spc3.12313>
- Casad, B. J., & Bryant, W. J. (2016). Addressing stereotype threat is critical to diversity and inclusion in organizational psychology. *Frontiers in Psychology, 7*, Article 8. <https://doi.org/10.3389/fpsyg.2016.00008>
- Casciaro, T., Gino, F., & Kouchaki, M. (2014). The contaminating effects of building instrumental ties. *Administrative Science Quarterly, 59*(4), 705–735. <https://doi.org/10.1177/0001839214554990>
- Castañeda, M. B., Levin, J. R., & Dunham, R. B. (1993). Using planned comparisons in management research: A case for the Bonferroni procedure. *Journal of Management, 19*(3), 707–724. [https://doi.org/10.1016/0149-2063\(93\)90012-C](https://doi.org/10.1016/0149-2063(93)90012-C)
- Catalyst. (2013). *Why diversity matters*. <https://www.catalyst.org/research/why-diversity-matters/>
- Chapman, D. S., Uggerslev, K. L., Carroll, S. A., Piasentin, K. A., & Jones, D. A. (2005). Applicant attraction to organizations and job choice: A meta-analytic review of the correlates of recruiting outcomes. *Journal of Applied Psychology, 90*(5), 928–944. <https://doi.org/10.1037/0021-9010.90.5.928>
- Chen, E. (2004). Why socioeconomic status affects the health of children: A psychosocial perspective. *Current Directions in Psychological Science, 13*(3), 112–115. <https://doi.org/10.1111/j.0963-7214.2004.00286.x>
- Cheryan, S., Plaut, V. C., Davies, P. G., & Steele, C. M. (2009). Ambient belonging: How stereotypical cues impact gender participation in computer science. *Journal of Personality and Social Psychology, 97*(6), 1045–1060. <https://doi.org/10.1037/a0016239>
- Clark, D. (2014, August 21). Making the business case for diversity. *Forbes*. <https://www.forbes.com/sites/dorieclark/2014/08/21/making-the-business-case-for-diversity/?sh=1b0397541cd6>
- Cohen, G. L., & Garcia, J. (2005). “I am us”: Negative stereotypes as collective threats. *Journal of Personality and Social Psychology, 89*(4), 566–582. <https://doi.org/10.1037/0022-3514.89.4.566>
- Cohen, G. L., & Garcia, J. (2008). Identity, belonging, and achievement. *Current Directions in Psychological Science, 17*(6), 365–369. <https://doi.org/10.1111/j.1467-8721.2008.00607.x>
- Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement, 20*(1), 37–46. <https://doi.org/10.1177/001316446002000104>
- Cohen, L. L., & Swim, J. K. (1995). The differential impact of gender ratios on women and men: Tokenism, self-confidence, and expectations. *Personality and Social Psychology Bulletin, 21*(9), 876–884. <https://doi.org/10.1177/0146167295219001>
- Cole, E. R. (2009). Intersectionality and research in psychology. *American Psychologist, 64*(3), 170–180. <https://doi.org/10.1037/a0014564>
- Credit Suisse Research Institute. (2012, August). *Gender diversity and corporate performance*. https://wapp.hks.harvard.edu/files/wapp/files/gender_diversity.pdf

- Credit Suisse Research Institute. (2016, September). *The Credit Suisse gender 3000: The reward for change*. <https://www.credit-suisse.com/media/assets/corporate/docs/about-us/research/publications/csri-gender-3000.pdf>
- Croizet, J.-C., & Claire, T. (1998). Extending the concept of stereotype threat to social class: The intellectual underperformance of students from low socioeconomic backgrounds. *Personality and Social Psychology Bulletin*, 24(6), 588–594. <https://doi.org/10.1177/0146167298246003>
- Danbold, F., & Huo, Y. J. (2015). No longer “All-American”? Whites’ defensive reactions to their numerical decline. *Social Psychological & Personality Science*, 6(2), 210–218. <https://doi.org/10.1177/1948550614546355>
- Danbold, F., & Huo, Y. J. (2017). Men’s defense of their prototypicality undermines the success of women in STEM initiatives. *Journal of Experimental Social Psychology*, 72, 57–66. <https://doi.org/10.1016/j.jesp.2016.12.014>
- Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: Consequences for women’s performance. *Journal of Personality and Social Psychology*, 93(5), 764–779. <https://doi.org/10.1037/0022-3514.93.5.764>
- Dasgupta, N. (2011). Ingroup experts and peers as social vaccines who inoculate the self-concept: The stereotype inoculation model. *Psychological Inquiry*, 22(4), 231–246. <https://doi.org/10.1080/1047840X.2011.607313>
- Davies, P. G., Spencer, S. J., Quinn, D. M., & Gerardstein, R. (2002). Consuming images: How television commercials that elicit stereotype threat can restrain women academically and professionally. *Personality and Social Psychology Bulletin*, 28(12), 1615–1628. <https://doi.org/10.1177/014616702237644>
- Deloitte & The Alliance for Board Diversity. (2016). *Missing pieces report: The 2016 board diversity census of women and minorities on Fortune 500 boards*. https://www.catalyst.org/system/files/2016_board_diversity_census_deloitte_abd.pdf
- De Meuse, K. P., & Hostager, T. J. (2001). Developing an instrument for measuring attitudes toward and perceptions of workplace diversity: An initial report. *Human Resource Development Quarterly*, 12(1), 33–51. [https://doi.org/10.1002/1532-1096\(200101/02\)12:1<33::AID-HRDQ4>3.0.CO;2-P](https://doi.org/10.1002/1532-1096(200101/02)12:1<33::AID-HRDQ4>3.0.CO;2-P)
- Desrichard, O., & Köpetz, C. (2005). A threat in the elder: The impact of task instructions, self-efficacy and performance expectations on memory performance in the elderly. *European Journal of Social Psychology*, 35(4), 537–552. <https://doi.org/10.1002/ejsp.249>
- Dill, K. (2016, July 13). The 10 companies with the most STEM job openings right now. *Forbes*. <https://www.forbes.com/pictures/fjle45edklj/no-1-amazon/#f40acb953a3b>
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. <https://doi.org/10.2307/2095101>
- Does, S., Gündemir, S., & Shih, M. (2019). The Divided States of America: How the 2016 U.S. presidential election shaped perceived levels of gender equality. *Social Psychological & Personality Science*, 10(3), 374–381. <https://doi.org/10.1177/1948550618757033>
- Drury, B. J., Siy, J. O., & Cheryan, S. (2011). When do female role models benefit women? The importance of differentiating recruitment from retention in STEM. *Psychological Inquiry*, 22(4), 265–269. <https://doi.org/10.1080/1047840X.2011.620935>
- Dutton, J. E., & Ashford, S. J. (1993). Selling issues to top management. *Academy of Management Review*, 18(3), 397–428. <https://doi.org/10.5465/amr.1993.9309035145>
- Eagly, A. H. (2016). When passionate advocates meet research on diversity, does the honest broker stand a chance? *Journal of Social Issues*, 72(1), 199–222. <https://doi.org/10.1111/josi.12163>
- Eccles, J. S. (2005). Subjective task value and the Eccles et al. model of achievement-related choices. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 105–121). Guilford Press.
- Edelman, L. B., Fuller, S. R., & Mara-Drita, I. (2001). Diversity rhetoric and the managerialization of law. *American Journal of Sociology*, 106(6), 1589–1641. <https://doi.org/10.1086/321303>
- Eichstaedt, J. C., Sherman, G. T., Giorgi, S., Roberts, S. O., Reynolds, M. E., Ungar, L. H., & Guntuku, S. C. (2021). The emotional and mental health impact of the murder of George Floyd on the US population. *Proceedings of the National Academy of Sciences of the United States of America*, 118(39), Article e2109139118. <https://doi.org/10.1073/pnas.2109139118>
- Ely, R. J., & Thomas, D. A. (2001). Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly*, 46(2), 229–273. <https://doi.org/10.2307/2667087>
- Emerson, K. T. U., & Murphy, M. C. (2015). A company I can trust? Organizational lay theories moderate stereotype threat for women. *Personality and Social Psychology Bulletin*, 41(2), 295–307. <https://doi.org/10.1177/0146167214564969>
- Fasoli, F., Maass, A., Paladino, M. P., & Sulpizio, S. (2017). Gay- and lesbian-sounding auditory cues elicit stereotyping and discrimination. *Archives of Sexual Behavior*, 46(5), 1261–1277. <https://doi.org/10.1007/s10508-017-0962-0>
- Fassinger, R. E., Shullman, S. L., & Stevenson, M. R. (2010). Toward an affirmative lesbian, gay, bisexual, and transgender leadership paradigm. *American Psychologist*, 65(3), 201–215. <https://doi.org/10.1037/a0018597>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Fernández, A., García, S., Galar, M., Prati, R. C., Krawczyk, B., & Herrera, F. (2018). Foundations on imbalanced classification. *Learning from imbalanced data sets* (pp. 19–46). Springer. https://doi.org/10.1007/978-3-319-98074-4_2
- Fives, A., Russell, D. W., Kearns, N., Lyons, R., Eaton, P., Canavan, J., Devaney, C., & O’Brien, A. (2013). The role of random allocation in randomized controlled trials: Distinguishing selection bias from baseline imbalance. *Journal of Multidisciplinary Evaluation*, 9(20), 33–42. https://journals.sfu.ca/jmde/index.php/jmde_1/article/view/371
- Fortune. (2020). *Fortune 500*. <https://fortune.com/fortune500/2019/#:~:text=Total%2CFortune500companies,employ28.7millionpeopleworldwide>
- Francis, T. (2017, April 6). Why you probably work for a giant company, in 20 charts. *The Wall Street Journal*. <https://www.wsj.com/graphics/big-companies-get-bigger/>
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman Publishing.
- Friedman, J. J., & DiTomaso, N. (1996). Myths about diversity: What managers need to know about changes in the U.S. labor force. *California Management Review*, 38(4), 54–77. <https://doi.org/10.2307/41165854>
- Friedman, M. (1970, September 13). The social responsibility of business is to increase its profits. *The New York Times Magazine*, 32–33, 122–126.
- Fryberg, S. A., Markus, H. R., Oyserman, D., & Stone, J. M. (2008). Of warrior chiefs and Indian princesses: The psychological consequences of American Indian mascots. *Basic and Applied Social Psychology*, 30(3), 208–218. <https://doi.org/10.1080/01973530802375003>
- Georgeac, O. A. M., Kaplan, S., Ely, R. J., Birnbaum, H., Roberts, L. M. (2019). Reevaluating the business case for diversity: Consequences for advocates, women, leaders, & scholars. *Academy of Management Proceedings*, 2019(1), Article 13860. <https://doi.org/10.5465/AMBPP.2019.13860symposium>

- Georgeac, O. A. M., & Rattan, A. (2021). Perceiving progress toward social equality: A model of signals and sense-making. *Current Opinion in Psychology*, 44, 12–17. <https://doi.org/10.1016/j.copsyc.2021.08.012>
- Georgeac, O. A. M., Rattan, A., & Effron, D. A. (2019). An exploratory investigation of Americans' expression of gender bias before and after the 2016 presidential election. *Social Psychological & Personality Science*, 10(5), 632–642. <https://doi.org/10.1177/1948550618776624>
- Giner-Sorolla, R. (2018). *Powering your interaction*. Approaching Significance. <https://approachingblog.wordpress.com/2018/01/24/powering-your-interaction-2/>
- Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human: Implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology*, 94(2), 292–306. <https://doi.org/10.1037/0022-3514.94.2.292>
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Prentice Hall.
- Goh, J. X., Hall, J. A., & Rosenthal, R. (2016). Mini meta-analysis of your own studies: Some arguments on why and a primer on how. *Social and Personality Psychology Compass*, 10(10), 535–549. <https://doi.org/10.1111/spc3.12267>
- Good, C., Rattan, A., & Dweck, C. S. (2012). Why do women opt out? Sense of belonging and women's representation in mathematics. *Journal of Personality and Social Psychology*, 102(4), 700–717. <https://doi.org/10.1037/a0026659>
- Griffin, R., Quasem, M., Sides, J., & Tesler, M. (2021). *Racing apart: Partisan shifts on racial attitudes over the last decade*. <https://www.vote.rstudygroup.org/publication/racing-apart>
- Griffith, K. H., & Hebl, M. R. (2002). The disclosure dilemma for gay men and lesbians: "Coming out" at work. *Journal of Applied Psychology*, 87(6), 1191–1199. <https://doi.org/10.1037/0021-9010.87.6.1191>
- Gündemir, S., Dovidio, J. F., Homan, A. C., & De Dreu, C. K. W. (2017). The impact of organizational diversity policies on minority employees' leadership self-perceptions and goals. *Journal of Leadership & Organizational Studies*, 24(2), 172–188. <https://doi.org/10.1177/1548051816662615>
- Gündemir, S., Homan, A. C., Usova, A., & Galinsky, A. D. (2017). Multicultural meritocracy: The synergistic benefits of valuing diversity and merit. *Journal of Experimental Social Psychology*, 73, 34–41. <https://doi.org/10.1016/j.jesp.2017.06.002>
- Hafenbrädl, S., & Waeger, D. (2017). Ideology and the micro-foundations of CSR: Why executives believe in the business case for CSR and how this affects their CSR engagements. *Academy of Management Journal*, 60(4), 1582–1606. <https://doi.org/10.5465/amj.2014.0691>
- Hall, W., Schmader, T., Aday, A., Inness, M., & Croft, E. (2018). Climate control: The relationship between social identity threat and cues to an identity-safe culture. *Journal of Personality and Social Psychology*, 115(3), 446–467. <https://doi.org/10.1037/pspi0000137>
- Harrison, L. A., Stevens, C. M., Monty, A. N., & Coakley, C. A. (2006). The consequences of stereotype threat on the academic performance of white and non-white lower income college students. *Social Psychology of Education*, 9(3), 341–357. <https://doi.org/10.1007/s11218-005-5456-6>
- Hayes, A. F. (2013). *An introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.
- Hayes, A. F., & Preacher, K. J. (2014). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical & Statistical Psychology*, 67(3), 451–470. <https://doi.org/10.1111/bmsp.12028>
- Heath, J., & Norman, W. (2014). Stakeholder theory, corporate governance, and public management. In J. Heath (Ed.), *Morality, competition, and the firm: The market failures approach to business ethics* (pp. 42–67). Oxford University Press. <https://doi.org/10.1093/acprof:osobl/9780199990481.003.0003>
- Hebl, M. R., Martinez, L. R., Skorinko, J. L., Barron, L. G., & King, E. B. (2014). To be or not to be; and to see or not to see: The benefits of LGBT identity consciousness for organizations and employees. In K. M. Thomas, V. C. Plaut, & N. M. Tran (Eds.), *Diversity ideologies in organizations* (pp. 151–176). Routledge.
- Hess, T. M., Auman, C., Colcombe, S. J., & Rahhal, T. A. (2003). The impact of stereotype threat on age differences in memory performance. *Journal of Gerontology: Psychological Sciences*, 58B(1), 3–11. <https://doi.org/10.1093/geronb/58.1.P3>
- Hess, T. M., & Hinson, J. T. (2006). Age-related variation in the influences of aging stereotypes on memory in adulthood. *Psychology and Aging*, 21(3), 621–625. <https://doi.org/10.1037/0882-7974.21.3.621>
- Hess, T. M., Hinson, J. T., & Hodges, E. A. (2009). Moderators of and mechanisms underlying stereotype threat effects on older adults' memory performance. *Experimental Aging Research*, 35(2), 153–177. <https://doi.org/10.1080/03610730802716413>
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21(5), 967–988. <https://doi.org/10.1177/014920639502100509>
- Homan, A. C., Greer, L. L., Jehn, K. A., & Koning, L. (2010). Believing shapes seeing: The impact of diversity beliefs on the construal of group composition. *Group Processes & Intergroup Relations*, 13(4), 477–493. <https://doi.org/10.1177/1368430209350747>
- Homan, A. C., van Knippenberg, D., Van Kleef, G. A., & De Dreu, C. K. W. (2007). Bridging faultlines by valuing diversity: Diversity beliefs, information elaboration, and performance in diverse work groups. *Journal of Applied Psychology*, 92(5), 1189–1199. <https://doi.org/10.1037/0021-9010.92.5.1189>
- Hopkins-Doyle, A., Sutton, R. M., Douglas, K. M., & Calogero, R. M. (2019). Flattering to deceive: Why people misunderstand benevolent sexism. *Journal of Personality and Social Psychology*, 116(2), 167–192. <https://doi.org/10.1037/pspa0000135>
- Horwitz, S. K., & Horwitz, I. B. (2007). The effects of team diversity on team outcomes: A meta-analytic review of team demography. *Journal of Management*, 33(6), 987–1015. <https://doi.org/10.1177/0149206307308587>
- Hülsheger, U. R., Anderson, N., & Salgado, J. F. (2009). Team-level predictors of innovation at work: A comprehensive meta-analysis spanning three decades of research. *Journal of Applied Psychology*, 94(5), 1128–1145. <https://doi.org/10.1037/a0015978>
- Inzlicht, M., & Ben-Zeev, T. (2000). A threatening intellectual environment: Why females are susceptible to experiencing problem-solving deficits in the presence of males. *Psychological Science*, 11(5), 365–371. <https://doi.org/10.1111/1467-9280.00272>
- James, G., Witten, D., Hastie, T., & Tibshirani, R. (2017). *An introduction to statistical learning: With applications in R*. Springer.
- Jansen, W. S., Vos, M. W., Otten, S., Podsiadlowski, A., & van der Zee, K. I. (2016). Colorblind or colorful? How diversity approaches affect cultural majority and minority employees. *Journal of Applied Social Psychology*, 46(2), 81–93. <https://doi.org/10.1111/jasp.12332>
- Johnston, W. B., & Packer, A. E. (1987). *Workforce 2000: Work and workers for the 21st century*. Hudson Institute.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, 33(1), 1–27. <https://doi.org/10.1111/j.2044-8309.1994.tb01008.x>
- Jost, J. T., & Hunyady, O. (2003). The psychology of system justification and the palliative function of ideology. *European Review of Social Psychology*, 13(1), 111–153. <https://doi.org/10.1080/10463280240000046>
- Jost, J. T., & Hunyady, O. (2005). Antecedents and consequences of system-justifying ideologies. *Current Directions in Psychological Science*, 14(5), 260–265. <https://doi.org/10.1111/j.0963-7214.2005.00377.x>
- Kalokerinos, E. K., von Hippel, C., & Zacher, H. (2014). Is stereotype threat a useful construct for organizational psychology research and practice?

- Industrial and Organizational Psychology: Perspectives on Science and Practice*, 7(3), 381–402. <https://doi.org/10.1111/iops.12167>
- Kaplan, S. (2020). Beyond the business case for social responsibility. *Academy of Management Discoveries*, 6(1), 1–4. <https://doi.org/10.5465/amd.2018.0220>
- Kay, A. C., Gaucher, D., Peach, J. M., Laurin, K., Friesen, J., Zanna, M. P., & Spencer, S. J. (2009). Inequality, discrimination, and the power of the status quo: Direct evidence for a motivation to see the way things are as the way they should be. *Journal of Personality and Social Psychology*, 97(3), 421–434. <https://doi.org/10.1037/a0015997>
- Kinias, Z., & Sim, J. (2016). Facilitating women's success in business: Interrupting the process of stereotype threat through affirmation of personal values. *Journal of Applied Psychology*, 101(11), 1585–1597. <https://doi.org/10.1037/apl0000139>
- Kroeper, K. M., Williams, H. E., & Murphy, M. C. (2020). Counterfeit diversity: How strategically misrepresenting gender diversity dampens organizations' perceived sincerity and elevates women's identity threat concerns. *Journal of Personality and Social Psychology*. Advance online publication. <https://doi.org/10.1037/pspi0000348>
- Landivar, L. C. (2013, September). *Disparities in STEM employment by sex, race, and Hispanic origin* (ACS-24; American Community Survey Reports). United States Census Bureau. <https://www2.census.gov/library/publications/2013/acs/acs-24.pdf>
- Layous, K., Davis, E. M., Garcia, J., Purdie-Vaughns, V., Cook, J. E., & Cohen, G. L. (2017). Feeling left out, but affirmed: Protecting against the negative effects of low belonging in college. *Journal of Experimental Social Psychology*, 69, 227–231. <https://doi.org/10.1016/j.jesp.2016.09.008>
- Leslie, S.-J., Cimpian, A., Meyer, M., & Freeland, E. (2015). Expectations of brilliance underlie gender distributions across academic disciplines. *Science*, 347(6219), 262–265. <https://doi.org/10.1126/science.1261375>
- Lever, J., Krzywinski, M., & Altman, N. (2016). Classification evaluation. *Nature Methods*, 13(8), 603–604. <https://doi.org/10.1038/nmeth.3945>
- Leyens, J.-P., Désert, M., Croizet, J.-C., & Darcis, C. (2000). Stereotype threat: Are lower status and history of stigmatization preconditions of stereotype threat? *Personality and Social Psychology Bulletin*, 26(10), 1189–1199. <https://doi.org/10.1177/0146167200262002>
- Litvin, D. R. (2002). The business case for diversity and the “iron cage”. In B. Czarniawska & H. Höpfl (Eds.), *Casting the other: The production and maintenance of inequalities in work organizations* (pp. 160–184). Routledge.
- Logel, C., Walton, G. M., Spencer, S. J., Iserman, E. C., von Hippel, W., & Bell, A. E. (2009). Interacting with sexist men triggers social identity threat among female engineers. *Journal of Personality and Social Psychology*, 96(6), 1089–1103. <https://doi.org/10.1037/a0015703>
- Macmillan, N. A., & Creelman, C. D. (1991). *Detection theory: A user's guide* (C. D. Creelman, Ed.). Cambridge University Press.
- Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology*, 56(1), 393–421. <https://doi.org/10.1146/annurev.psych.56.091103.070137>
- Manjoo, F. (2014, September 26). The business case for diversity in the tech industry. *New York Times*. <https://bits.blogs.nytimes.com/2014/09/26/the-business-case-for-diversity-in-the-tech-industry/>
- Mannix, E., & Neale, M. A. (2005). What differences make a difference? The promise and reality of diverse teams in organizations. *Psychological Science in the Public Interest*, 6(2), 31–55. <https://doi.org/10.1111/j.1529-1006.2005.00022.x>
- M Markus, H. R., Steele, C. M., & Steele, D. (2000). Colorblindness as a barrier to inclusion: Assimilation and nonimmigrant minorities. *Daedalus*, 129(4), 233–259. <https://www.jstor.org/stable/20027672>
- Martens, A., Johns, M., Greenberg, J., & Schimel, J. (2006). Combating stereotype threat: The effect of self-affirmation on women's intellectual performance. *Journal of Experimental Social Psychology*, 42(2), 236–243. <https://doi.org/10.1016/j.jesp.2005.04.010>
- Martin, A. E. (2018). *The divergent effects of diversity ideologies for race and gender relations*. Columbia University.
- Mayer, D. M., Ong, M., Sonenshein, S., & Ashford, S. J. (2019). The money or the morals? When moral language is more effective for selling social issues. *Journal of Applied Psychology*, 104(8), 1058–1076. <https://doi.org/10.1037/apl0000388>
- Mazerolle, M., Régner, I., Morisset, P., Rigalleau, F., & Huguet, P. (2012). Stereotype threat strengthens automatic recall and undermines controlled processes in older adults. *Psychological Science*, 23(7), 723–727. <https://doi.org/10.1177/0956797612437607>
- McKay, P. F., & Avery, D. R. (2005). Warning! Diversity recruitment could backfire. *Journal of Management Inquiry*, 14(4), 330–336. <https://doi.org/10.1177/1056492605280239>
- McKinsey & Company. (2010). *Women at the top of corporations: Making it happen*. https://www.asx.com.au/documents/media/2010_mckinsey_co_women_matter.pdf
- McKinsey & Company. (2015). *Diversity matters*. <https://doi.org/10.1002/9781118324004.ch44>
- Milliken, F. J., & Martins, L. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *Academy of Management Review*, 21(2), 402–433. <https://doi.org/10.5465/amr.1996.9605060217>
- Morris, M. W., Chiu, C. Y., & Liu, Z. (2015). Polycultural psychology. *Annual Review of Psychology*, 66(1), 631–659. <https://doi.org/10.1146/annurev-psych-010814-015001>
- Muenks, K., Canning, E. A., LaCosse, J., Green, D. J., Zirkel, S., Garcia, J. A., & Murphy, M. C. (2020). Does my professor think my ability can change? Students' perceptions of their STEM professors' mindset beliefs predict their psychological vulnerability, engagement, and performance in class. *Journal of Experimental Psychology: General*, 149(11), 2119–2144. <https://doi.org/10.1037/xge0000763>
- Murphy, M. C., & Dweck, C. S. (2010). A culture of genius: How an organization's lay theory shapes people's cognition, affect, and behavior. *Personality and Social Psychology Bulletin*, 36(3), 283–296. <https://doi.org/10.1177/0146167209347380>
- Murphy, M. C., Steele, C. M., & Gross, J. J. (2007). Signaling threat: How situational cues affect women in math, science, and engineering settings. *Psychological Science*, 18(10), 879–885. <https://doi.org/10.1111/j.1467-9280.2007.01995.x>
- Murphy, M. C., & Taylor, V. (2012). The role of situational cues in signaling and maintaining stereotype threat. In M. Inzlicht & T. Schmader (Eds.), *Stereotype threat: Theory, process, and application* (pp. 17–33). Oxford University Press.
- National Science Foundation. (2017). *Women, minorities, and persons with disabilities in science and engineering* (NSF 17-310). www.nsf.gov/statistics/wmpd/
- Nguyen, T. T., Criss, S., Michaels, E. K., Cross, R. I., Michaels, J. S., Dwivedi, P., Huang, D., Hsu, E., Mukhija, K., Nguyen, L. H., Yardi, I., Allen, A. M., Nguyen, Q. C., & Gee, G. C. (2021). Progress and push-back: How the killings of Ahmaud Arbery, Breonna Taylor, and George Floyd impacted public discourse on race and racism on Twitter. *SSM—Population Health*, 15, Article 100922. <https://doi.org/10.1016/j.ssmph.2021.100922>
- Norton, M. I., & Sommers, S. R. (2011). Whites see racism as a zero-sum game that they are now losing. *Perspectives on Psychological Science*, 6(3), 215–218. <https://doi.org/10.1177/1745691611406922>
- Olsen, J. E., & Martins, L. L. (2016). Racioethnicity, community makeup, and potential employees' reactions to organizational diversity management approaches. *Journal of Applied Psychology*, 101(5), 657–672. <https://doi.org/10.1037/apl0000080>
- Onwuachi-Willig, A. (2021). The trauma of awakening to racism: Did the tragic killing of George Floyd result in cultural trauma for Whites? *Houston Law Review*, 58(4), Article 22269. <https://houstonlawreview.org/article/22269-the-trauma-of-awakening-to-racism-did-the-tragic-killing-of-george-floyd-result-in-cultural-trauma-for-whites>

- Peery, D. (2011). The colorblind ideal in a race-conscious reality: The case for a new legal ideal for race relations. *Northwestern Journal of Law and Social Policy*, 6(2), Article 473. <https://scholarlycommons.law.northwestern.edu/njlsp/vol6/iss2/12/>
- Pew Research Center. (2020). *Amid protests, majorities across racial and ethnic groups express support for the Black Lives Matter movement*. https://www.pewsocialtrends.org/wp-content/uploads/sites/3/2020/06/PSDT_06.12.20_protest_fullreport.pdf
- Pickett, C. L., Silver, M. D., & Brewer, M. B. (2002). The impact of assimilation and differentiation needs on perceived group importance and judgments of ingroup size. *Personality and Social Psychology Bulletin*, 28(4), 546–558. <https://doi.org/10.1177/0146167202287011>
- Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology*, 76(1), 114–128. <https://doi.org/10.1037/0022-3514.76.1.114>
- Plant, E. A., & Devine, P. G. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology*, 75(3), 811–832. <https://doi.org/10.1037/0022-3514.75.3.811>
- Plaut, V. C. (2010). Diversity science: Why and how difference makes a difference. *Psychological Inquiry*, 21(2), 77–99. <https://doi.org/10.1080/10478401003676501>
- Plaut, V. C., Garnett, F. G., Buffardi, L. E., & Sanchez-Burks, J. (2011). “What about me?” Perceptions of exclusion and whites’ reactions to multiculturalism. *Journal of Personality and Social Psychology*, 101(2), 337–353. <https://doi.org/10.1037/a0022832>
- Plaut, V. C., Thomas, K. M., Hurd, K., & Romano, C. A. (2018). Do color blindness and multiculturalism remedy or foster discrimination and racism? *Current Directions in Psychological Science*, 27(3), 200–206. <https://doi.org/10.1177/0963721418766068>
- Pletzer, J. L., Nikolova, R., Kedzior, K. K., & Voelpel, S. C. (2015). Does gender matter? Female representation on corporate boards and firm financial performance - A meta-analysis. *PLOS ONE*, 10(6), Article e0130005. <https://doi.org/10.1371/journal.pone.0130005>
- Post, C., & Byron, K. (2015). Women on boards and firm financial performance: A meta-analysis. *Academy of Management Journal*, 58(5), 1546–1571. <https://doi.org/10.5465/amj.2013.0319>
- Provost, F. (2000). Machine learning from imbalanced data sets 101. *Proceedings of the AAAI’2000 workshop on imbalanced data sets* (Vol. 68, pp. 1–3). AAAI Press. <https://www.aaai.org/Papers/Workshops/2000/WS-00-05/WS00-05-001.pdf>
- Purdie-Vaughns, V., Steele, C. M., Davies, P. G., Dittmann, R., & Crosby, J. R. (2008). Social identity contingencies: How diversity cues signal threat or safety for African Americans in mainstream institutions. *Journal of Personality and Social Psychology*, 94(4), 615–630. <https://doi.org/10.1037/0022-3514.94.4.615>
- Quorum. (2019). *Out leadership’s LGBT+ boards diversity and disclosure guidelines*.
- Ratliff, K. A., Lofaro, N., Howell, J. L., Conway, M. A., Lai, C. K., O’Shea, B. A., Smith, C. T., Jiang, C., Redford, L., Pogge, G., Umansky, E., Vitiello, C., & Zitely, H. (2020). *Documenting bias from 2007–2015: Pervasiveness and correlates of implicit attitudes and stereotypes II* [Unpublished manuscript].
- Rattan, A., & Ambady, N. (2013). Diversity ideologies and intergroup relations: An examination of colorblindness and multiculturalism. *European Journal of Social Psychology*, 43(1), 12–21. <https://doi.org/10.1002/ejsp.1892>
- Rattan, A., & Dweck, C. S. (2010). Who confronts prejudice?: The role of implicit theories in the motivation to confront prejudice. *Psychological Science*, 21(7), 952–959. <https://doi.org/10.1177/0956797610374740>
- Rattan, A., Savani, K., Komarraju, M., Morrison, M. M., Boggs, C., & Ambady, N. (2018). Meta-lay theories of scientific potential drive underrepresented students’ sense of belonging to science, technology, engineering, and mathematics (STEM). *Journal of Personality and Social Psychology*, 115(1), 54–75. <https://doi.org/10.1037/pspi0000130>
- Riley, E. Y., & Peterson, C. (2020). I can’t breathe. *National Review of Black Politics*, 1(4), 496–515. <https://doi.org/10.1525/nrbp.2020.1.4.496>
- Roberson, L., & Kulik, C. T. (2007). Stereotype threat at work. *The Academy of Management Perspectives*, 21(2), 24–40. <https://doi.org/10.5465/amp.2007.25356510>
- Roberts, S. O., Bareket-Shavit, C., Dollins, F. A., Goldie, P. D., & Mortenson, E. (2020). Racial inequality in psychological research: Trends of the past and recommendations for the future. *Perspectives on Psychological Science*, 15(6), 1295–1309. <https://doi.org/10.1177/1745691620927709>
- Rosenthal, L., & Levy, S. R. (2010). The colorblind, multicultural, and polycultural ideological approaches to improving intergroup attitudes and relations. *Social Issues and Policy Review*, 4(1), 215–246. <https://doi.org/10.1111/j.1751-2409.2010.01022.x>
- Rosenthal, L., & Levy, S. R. (2012). The relation between polyculturalism and intergroup attitudes among racially and ethnically diverse adults. *Cultural Diversity & Ethnic Minority Psychology*, 18(1), 1–16. <https://doi.org/10.1037/a0026490>
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, 5(4), 296–320. https://doi.org/10.1207/S15327957PSPR0504_2
- Ruxton, G. D., & Beauchamp, G. (2008). Time for some a priori thinking about post hoc testing. *Behavioral Ecology*, 19(3), 690–693. <https://doi.org/10.1093/beheco/arn020>
- Sasaki, S. J., & Vorauer, J. D. (2013). Ignoring versus exploring differences between groups: Effects of salient color-blindness and multiculturalism on intergroup attitudes and behavior. *Social and Personality Psychology Compass*, 7(4), 246–259. <https://doi.org/10.1111/spc3.12021>
- Sawyer, J., & Gampa, A. (2018). Implicit and explicit racial attitudes changed during Black Lives Matter. *Personality and Social Psychology Bulletin*, 44(7), 1039–1059. <https://doi.org/10.1177/0146167218757454>
- Schein, V. E., & Diamante, T. (1988). Organizational attraction and the person-environment fit. *Psychological Reports*, 62(1), 167–173. <https://doi.org/10.2466/pr0.1988.62.1.167>
- Schriesheim, C. A., Powers, K. J., Scandura, T. A., Gardiner, C. C., & Lankau, M. J. (1993). Improving construct measurement in management research: Comments and a quantitative approach for assessing the theoretical content adequacy of paper-and-pencil survey-type instruments. *Journal of Management*, 19(2), 385–417. <https://doi.org/10.1177/014920639301900208>
- Shields, S. A. (2008). Gender: An intersectionality perspective. *Sex Roles*, 59(5–6), 301–311. <https://doi.org/10.1007/s11199-008-9501-8>
- Shore, L. M., Randel, A. E., Chung, B. G., Dean, M. A., Holcombe Ehrhart, K., & Singh, G. (2011). Inclusion and diversity in work groups: A review and model for future research. *Journal of Management*, 37(4), 1262–1289. <https://doi.org/10.1177/0149206310385943>
- Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139175043>
- Simonsohn, U. (2015). [17] no-way interactions. The Winnower. <https://doi.org/10.15200/winn.142559.90552>
- Siy, J. O., & Cheryan, S. (2013). When compliments fail to flatter: American individualism and responses to positive stereotypes. *Journal of Personality and Social Psychology*, 104(1), 87–102. <https://doi.org/10.1037/a0030183>
- Smedley, T. (2014, May 15). The evidence is growing—There really is a business case for diversity. *The Financial Times*. <https://www.ft.com/content/4f4b3c8e-d521-11e3-9187-00144feabdc0>
- Sonenshein, S. (2006). Crafting social issues at work. *Academy of Management Journal*, 49(6), 1158–1172. <https://doi.org/10.5465/amj.2006.23478243>
- Starck, J. G., Sinclair, S., & Shelton, J. N. (2021). How university diversity rationales inform student preferences and outcomes. *Proceedings of the National Academy of Sciences of the United States of America*, 118(16), Article e2013833118. <https://doi.org/10.1073/pnas.2013833118>

- Steele, C. M. (1997). A threat in the air. How stereotypes shape intellectual identity and performance. *American Psychologist*, 52(6), 613–629. <https://doi.org/10.1037/0003-066X.52.6.613>
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69(5), 797–811. <https://doi.org/10.1037/0022-3514.69.5.797>
- Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 379–440). Academic Press. [https://doi.org/10.1016/S0065-2601\(02\)80009-0](https://doi.org/10.1016/S0065-2601(02)80009-0)
- Steffens, M. C., Niedlich, C., Beschoner, R., & Köhler, M. C. (2019). Do positive and negative stereotypes of gay and heterosexual men affect job-related impressions? *Sex Roles*, 80(9–10), 548–564. <https://doi.org/10.1007/s11199-018-0963-z>
- Steiger, J. H. (2004). Beyond the F test: Effect size confidence intervals and tests of close fit in the analysis of variance and contrast analysis. *Psychological Methods*, 9(2), 164–182. <https://doi.org/10.1037/1082-989X.9.2.164>
- Stephens, N. M., Hamedani, M. G., & Destin, M. (2014). Closing the social-class achievement gap: A difference-education intervention improves first-generation students' academic performance and all students' college transition. *Psychological Science*, 25(4), 943–953. <https://doi.org/10.1177/0956797613518349>
- Stephens, N. M., Townsend, S. S. M., Markus, H. R., & Phillips, L. T. (2012). A cultural mismatch: Independent cultural norms produce greater increases in cortisol and more negative emotions among first-generation college students. *Journal of Experimental Social Psychology*, 48(6), 1389–1393. <https://doi.org/10.1016/j.jesp.2012.07.008>
- Stevens, F. G., Plaut, V. C., & Sanchez-Burks, J. (2008). Unlocking the benefits of diversity. *The Journal of Applied Behavioral Science*, 44(1), 116–133. <https://doi.org/10.1177/0021886308314460>
- Stout, J. G., Dasgupta, N., Hunsinger, M., & McManus, M. A. (2011). STEMing the tide: Using ingroup experts to inoculate women's self-concept in science, technology, engineering, and mathematics (STEM). *Journal of Personality and Social Psychology*, 100(2), 255–270. <https://doi.org/10.1037/a0021385>
- Sullivan, J. N., Eberhardt, J. L., & Roberts, S. O. (2021). Conversations about race in Black and White US families: Before and after George Floyd's death. *Proceedings of the National Academy of Sciences of the United States of America*, 118(38), Article e2106366118. <https://doi.org/10.1073/pnas.2106366118>
- Swim, J. K., Hyers, L. L., Cohen, L. L., Fitzgerald, D. C., & Bylsma, W. H. (2003). African American college students' experiences with everyday racism: Characteristics of and responses to these incidents. *The Journal of Black Psychology*, 29(1), 38–67. <https://doi.org/10.1177/0095798402239228>
- Tankard, M. E., & Paluck, E. L. (2017). The effect of a Supreme Court decision regarding gay marriage on social norms and personal attitudes. *Psychological Science*, 28(9), 1334–1344. <https://doi.org/10.1177/0956797617709594>
- Tenet Health. (2019). *Join our team*. https://tenetway.tenethealth.com/docs/librariesprovider/tenetway/additional-resources/code_of_conduct92391817009045d6baf50264ef5d6dcd.pdf?sfvrsn=90a95d0c_0
- Tesler, M. (2020, June 9). The Floyd protests have changed public opinion about race and policing—Here's the data. *Washington Post*. <https://www.washingtonpost.com/politics/2020/06/09/floyd-protests-have-changed-public-opinion-about-race-policing-heres-data/>
- Trawalter, S., Driskell, S., & Davidson, M. N. (2016). What is good isn't always fair: On the unintended effects of framing diversity as good. *Analyses of Social Issues and Public Policy (ASAP)*, 16(1), 69–99. <https://doi.org/10.1111/asap.12103>
- Tsui, A. S., Egan, T., & O'Reilly, C. A., III. (1991). Being different: Relational demography and organizational attachment. *Academy of Management Best Papers Proceedings*, 8(1), 183–187. <https://doi.org/10.5465/ambpp.1991.4976867>
- Turban, D. B., & Keon, T. L. (1993). Organizational attractiveness: An interactionist perspective. *Journal of Applied Psychology*, 78(2), 184–193. <https://doi.org/10.1037/0021-9010.78.2.184>
- Turner, C. (2015). The business case for gender diversity. *The Huffington Post*. https://www.huffingtonpost.com/caroline-turner/the-business-case-for-gen_b_7963006.html
- Unkelbach, C., Koch, A., & Alves, H. (2021). Explaining negativity dominance without processing bias. *Trends in Cognitive Sciences*, 25(6), 429–430. <https://doi.org/10.1016/j.tics.2021.04.005>
- Unzueta, M. M., & Knowles, E. D. (2014). The “business case” for diversity may not by itself make the strongest case for diversity: What a profit-maximizing rationale for affirmative action ignores and why it matters. In K. M. Thomas, V. C. Plaut, & N. M. Tran (Eds.), *Diversity ideologies in organizations* (pp. 287–298). Routledge.
- van Dick, R., van Knippenberg, D., Hägele, S., Guillaume, Y. R. F., & Brodbeck, F. C. (2008). Group diversity and group identification: The moderating role of diversity beliefs. *Human Relations*, 61(10), 1463–1492. <https://doi.org/10.1177/0018726708095711>
- van Knippenberg, D., De Dreu, C. K. W., & Homan, A. C. (2004). Work group diversity and group performance: An integrative model and research agenda. *Journal of Applied Psychology*, 89(6), 1008–1022. <https://doi.org/10.1037/0021-9010.89.6.1008>
- van Knippenberg, D., Haslam, S. A., & Platow, M. J. (2007). Unity through diversity: Value-in-diversity beliefs, work group diversity, and group identification. *Group Dynamics*, 11(3), 207–222. <https://doi.org/10.1037/1089-2699.11.3.207>
- van Knippenberg, D., Homan, A. C., & van Ginkel, W. P. (2013). Diversity cognition and climates. In Q. M. Roberson (Ed.), *The Oxford handbook of diversity and work* (pp. 220–238). Oxford University Press.
- van Knippenberg, D., van Ginkel, W. P., & Homan, A. C. (2013). Diversity mindsets and the performance of diverse teams. *Organizational Behavior and Human Decision Processes*, 121(2), 183–193. <https://doi.org/10.1016/j.obhdp.2013.03.003>
- Verkuyten, M. (2005). Ethnic group identification and group evaluation among minority and majority groups: Testing the multiculturalism hypothesis. *Journal of Personality and Social Psychology*, 88, 121–138. <https://doi.org/10.1037/0022-3514.88.1.121>
- Vogel, D. (2005). Is there a business case for virtue? *The market for virtue: The potential and limits of corporate social responsibility* (pp. 16–45). Brookings Institution Press.
- von Hippel, C., Sekaquaptewa, D., & McFarlane, M. (2015). Stereotype threat among women in finance: Negative effects on identity, workplace well-being, and recruiting. *Psychology of Women Quarterly*, 39(3), 405–414. <https://doi.org/10.1177/0361684315574501>
- Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology*, 92(1), 82–96. <https://doi.org/10.1037/0022-3514.92.1.82>
- Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*, 331(6023), 1447–1451. <https://doi.org/10.1126/science.1198364>
- Walton, G. M., Murphy, M. C., & Ryan, A. M. (2015). Stereotype threat in organizations: Implications for equity and performance. *Annual Review of Organizational Psychology and Organizational Behavior*, 2(1), 523–550. <https://doi.org/10.1146/annurev-orgpsych-032414-111322>
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070. <https://doi.org/10.1037/0022-3514.54.6.1063>
- Williams, K. Y., & O'Reilly, C. A., III. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior*, 20, 77–140. https://ils.unc.edu/courses/2013_spring/inls285_001/materials/Williams.OReilly.1996.Diversity&demography.pdf

- Wilton, L. S., Apfelbaum, E. P., & Good, J. J. (2019). Valuing differences and reinforcing them: Multiculturalism increases race essentialism. *Social Psychological and Personality Science*, 10(5), 681–689. <https://doi.org/10.1177/1948550618780728>
- Wilton, L. S., Bell, A. N., Vahradyan, M., & Kaiser, C. R. (2020). Show don't tell: Diversity dishonesty harms racial/ethnic minorities at work. *Personality and Social Psychology Bulletin*, 46(8), 1171–1185. <https://doi.org/10.1177/0146167219897149>
- Wilton, L. S., Good, J. J., Moss-Racusin, C. A., & Sanchez, D. T. (2015). Communicating more than diversity: The effect of institutional diversity statements on expectations and performance as a function of race and gender. *Cultural Diversity & Ethnic Minority Psychology*, 21(3), 315–325. <https://doi.org/10.1037/a0037883>
- Wilton, L. S., Sanchez, D. T., Unzueta, M. M., Kaiser, C., & Caluori, N. (2019). In good company: When gender diversity boosts a company's reputation. *Psychology of Women Quarterly*, 43(1), 59–72. <https://doi.org/10.1177/0361684318800264>
- Windscheid, L., Bowes-Sperry, L., Kidder, D. L., Cheung, H. K., Morner, M., & Lievens, F. (2016). Actions speak louder than words: Outsiders' perceptions of diversity mixed messages. *Journal of Applied Psychology*, 101(9), 1329–1341. <https://doi.org/10.1037/apl0000107>
- Wittenberg-Cox, A. (2014). It's time for a new discussion on "women in leadership". *Harvard Business Review*. <https://hbr.org/2014/03/its-time-for-a-new-discussion-on-women-in-leadership>
- Wolsko, C., Park, B., Judd, C. M., & Wittenbrink, B. (2000). Framing interethnic ideology: Effects of multicultural and color-blind perspectives on judgments of groups and individuals. *Journal of Personality and Social Psychology*, 78(4), 635–654. <https://doi.org/10.1037/0022-3514.78.4.635>
- Wuensch, K. L. (2009). *Confidence intervals for squared effect size estimates in ANOVA: What confidence coefficient should be employed?* <http://core.ecu.edu/psyc/wuenschk/docs30/CI-Eta2-Alpha.doc>
- Zou, L., & Cheryan, S. (2015). When Whites' attempts to be multicultural backfire in intergroup interactions. *Social and Personality Psychology Compass*, 9(11), 581–592. <https://doi.org/10.1111/spc3.12203>

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