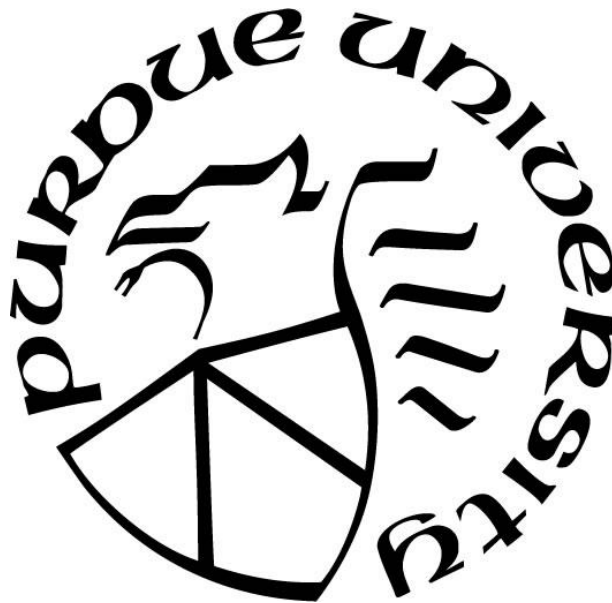# I LIKE WHAT I SEE: EXPLORING THE ROLE OF MEDIA FORMAT ON BENEFITS OF ALLYSHIP AMONG BLACK WOMEN

by

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A Thesis

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To my family and my pets

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ABSTRACT

Author: Rhodes, Virginia, L. MS
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Science, technology, engineering, and math (STEM) researchers and organizations recognize that a large gender and racial disparity exists in these fields. However, individuals with intersectional identities (i.e., Black women) have unique experiences of bias that preclude them from entering STEM careers and feeling a sense of belonging. As such, featuring an employee that demonstrates allyship for Black women on an organization's website can be a useful identity-safe cue to signal that a Black woman's identity will be valued and promote the recruitment of Black women in STEM organizations. Yet, research indicates that Black women who are high in stigma consciousness (i.e., sensitive to potential discrimination based on their identity) do not trust or believe a White woman ally presented in a written profile cares about helping Black women. The current study found that presenting an ally in a video profile mitigated these negative effects of stigma consciousness, and increased Black women's anticipated belonging and trust in a fictional STEM organization via higher perceptions of allyship. Theoretical implications for research, practical implications for organizations, and future research avenues to explore are discussed.

INTRODUCTION

Background

Organizations increasingly strive to recruit competent and demographically diverse employees, specifically in science, technology, engineering, and math (STEM) fields where there is a large gender and race disparity (NSF, 2015). White men occupy the majority (49%) of these positions. In contrast, Black women are markedly underrepresented; although they comprise 6% of the U.S. workforce, they make up only 2% of employees in the STEM fields (NSF, 2015). This lack of representation of ethnic and gender minorities coupled with stereotypes about characteristics of individuals in STEM fields may cause Black women to feel that they would not be welcomed and consequently shy away from joining STEM organizations (Avery et al., 2013; Carli, Alawa, Lee, Zhao, & Kim, 2016; Diekman, Brown, Johnston, & Clark, 2010). Although Black women experience bias in a unique way due to their dual stigmatized identities (being Black and a woman), previous diversity research has almost exclusively focused on either Blacks or women, ignoring the intersection of the two (Mohr & Purdie-Vaughns, 2015; Remedios & Snyder, 2015).

Not only is there a need for more research on intersectional identities, diversity practitioners need to develop and test effective techniques to recruit Black women into STEM fields and organizations in order to combat the dramatic underrepresentation. For instance, previous work has found that Black women feel most welcome in an organization that features Black female scientists as identity-safe cues (a cue signaling Black women's identities will be valued; Pietri, Johnson, & Ozgumus, 2018). Unfortunately, featuring Black women on organization websites may not always be possible given the low numbers of Black women in STEM. In such cases, a White woman ally can also act as an identity-safe cue for some Black

women (Pietri et al., 2018). However, this previous work found that Black women with a high expectation of experiencing unfair treatment due to their identities (i.e., high stigma consciousness; Pinel, 1999), did not trust the White woman ally truly cares about helping Black women (Pietri et al., 2018). It is worth noting that this past work relied on a written profile to feature the White woman ally, which may have lacked critical cues about the ally's personality and genuineness.

The current work, therefore, explores whether a video profile of a White woman ally at an organization relative to an identical written transcript, encourages Black women to trust the ally more, and increases their sense of belonging and interest in the organization, particularly for Black women with high stigma consciousness. In particular, the current study addresses the gap in literature on intersectional identities as well as expanding on the question of (a) whether a White woman ally would function better as an organizational identity-safe cue in video versus written format and (b) which mechanisms result in video profiles functioning as better identity-safe cues than written profiles.

The Experiences of Black Women in STEM Organizations

Both women and Black individuals are negatively stereotyped in STEM, leading Black women with dual-stigmatized identities to experience unique adversity in STEM organizations. (Williams, Phillips, & Hall, 2014). Women generally have to walk a tightrope between being viewed as equally competent to men while also maintaining femininity in the workplace (Williams et al., 2014), and when women behave in counterstereotypic ways, such as acting masculine, they tend to face discrimination and are viewed unfavorably (Heilman, Wallen, Fuchs, & Tamkins, 2004; Rudman & Fairchild, 2004; Rudman, Moss-Racusin, Phelan, & Nauts, 2011). For instance, in a study conducted by Rudman and Glick (1999), participants rated a woman who displayed more masculine, agentic traits as having fewer social skills than an agentic man. Moreover, even

though participants viewed the agentic woman as being equally competent as the agentic man, participants were less likely to hire the agentic woman because of her perceived lack of social skills. Similarly, when women were shown to be successful in a male gendered-typed job, they were liked less and viewed negatively compared to equally successful men (Heilman et al., 2004).

Women are particularly discriminated against in historically White-male dominated STEM fields and organizations (Ginther et al, 2011). As one compelling example, STEM professors rated a male applicant for a laboratory manager position as more competent, hirable, and worthy of mentorship than a female applicant with an identical application, and this effect occurred regardless of faculty participants' own gender (Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012). Likewise, when asked to consider requests from prospective students seeking mentorship, professors were far more responsive to White males than females or minority students, particularly in higher-paying disciplines such as engineering and computer science (Milkman, Akinola, & Chugh, 2015).

When race is considered along with gender, individuals with intersectional identities face a double dosage of harassment and discrimination, experiencing both sexual and ethnic prejudice (Berdahl & Moore, 2006). Black women in leadership positions are evaluated more negatively than Black men or White women when an organization experiences failure (Rosette & Livingston, 2012), and Black women report higher rates of harassment than White individuals or their male counterparts (Berdahl & Moore, 2006). Compared to White men and women and Black men, Black women also report confronting more challenges and having to work harder to be perceived as legitimate and capable (Thomas & Hollenshead, 2001; Williams et al., 2014). Additionally, Black women experience unfair treatment for being both a woman and a minority, and are not viewed as prototypic of either (Sesko & Biernat, 2010). That is, when individuals think of the prototypical

Black individual or woman, they picture a Black man or White woman respectively. Consequently, Black women suffer from an invisibility bias where they go unnoticed and unheard (Purdie-Vaughns & Eibach, 2008). In one experimental demonstration of this phenomenon, participants experienced more difficulty remembering the faces of Black women and correctly credited the displayed statements to Black women compared to both White men and women, and Black men (Sesko & Biernat, 2010).

Social Identity Threat

Individuals with dual stigmatized identities, such as Black women, are at heightened risk for social identity threat in STEM fields and organizations where there are threatening cues and where their social identity tends to be negatively stereotyped (Cheryan, Siy, Vichayapai, Drury, & Kim, 2011; Murphy, Steele, & Gross, 2007; Shapiro & Williams, 2012). *Social identity* is an individual's perceived self-image that arises from the social groups to which they belong (Tajfel & Turner, 1986), and *social identity threat* occurs when individuals believe one of their identities will be devalued or unwelcomed when entering a situation or environment (Murphy & Taylor, 2012; Pietri et al., 2018; Tajfel & Turner, 1986). Moreover, individuals that are part of a stigmatized group or groups will search for situational cues that signify whether their identity or identities will be devalued in a particular setting (Kaiser, Vick, & Major, 2006; Murphy & Taylor, 2012). As Black women look at organizational websites or recruitment materials, a variety of information may act as a cue suggesting that their identities will be devalued. For example, in an organization's recruitment materials there may be a lack of gender and racial representation among employees and upper management, ambiguous hiring policies, or little to no statements supporting diversity, leading Black women to feel concerned that others will not value them in an organization (Avery & McKay, 2006; Avery et al., 2013; Walton, Murphy, & Ryan, 2015).

Social identity threat also has been linked to a variety of negative consequences, including decreased sense of self-efficacy and competence, underperforming in certain domains, and lowered self-esteem (Murphy & Taylor, 2012; Steele, Spencer, & Aronson, 2002; Walton et al., 2015). These threats can also lead to burn out and mental exhaustion, which may result in individuals feeling less committed to their jobs and having higher intentions of leaving (Hall, Schmader, & Croft, 2015). Particularly relevant to the current proposed study, social identity threat also results in reduced anticipated belonging and trust, or the beliefs that one will not feel comfortable or accepted in a particular environment or organization (Murphy et al. 2007; Murphy & Taylor, 2012; Purdie-Vaughns, Steele, Davies, Diltmann, & Crosby, 2008). Concerns about belonging may in turn negatively impact an individual's desire to pursue in a specific professional or academic field or seek out employment in a specific company (Murphy et al., 2007).

Important individual differences moderate the extent to which individuals experience social identity threat. A critical moderator of social identity threat is *stigma consciousness* or the dispositional tendency for individuals to be concerned that they will be devalued due to their stigmatized identity(s) (Pinel, 1999). For example, Brown and Lee (2005) found that stigma consciousness was negatively related to academic achievement. Specifically, students with academically stigmatized identities (Blacks and Hispanics) who were high in stigma consciousness had lower grade point averages compared to those low in stigma consciousness (Brown & Lee, 2005). Additionally, relative to those with low stigma consciousness, Black women high in stigma consciousness were more likely to anticipate not belonging or feeling comfortable in a STEM organization (Pietri et al., 2018). Therefore, stigma consciousness increases vulnerability to social identity threat and belonging concerns.

Reducing Threats Using Identity-Safe Cues

One way to mitigate social identity threat and its associated negative consequences is to signal that an identity is welcomed, respected, and valued in an organization (Cohen, Aronson, & Steele, 2016; Pietri et al., 2018). These signals are known as *identity-safe cues* (also sometimes called diversity cues) and help to reduce social identity threat (Murphy et al., 2007; Murphy & Tayler, 2012). For example, Nguyen and Ryan (2008) found that telling participants that a test is not gender-biased was successful at alleviating social identity threat and improving test performance. In addition to verbal reassurance, increasing visibility and representation, or the "critical mass," of an underrepresented group has also been shown to increase identity safety and sense of belonging in a threatening environment (Murphy et al., 2007). Importantly, identity-safe cues in organizational recruitment materials (e.g., on websites) enhance organizational attractiveness and encourage a greater interest in working at a company for individuals who belong to stigmatized groups (Walker, Feild, Bernerth, & Becton, 2012). For instance, organizations can signal identity-safety by expressing their commitment to diversity in mission statements on company websites and other recruiting materials (Walton et al., 2015). Indeed, Williams and Bauer (1994) found that a recruitment brochure for a fictitious company that included a diversity statement led to higher organizational attraction, especially for non-Whites and women.

Another effective identity-safe cue for women and ethnic minorities that organizations can use in recruitment advertisements is pictorial diversity (Avery & McKay, 2006; Perkins, Thomas, & Taylor, 2000). As the name suggests, pictorial diversity involves the inclusion of multiple races, ethnicities, and genders in visual representations of a company (e.g. organizational pamphlets, websites). One related experiment found that when minority members were portrayed in recruitment advertisements, Black and Hispanic individuals were more attracted to and interested in working at the company (Avery, Hernandez, & Hebl, 2004). Similarly, female math, science,

and engineering majors who viewed a conference video with a balanced ratio of men to women felt an increased sense of belonging and desire to participate in the conference compared to those who viewed an unbalanced STEM conference video (Murphy et al., 2007).

A particularly powerful identity-safe cue that also can be incorporated in recruitment materials are role models, which are individuals with whom one feels similar and aspires to be like (Gibson, 2004). Beyond simply having pictures demonstrating organizational diversity (i.e., pictorial diversity), when organizations employ a role model as an identity-cue, they highlight a specific individual, and feature information about the person that may make it easier to identify with that individual. Across various studies, researchers have found that role models are effective at alleviating social identity threat (Dasgupta, 2011; Drury, Siy, & Cheryan, 2011; Pietri et al., 2018). For instance, even short exposure to a successful female scientist can increase women's sense of belonging and performance in STEM fields (Stout, Dasgupta, Hunsinger, & McManus 2011). Importantly, for a successful individual to act as an identity-safe cue and role model it is critical that individuals feel similar to that individual (Drury et al., 2011).

Although a variety of research examines identity-safe cues in organizations and recruitment materials, many of these explorations have been limited by only investigating these cues with regard to gender or race, rather than the combination of the two. For example, much of the research examining role models as identity-safe cues have looked at the ability of White women to signal identity safety with majority White samples (Stout et al., 2011). This presents a problem because a White woman may not function as a successful role model for women with more complex intersectional identities (e.g., Black women). The intersectionality literature posits two theories of identity that may explain why this is the case. First, the *ethnic-prominence perspective* suggests that White women may not act as a role model for Black women because Black women tend to be

more sensitive to discrimination from their racial than from their gender identity (King, 2003; Levin, Sinclair, Veniegas, & Taylor, 2002; Remedios, Chasteen, & Paek, 2012). The *double jeopardy perspective* asserts that Black women experience unique biases due to their dual stigmatized identities, and focusing on simply one identity is not enough (Klonoff, Landrine, & Scott, 1995; Sesko & Biernat, 2010; Williams et al., 2014). This perspective suggests that an effective identity-safe cue must signal that a Black woman's race and gender will be respected. Importantly, both perspectives assert that at a minimum a cue must signal that race is valued. Therefore, from both theoretical perspectives, a White woman will not function as a successful identity-safe cue or role model for Black women.

One recent experiment examined the importance of intersectional identities for identity-safe cues in an organization and found support for both perspectives (Pietri et al., 2018). In this research, Pietri et al. (2018) presented Black female participants with a fictional STEM company and either no profile or the profile of a scientist (Black man, Black woman, or White woman) that worked at the company, and examined anticipated sense of belonging and trust at the company. Consistent with the *ethnic-prominence* perspective, the results indicated that relative to viewing no profile or the White female scientist profile, both the Black female and Black male scientist enhanced predicted belonging and trust at the company. In contrast, the White female profile did not promote belonging at a fictional STEM company relative to the no profile condition for Black female participants and therefore, was not an effective identity-safe cue. Additionally, stigma consciousness was found to moderate these results. In all conditions except the Black female scientist condition, stigma consciousness related to lower anticipated belonging and trust at the company. That is, those with high stigma consciousness continued to report high anticipated belonging and trust when exposed to the Black female scientist profile, but not when exposed to

the other profiles. This finding is in line with the *double jeopardy perspective* where participants high in stigma consciousness were protected only after viewing the Black female scientist profile.

One way that White women may be a more successful identity-safe cue and role model for Black women is by expressing allyship. *Allies* are defined as being members of the dominant group who value the importance of decreasing discrimination and actively work towards ending social inequality (Brown & Ostrove, 2013). These individuals strive to confront not only their own biases, but the biases and prejudices of others, and in turn play an important role in prejudice reduction (Ashburn-Nardo, 2018). Although allyship has been examined across various domains (Houghton, 2001; Reason, Scales, & Roosa Millar, 2005), few studies have connected allyship to employee recruitment and identity-safe cues. Presenting an ally in recruitment materials may be useful for signaling that organizations will be welcoming to underrepresented groups, and the ally may also function as a role model (Avery et al., 2013).

For example, Pietri et al. (2018) examined using allyship to improve the effectiveness of White women as identity-safe cues. Indeed, they found that a White woman who explicitly identified herself as an ally of Black women acted as an effective identity-safe cue that led to a higher sense of belonging and trust at the STEM company than viewing no profile for participants on average. Although these results were initially promising, stigma consciousness was again an important moderator. Those who were average or low in stigma consciousness perceived the White woman ally as caring about and more willing to help Black women (i.e., being an ally), which in turn encouraged belonging and trust at the STEM company. In contrast, those high in stigma consciousness did not trust that the White woman ally cared about helping Black women, and hence, she did not promote belonging and trust for them. This study shows that White women explicitly expressing allyship can be effective identity-safe cues for certain people (i.e., those low

in stigma consciousness), but for those high in stigma consciousness another technique is required for communicating allyship.

Visual versus Written Media

It is important to note that Pietri et al. (2018) and similar studies of allyship have relied on written testimonials. For example, Brown and Ostrove (2013) asked participants about their perceptions of allies using a written survey, but did not include pictures or videos. However, the format of the ally material may have an impact on the ally's effectiveness as an identity-safe cue. It may be easier to pick up on subtle cues that convey allyship via video rather than in a written format. In particular, nonverbal cues such as physical appearance or tone of voice may allow individuals to make inferences about the person delivering the message (Freeman & Ambady, 2011). For instance, Chaiken and Eagly (1983) showed that subtle personality cues may be better conveyed in visual than written format. These researchers found that when participants viewed a message delivered by a likeable communicator via written or video format, participants found the likeable communicator to be more persuasive when presented via video or audio (Chaiken & Eagly 1983). Consequently, the likability of an ally may be difficult to perceive in written format, and Black women may not be persuaded that the ally truly cares about helping Black women, which in turn could lead to decreased predicted belonging and trust in the organization.

Moreover, researchers have demonstrated that Black individuals in particular are able to quickly pick up on visual and audio cues that signal low prejudice and high allyship (Borkenau, & Liebler, 1993; Dovidio, Hebl, Richeson, & Shelton, 2006). Black individuals also have been found to accurately detect racial attitudes from brief, nonverbal behaviors (Richeson & Shelton, 2005). Indeed, intergroup relations researchers posit that during intergroup interactions majority-group members may desire to appear non-prejudiced, but their nonverbal behaviors may indicate

otherwise; after interacting with a majority-group member, minority-group members instead like the majority-group member less and perceive them as being high in social dominance (Dovidio et al., 2006). Thus, Black women high in stigma consciousness may need to view White women allies in video format, with the rich visual and audio cues signaling allyship and low prejudice, to truly believe she is an ally and feel a greater sense of belonging and trust. Without those visual cues, Black women may find White women allies to be cold and disingenuous, even if in reality they are not.

Although previous work has not explored whether allies are more believable in a written or video format, initial evidence does suggest that videos may serve as better identity-safe cues in organizations, particularly when featuring a member of a different social group (Walker, Feild, Giles, Armenakis, & Bernerth, 2009). In particular, Walker and colleagues found that when written testimonials given by White employees compared to Black employees were included on recruitment websites, White participants were more attracted to the organization and perceived the information as more credible. However, these differences disappeared when those testimonials were delivered via video, possibly due to White participants viewing the Black employees as more likeable and less stereotypical in the video testimonials than the written testimonials. Therefore, media format may play a significant role in determining likeability and genuineness.

Current Study

The aim of the current research is to examine the role that media format plays in increasing the effectiveness of White women allies as identity-safe cues, as well as expand on the intersectionality literature. An additional goal is to identify what mechanisms may make video profiles more effective identity-safe cues compared to written profiles. The current study is a between-subjects design with four profile conditions: a White woman non-ally profile in written

format (i.e., the baseline condition), a White woman non-ally profile in video format, a White woman ally in written format, and a White woman ally in video format. I will examine which condition (video versus written) frames the White woman ally as a more beneficial identity-safe cue, and which condition increases anticipated sense of belonging and trust at a fictional STEM organization. Therefore, my primary outcomes are sense of belonging and trust at the company as well as job pursuit intentions and organizational attractiveness (see Figure 1). Job pursuit intentions and organizational attractiveness were not examined in Pietri et al. (2018); however, they are important from an organizational standpoint to determine whether this type of identity-safe cue will increase an individual's willingness to join a company.
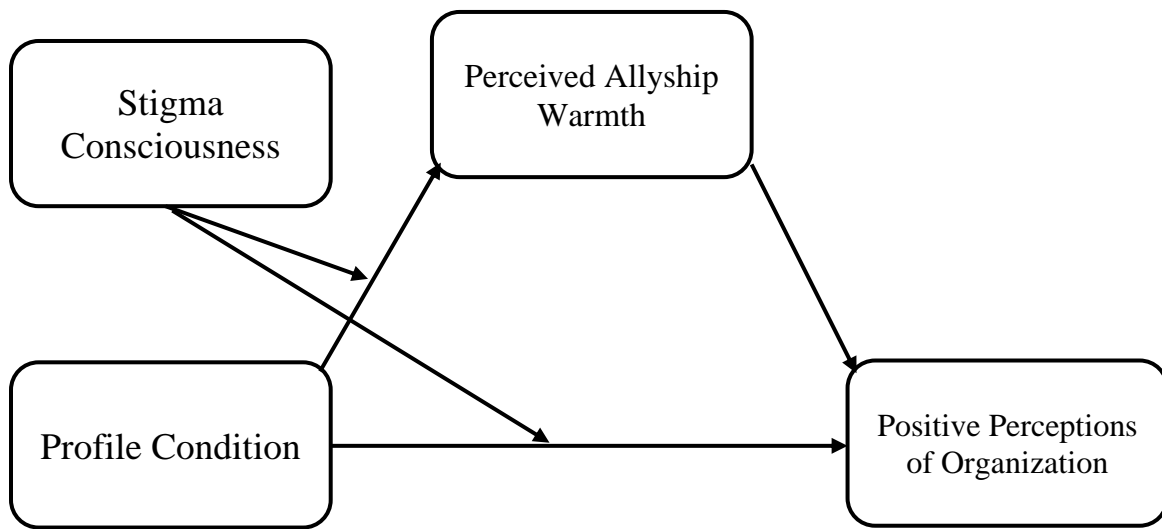

Figure 1: Proposed Theoretical Model

Hypothesis 1: Participants will report the most anticipated belonging and trust, highest job pursuit intentions, and highest organizational attractiveness in the White woman ally video condition and the lowest perceptions in the non-ally written condition.

Because participants will be exposed to multiple visual and audio cues signaling the scientists' personality in the video versus in the written condition, I also predicted that there would be important condition differences for perceptions of the scientist.

Hypothesis 2: There will be condition differences on perceived allyship and warmth, such that participants who view the video profile of the White woman ally will report the highest perceived allyship and warmth, and participants who view the written profile of the non-ally will report the lowest perceived allyship and warmth.

Media format may be important for certain types of individuals, in this case those high in stigma consciousness. Individuals high in stigma consciousness may perceive the White woman ally as cold or disingenuous in written format, and need additional cues to signal warmth and genuineness. Therefore, participants' level of stigma consciousness may moderate the effect of the profile condition on perceptions of the scientist and the organization.

Hypothesis 3: The effect of profile condition on perceptions of the scientist and the organization will be moderated by stigma consciousness. That is, compared to participants low in stigma consciousness, participants high in stigma consciousness will report more negative perceptions of the White woman scientist and organization, unless they view the White woman ally in video format.

Finally, I predict that perceived allyship and warmth will be important mediators that may explain the effect of profile condition on perceptions of the organization, particularly among participants who are high in stigma consciousness.

Hypothesis 4: Among participants high in stigma consciousness, the effect of profile condition on positive perceptions of the organization will be mediated by perceived allyship and warmth.

This research expands the intersectional identity and identity-safety literature, and could show that visual identity-safe cues, although costly, may increase sense of belonging and trust in organizations as well as increase intentions of Black women to pursue a job in an organization, particularly in STEM fields where there is such a large race and gender disparity.

METHODS

Design

A between-subjects, randomized design with four profile conditions was used (non-ally written condition vs. non-ally video condition vs. ally written condition vs. ally video condition).

Power Analysis

To determine the required sample size needed, we conducted an a priori power analysis using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009). We selected F-test as the test family with 0.80 power and 4 groups for the 4 conditions. As the current research is an extension of Pietri et al.'s (2018) Study 2, we used the effect size ($\eta^2=0.027$) from that study. These analyses revealed that an *N* of approximately 400 would be needed to achieve statistical power.

Participants

Four-hundred and thirty-seven participants were recruited from Amazon's Mechanical Turk marketplace. For the purposes of this study, we utilized the panel services offered to recruit participants who identified as a Black woman over the age of 18. In exchange for completing the study, participants received $1.50 in compensation.

Stimulus Materials

We presented participants with a written or video profile of a White female scientist from the fictional STEM company "ComTech", who either did or did not emphasize the importance of increasing Black women in STEM (i.e., ally manipulation). The profiles were introduced as an interview with an employee at the organization, who is a top research associate, oversees several

research assistants, and is leading multiple research projects. The ally and non-ally profiles were identical, except the ally profile included additional information demonstrating that the White female scientist values diversity, is working to combat discrimination, and actively recruits Black women to work on her research projects. The video profiles featured an interview with the scientist (who in reality was an actress that had been identified as someone with a likeable disposition, was an ally for Black women, and importantly, demonstrated no preference for Whites or Blacks on the Implicit Association Test). The scientist looked into the camera and answered questions about her experiences at the company. The questions were displayed in written format on the screen (e.g., "What has been your best experience at ComTech?" "What is a current research project you are working on?"), and then the scientist answered those questions into the camera. Thus, no other actor or interviewer was present in the video (refer to Appendix C for stimulus materials).

Pilot Study to Test Materials

As previous research has shown, we needed to be very careful when creating the video profile to make sure the ally was not subtly sending the wrong message. Therefore, prior to the current study, we pilot tested the video of the White female scientist after it was created, with 50 Mechanical Turk participants paid $1 to ensure the actress appeared warm, likable, and genuine. We asked pilot participants to watch the video of the White female scientist and rate her on warmth, likeability, and genuineness (e.g., "The scientist appears warm [likable, genuine]." For statistical analyses, I examined the means to make sure they are high and conducted one-sample t-tests comparing the means to the scale mid-point to ensure they were significantly above the mid-point. The written profiles contained the same information as the video profiles, but were be in written format.

Pilot Study Results

Six participants (12%) failed the attention check questions indicating that they did not watch the video. Forty-four participants (56.7% male, 40.9% female, 2.3% other; 79.5% White, 6.8% Black, 6.8% Hispanic, 2.3% Asian, 2.3% Native Hawaiian or Pacific Islander, 2.3% multiracial) succeeded the attention check questions and were included in the statistical analysis. A one-sample t-test was conducted and the actress was rated significantly above the scale midpoint (3) on all items. That is, the actress was rated as being very **warm** (M=4.05, SD=0.68), **genuine** (M=4.20, SD=0.70), **likeable** (M=4.30, SD=0.63), **kind** (M=4.09, SD=0.60), **sincere** (M=4.16, SD=0.61), and **good-natured** (M=4.25, SD=0.58). These results indicate that our actress was not conveying the wrong message in the video or displaying any unlikeable non-verbal cues.

Measures

Dependent Variables

The participants completed a series of items that assessed their impressions of the scientist and anticipated feelings regarding working at a fictional STEM company. Refer to Tables 1-3 for reliability scales of all measures.

Table 1: Reliability Scales for Dependent Variables

Dependent Variable	Scale Name	Example Item	Cronbach's a
Anticipated Belonging	Walton & Cohen's (2007) Measure of Belonging; Good, Rattan, & Dweck's (2012) Math Sense of Belonging	"I would belong in this company."	0.88
Anticipated Trust & Comfort	Purdie-Vaughns, Steele, Davies, Ditlmann, & Crosby's (2008) Trust & Comfort Toward the Company Setting	"I think I would trust other colleagues to treat me fairly at this company."	0.94
Job Pursuit Intentions	Highhouse, Lievens, & Sinar's (2003) Intentions to Pursue	"I would accept a job offer from this company."	0.91
Organization Attractiveness	Highhouse, Lievens, & Sinar's (2003) Organization Attraction Scale	"This company would be attractive to me as a place for employment."	0.91

Table 2: Reliability Scales for Mediator Variables

Mediator Variable	Scale Name	Example Item	Cronbach's a
Perceived Allyship	Pietri, Johnson, & Ozgumus' (2018) Perceived Allyship	"Most likely this person cares about issues related to Black women."	0.94
Respond Without Prejudice - Internal	Plant & Devine's (1998) Internal & External Motivation to Respond Without Prejudice	"The scientist is personally motivated by their beliefs to be non-prejudiced toward Black people."	0.84
Respond Without Prejudice – External	Plant & Devine's (1998) Internal & External Motivation to Respond Without Prejudice	"The scientist is trying to act non-prejudiced toward Black people because of pressure from others."	0.85
Warmth	N/A	"The scientist appears warm."	0.93

Table 3: Reliability Scale for Moderator Variable

Moderator Variable	Scale Name	Example Item	Cronbach's a
Stigma Consciousness	Pinel's (1999) Stigma Consciousness	"When interacting with people, I feel like they interpret all of my behaviors in terms of my race and gender."	0.79

Anticipated belonging

Participants were asked to imagine working at ComTech and indicate their agreement with eight items to assess their anticipated sense of belonging at the fictional STEM company (1 = strongly disagree, 5 = strongly agree). Three items were chosen from Walton and Cohen's (2007) measure of belonging (e.g., "I would belong in this company") and five were adapted from Good, Rattan, and Dweck's (2012) measure of belonging (e.g., "At this company, I would feel respected"). This set of items was used previously by Pietri et al. (2018) to assess belonging at a fictional STEM organization.

Anticipated trust and comfort

Participants also indicated their level of agreement with eleven items adapted from Purdie-Vaughns, Steele, Davies, Ditlmann, and Crosby's (2008) Trust and Comfort Toward the Company Setting scale (1 = strongly disagree, 5 = strongly agree). These items assessed participants anticipated sense of trust at the company (e.g., "I think I could "be myself" at this company"; "I think I would be treated fairly by colleagues").

Job pursuit intentions

Participants also indicated their level of agreement (1 = strongly disagree, 5 = strongly agree) with five statements taken from Highhouse, Lievens, and Sinar's (2003) Intentions to

Pursue Scale (e.g., "I would accept a job offer from this company"; "I would make this company one of my first choices as an employer").

Organization attractiveness

Similarly, participants indicated their agreement (1 = strongly disagree, 5 = strongly agree) with five items taken from Highhouse, Lievens, and Sinar's (2003) Organizational Attractiveness Scale (e.g., "For me, this company would be a good place to work"; "This company would be attractive to me as a place for employment").

Mediators

Perceived allyship

Pietri et al. (2018) measured perceived allyship using a two-item scale assessing the perceived allyship of the scientist with Black women (e.g., "Most likely this person wants to help Black women succeed in the sciences"). Participants responded to this measure and indicated their agreement (1 = strongly disagree, 5 = strongly agree).

Research on allies also suggests that allies are individuals who are strongly motivated to confront biases and prejudices (Ashburn-Nardo, 2018). Rather than needing an incentive to appear anti-prejudice, they naturally desire to fight discrimination. Therefore, we also used 10 items adapted from Plant and Devine's (1998) Internal and External Motivation to Respond Without Prejudice to measure perceived allyship. Participants indicated their agreement (1 = strongly disagree, 5 = strongly agree) with 5 items measuring external motivation (e.g., "The scientist attempts to appear non-prejudiced toward Black people in order to avoid disapproval from others") and 5 items measuring internal motivation (e.g., "The scientist attempts to act in non-prejudiced ways toward Black people because it is personally important to them").

Warmth

Participants rated how warm they perceived the White female scientist to be (1 = strongly disagree, 5 = strongly agree). Sample items for this measure are: ("The scientist appeared sincere"; The scientist was warm").

Moderator

Stigma consciousness

Pietri et al. (2018) originally measured participant's level of stigma consciousness in regards to being a woman, a Black individual, or a Black woman using items from Pinel (1999). Results indicated that there was a similar pattern in regard to all three types of stigma consciousness, so they recommended using the combined gender-race stigma consciousness scale. Therefore, we also utilized the combined gender-race stigma consciousness scale for this study (the same scale that was employed in Experiment 2 in Pietri et al., 2018). Participants indicated their level of agreement with 5 items (1 = strongly disagree, 5 = strongly agree) measuring how much participants' race and gender influence interactions with others (e.g., "Stereotypes about Black women have not affected me personally [R]"; "I never worry that my behaviors will be viewed as stereotypical of Black women [R]").

Procedure

The current study followed the same paradigm as Pietri et al. (2018) where participants were first shown the homepage of a fictional company ("ComTech"). After viewing the homepage, participants were randomly assigned to view one of the four profile conditions that all featured a White female—a non-ally written profile, a non-ally video profile, an ally written profile, or an ally video profile. After viewing the profile, participants completed a series of surveys designed

to assess the positive perceptions of the organization and positive perceptions of the scientist. Participants first completed the warmth measure, followed by the internal and external motivation to respond without prejudice measure and these two measures were presented in a random order. Then, the participants completed all measures related to perceptions of the organization and these were also presented in a random order. Lastly, participants completed the measure of stigma consciousness. This was to ensure that participants were not primed before viewing the profiles, which could have affected participants' perceptions.

RESULTS

Preliminary Analyses

An initial look at the participants revealed that thirty-three participants did not complete the survey and were excluded from further analyses. I then screened the remaining sample to ensure that participants met the selection criteria (i.e., identified as a Black female) and either watched or read the scientist profile they were assigned to (i.e., they passed two attention checks). This screening revealed that twenty-two participants identified as a race other than Black or African American, and three identified as male, however this did not differ by condition, χ^2 (3, $N=404$) = 6.79, $p=0.079$. Additionally, nineteen participants did not pass the attention checks, and these excluded participants did not significantly differ by condition, χ^2 (3, $N=379$) = 4.32, $p=0.229$. After excluding participants, the final sample size was 366. Although this was below the desired sample size, a power sensitivity analysis showed with this sample size we could detect an effect of $f = 0.17$ at 80% power. Preliminary analyses also show that stigma consciousness did not vary across condition, χ^2 (60, $N=366$) = 58.70, $p=0.524$.

Descriptive Statistics

I first calculated correlations for all measures (see Table 4). There was a high correlation between anticipated belonging and trust and comfort ($r=0.81$, $p < 0.001$), and organizational attraction and intentions to pursue a job at ComTech ($r=0.83$, $p < 0.001$). Similarly, Pietri et al. (2018) found that anticipated belonging and trust and comfort were highly correlated and created a composite measure. Following that, I also created a composite measure after computing the z-scores. Since organizational attraction and intentions to pursue a job were also highly correlated and touch on a similar construct, I created a composite measure for those two measures as well.

The z-scores for anticipated belonging and trust and comfort were averaged to create a composite measure of *belonging and trust.* Similarly, the z-scores for organizational attraction and intentions to pursue a job were averaged to create a composite measure of *attraction.* These composite measures were used in the subsequent analyses.

Table 4: Correlations Between All Variables

	1	2	3	4	5	6	7	8
1. Belonging	--							
2. Trust & Comfort	.81**	--						
3. Organizational Attraction	.70**	.74**	--					
4. Pursuit Intentions	.70**	.80**	.83**	--				
5. Perceived Allyship	.44**	.45**	.40**	.43**	--			
6. Internal Motivation	.42**	.46**	.38**	.43**	.64**	--		
7. External Motivation	-.30**	-.31**	-.21**	-.23**	-.31**	-.27**	--	
8. Warmth	.40**	.47**	.35**	.41**	.34**	.36**	-.28**	--
9. Stigma Consciousness	-.29**	-.31**	-.19**	-.22**	-.16*	-.08	.02	-.14*

**$p<0.001$, *$p<0.01$

Primary Analyses

Main Effects of Condition

Organizational measures

To test Hypothesis 1 that there would be condition differences on all outcomes and to see which profile related to the most positive outcomes, I ran a between-subjects ANOVA predicting each of the dependent variables. More specifically, I compared the non-ally video condition, the ally written condition, and the ally video condition to the baseline non-ally written condition. First, predicting *belonging and trust*, I found a significant effect of condition, $F(3,362)=3.02$, $p=0.030$, $\eta_p^2=0.024$. The ally written profile resulted in the highest belonging and trust followed by the ally video profile, the non-ally video profile, and the non-ally written profile (see Table 5). I also ran Tukey HSD post-hoc tests to compare effects across conditions.

Table 5: Descriptive Statistics for Dependent Variables; *M*(*SD*)

	Non-ally written profile (n=92)	Non-ally video profile (n=93)	Ally written profile (n=91)	Ally video profile (n=90)
Belonging & Trust	-0.17 (0.91)	-0.08 (0.84)	0.18 (1.06)	0.15 (0.97)
Attraction	-0.15 (0.93)	-0.10 (0.86)	0.10 (1.06)	0.17 (0.94)
Perceived Allyship	3.04 (0.85)	3.03 (1.00)	4.20 (0.86)[a,b]	4.14 (0.96)[a,b]
Warmth	4.45 (0.59)	4.40 (0.62)	4.62 (0.51)[b]	4.44 (0.60)
Internal Motives	3.32 (0.67)	3.30 (0.68)	4.13[a,b] (0.80)	3.92 (0.80)[a,b]
External Motives	2.82 (0.81)	2.81 (0.82)	2.48 (0.97)	2.46 (1.03)[a,b]

a = significantly different (*p*<0.05) from the non-ally written profile; b = significantly different (*p*<0.05) from the non-ally video profile

Compared to the non-ally written profile, the ally video profile slightly, but not significantly increased belonging and trust, Mean Difference=0.33, *SE*=0.14, 95% CI:[-0.69,0.04], *p*=0.095, *d*=0.35, the ally written profile also marginally, but not significantly, increased *belonging and trust*, Mean Difference = 0.35, *SE* = 0.14, 95% CI:[-0.71, 0.01], *p*=0.064, *d*=0.35, and the non-ally video profile had no effect on *belonging and trust*, Mean Difference=0.10, *SE*=0.14, 95% CI:[-0.45, 0.27], *p*=0.91, *d*=0.11.

I also ran a between subjects ANOVA predicting *attraction*, but there was a non-significant effect of condition, $F(3,362)=2.44$, *p*=0.064, $\eta_p^2 =0.020$. However, the means did move in the anticipated direction with the ally video profile resulting in the highest attraction followed by the ally written profile, the non-ally video profile, and the non-ally written profile (see Table 5).

Perceptions of the scientist

To test Hypothesis 2 that there would be condition differences on perceptions of the scientist and to see which profile related to the most positive perceptions, I ran a between-subjects ANOVA predicting *perceived allyship*, and found a significant effect of condition, $F(3,362)=46.16$, *p*<0.001, $\eta_p^2 =0.28$. Both the ally video profile and the ally written profile resulted in the highest perceptions of allyship (see Table 5).

I next compared the conditions using Tukey HSD post-hoc tests. As expected, compared to the non-ally written profile, the scientist in the ally video profile was significantly more likely to be perceived as an ally, Mean Difference=1.10, *SE*=0.14, 95% CI:[-1.45,-0.74], *p*<0.001, *d*=1.21, and the scientist in the ally written profile also was significantly more likely to be viewed as an ally, Mean Difference=1.15, *SE*=0.14, 95% CI:[-1.51,-0.80], *p*<0.001, *d*=1.35. However, the scientist in the non-ally video profile did not differ in perceptions of allyship compared to the scientist in the non-ally written profile, Mean Difference=0.01, *SE*=0.14, 95% CI:[-0.34,0.36], *p*=1.00, *d*=0.01.

I also ran a between-subjects ANOVA predicting *warmth* and found a small, but significant effect of condition, $F(3,362)=2.70$, *p*=0.046, η_p^2 =0.022. However, there was no significant difference between the non-ally written baseline condition and all other conditions (vs. non-ally video: *p*=0.931; vs. ally written: *p*=0.182; vs. ally video: *p*=0.999). Results from the Tukey HSD post-hoc tests revealed the only significant difference in condition on *warmth* was between the non-ally video profile and the ally written profile, with the scientist in the ally written profile being perceived as more warm compared to the non-ally video profile, Mean Difference=0.23, *SE*=0.09, 95% CI:[0.004,0.45], *p*=0.04, *d*=0.32.

Lastly, I examined *internal motivation* and *external motivation*. A between-subjects ANOVA predicting *internal motivation* and *external motivation* showed a significant effect of condition for both, *internal motivation:* $F(3,362)=31.63$, *p*<0.001, η_p^2 =0.21; *external motivation:* $F(3, 362)=4.35$, *p*=0.005, η_p^2 =0.035. The ally written profile resulted in the highest perceptions that the scientist was internally motivated to be unprejudiced, whereas the ally video profile resulted in the lowest perceptions that the scientist was externally motivated to be unprejudiced (see Table 5).

Tukey HSD post-hoc tests revealed that compared to the scientist in the non-ally written profile, the scientist in the ally written profile, Mean Difference=0.82, *SE*=0.22, 95% CI: [0.54, 1.09], *p*<0.001, *d*=1.10, and the scientist in the ally video profile, Mean Difference=0.60, *SE*=0.11, 95% CI:[0.33, 0.88], *p*<0.001, *d*=0.81, were significantly more likely to be perceived as internally motivated to appear unprejudiced. Conversely, the scientist in the non-ally video profile did not differ in perceptions of internal motivation compared to the scientist in the non-ally written profile, Mean Difference= -0.02, *SE*=0.11, 95% CI: [-0.29, 0.26], *p*=0.998, *d*=0.03. Additionally, compared to the scientist in the non-ally video profile, both the scientist in the ally written profile, Mean Difference=0.83, *SE*=0.11, 95% CI: [0.56, 1.11], *p*<0.001, *d*=1.12, and the scientist in the ally video profile, Mean Difference=0.62, *SE*=0.11, 95% CI: [0.34, 0.89], *p*<0.001, *d*=0.84, were seen as being more internally motivated to respond without prejudice. There was no significant difference in perceived internal motivation between the ally video condition and the ally written condition, Mean Difference= -0.21, *SE*=0.11, 95% CI: [-0.49, 0.06], *p*=0.189, *d*=0.26.

Similarly, compared to the scientist in the non-ally written profile, the scientist in the ally written profile, Mean Difference=0.35, *SE*=0.14, 95% CI:[-0.70,-0.004], *p*=0.046, *d*=0.38, was significantly less likely to be perceived as being externally motivated to respond without prejudice. Additionally, compared to the scientist in the non-ally video profile, the scientist in the ally video profile, Mean Difference=0.35, *SE*=0.14, 95% CI: [-0.70, -0.0003], *p*=0.050, *d*=0.37, was also significantly less likely to be externally motivated. There was no significant difference in perceived external motivation between the ally video condition and the ally written condition, Mean Difference=-0.01, *SE*=0.14, 95% CI: [-0.36, 0.34], *p*=1.00, *d*=0.01.

Moderation by Stigma Consciousness

To test Hypothesis 3a and 3b that stigma consciousness moderates the effect of profile condition on *belonging and trust*, *attraction*, *warmth, perceived allyship, internal motivation,* and *external motivation*, I ran moderation analyses using Hayes' (2018) PROCESS Model 1. For all analyses, I dummy coded the conditions using the non-ally written profile (baseline condition) as the reference group. Thus, the non-ally written profile was compared to the non-ally video profile (*Contrast 1*), the non-ally written profile was compared to the ally written profile (*Contrast 2*), and the non-ally written profile was compared to the ally video profile (*Contrast 3*). All regression analyses can be found in Tables 6-11.

Table 6: Regression Analyses Predicting Belonging and Trust

	b	SE	t	p
Contrast 1	-0.02	0.13	-0.13	0.897
Contrast 2	0.28	0.13	2.10	0.037
Contrast 3	0.25	0.13	1.90	0.058
Stigma Consciousness	-0.51	0.11	-4.62	<0.001
Contrast 1 X Stigma Consciousness	0.17	0.15	1.16	0.249
Contrast 2 X Stigma Consciousness	0.23	0.14	1.56	0.119
Contrast 3 X Stigma Consciousness	0.35	0.15	2.29	0.023

Table 7: Regression Analyses Predicting Attraction

	b	SE	t	p
Contrast 1	-0.03	0.14	-0.20	0.844
Contrast 2	0.21	0.14	1.52	0.128
Contrast 3	0.28	0.14	1.99	0.047
Stigma Consciousness	-0.30	0.12	-2.58	0.010
Contrast 1 X Stigma Consciousness	0.04	0.15	0.24	0.811
Contrast 2 X Stigma Consciousness	0.16	0.15	1.05	0.296
Contrast 3 X Stigma Consciousness	0.09	0.16	0.59	0.554

Table 8: Regression Analyses Predicting Perceived Allyship

	b	SE	t	p
Contrast 1	-0.11	0.13	-0.83	0.406
Contrast 2	1.09	0.13	8.24	<0.001
Contrast 3	1.03	0.13	7.76	<0.001
Stigma Consciousness	-0.45	0.11	-4.10	0.001
Contrast 1 X Stigma Consciousness	0.15	0.15	1.03	0.306
Contrast 2 X Stigma Consciousness	0.46	0.14	3.18	0.002
Contrast 3 X Stigma Consciousness	0.40	0.15	2.67	0.008

Table 9: Regression Analyses Predicting Warmth

	b	SE	t	p
Contrast 1	-0.08	0.09	-0.92	0.358
Contrast 2	0.16	0.09	1.80	0.073
Contrast 3	-0.03	0.09	-0.38	0.705
Stigma Consciousness	-0.14	0.07	-1.97	0.050
Contrast 1 X Stigma Consciousness	0.07	0.10	0.77	0.443
Contrast 2 X Stigma Consciousness	0.07	0.09	0.77	0.441
Contrast 3 X Stigma Consciousness	0.05	0.10	0.46	0.647

Table 10: Regression Analyses Predicting Internal Motives

	b	SE	t	p
Contrast 1	-0.07	0.11	-0.68	0.496
Contrast 2	0.78	0.11	7.36	<0.001
Contrast 3	0.57	0.11	5.33	<0.001
Stigma Consciousness	-0.27	0.09	-3.03	0.003
Contrast 1 X Stigma Consciousness	0.13	0.12	1.08	0.283
Contrast 2 X Stigma Consciousness	0.32	0.11	2.82	0.005
Contrast 3 X Stigma Consciousness	0.32	0.12	2.56	0.011

Table 11: Regression Analyses Predicting External Motives

	b	SE	t	p
Contrast 1	0.03	0.14	0.22	0.824
Contrast 2	-0.32	0.14	-2.36	0.019
Contrast 3	-0.33	0.14	-2.46	0.014
Stigma Consciousness	0.16	0.11	1.38	0.167
Contrast 1 X Stigma Consciousness	-0.05	0.15	-0.32	0.749
Contrast 2 X Stigma Consciousness	-0.16	0.15	-1.09	0.275
Contrast 3 X Stigma Consciousness	-0.31	0.15	-2.04	0.042

Belonging and trust

There was a non-significant interaction between stigma consciousness and Contrast 1 (non-ally written vs. non-ally video) predicting *belonging and trust*, $b=0.17$, $SE=0.15$, $t=1.16$, $p=0.249$, and between stigma consciousness and Contrast 2 (non-ally written vs. ally written), $b=0.23$, $SE=0.14$, $t=1.56$, $p=0.119$. However, there was a significant interaction between stigma consciousness and Contrast 3 (non-ally written vs. ally video), $b=0.35$, $SE=0.15$, $t=2.29$, $p=0.023$.

I next examined whether there was a significant conditional effect of stigma consciousness in each condition. There was a significant conditional effect of stigma consciousness on *belonging and trust* in the non-ally written profile condition, $b=-0.51$, $SE=0.11$, $t=-4.62$, $p<0.001$, the non-ally video profile condition, $b=-0.34$, $SE=0.10$, $t=-3.53$, $p=0.005$, and the ally written profile condition, $b=-0.29$, $SE=0.09$, $t=-3.13$, $p=0.002$. The more participants feel they will be devalued based on one or more of their identities, the less they feel like they will belong or trust in the fictional organization ComTech when viewing the written profile of the non-ally scientist, the video profile of the non-ally scientist, and the written profile of the ally scientist. More importantly, there was not a significant conditional effect of stigma consciousness on belonging and trust when participants viewed the video profile of the ally, $b=-0.17$, $SE=0.10$, $t=-1.64$, $p=0.103$. That is, the effect of stigma consciousness on *belonging and trust* weakened and was no longer significant only for participants in the ally video condition.

I next examined the data from the alternative perspective, looking at the conditional effect of condition at high and low levels of stigma consciousness (see Figure 2). For participants high in stigma consciousness, there was no significant difference in *belonging and trust* at ComTech in Contrast 1 (non-ally written vs. non-ally video), $b=0.14$, $SE=0.19$, $t=0.76$, $p=0.451$. However, there was a significant difference in *belonging and trust* in Contrast 2 (non-ally written vs. ally written), $b=0.49$, $SE=0.18$, $t=2.71$, $p=0.007$, and Contrast 3 (non-ally written vs. ally video), $b=0.58$,

SE=0.19, *t*=3.04, *p*=0.002. Among participants high in stigma consciousness, those in the ally written and ally video condition reported higher anticipated belonging and trust compared to those in the non-ally written condition. Finally, anticipated belonging and trust at ComTech for participants high in stigma consciousness was highest after viewing the ally video profile.
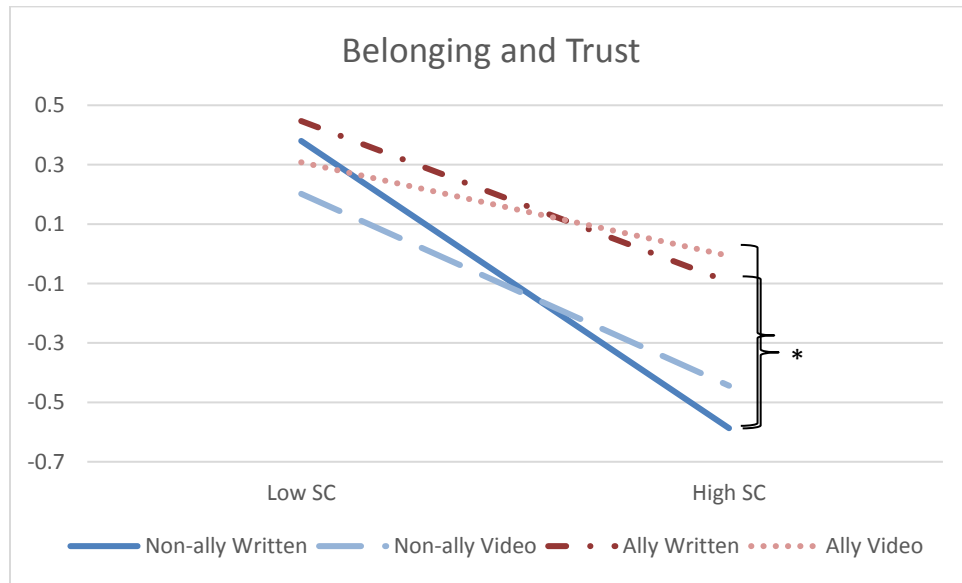

Figure 2: Conditional Effect of Stigma Consciousness on Belonging and Trust

As expected, there were also no significant effect of condition on *belonging and trust* for participants who were low on stigma consciousness (i.e., one SD below the mean), $F(3, 358)=0.688$, $p=0.560$. That is, there was no significant difference on *belonging and trust* in Contrast 1 (non-ally written vs. non-ally video), $b=-0.18$, $SE=0.20$, $t=-0.91$, $p=0.362$, in Contrast 2 (non-ally written vs. ally written), $b=0.07$, $SE=0.20$, $t=0.34$, $p=0.736$, or in Contrast 3 (non-ally written vs. ally video), $b=-0.07$, $SE=0.20$, $t=-0.36$, $p=0.723$.

In summary, the effect of condition on *belonging and trust* at ComTech was primarily important for those who were high in stigma consciousness. Our results show that for participants

who are highly concerned they may be devalued based on one or more of their identities, viewing the ally video profile had the greatest increase in their anticipated belonging and trust.

Attraction

There were no significant interactions between stigma consciousness and Contrast 1 (non-ally written vs. non-ally video) predicting *attraction*, $b=0.04$, $SE=0.15$, $t=0.24$, $p=0.811$, between stigma consciousness and Contrast 2 (non-ally written vs. ally written), $b=0.16$, $SE=0.15$, $t=1.05$, $p=0.296$, and between stigma consciousness and Contrast 3 (non-ally written vs. ally video), $b=0.09$, $SE=0.16$, $t=0.59$, $p=0.554$.

Warmth

None of the interactions between stigma consciousness and the contrasts on *warmth* were significant (*Contrast 1*: non-ally written vs. non-ally video: $b=0.07$, $SE=0.10$, $t=0.77$, $p=0.443$; *Contrast 2*: non-ally written vs. ally written: $b=0.07$, $SE=0.09$, $t=0.77$, $p=0.441$; *Contrast 3*: non-ally written vs. ally video: $b=0.05$, $SE=0.10$, $t=0.46$, $p=0.647$).

Perceived allyship

There was a non-significant interaction between stigma consciousness and Contrast 1 (non-ally written vs. non-ally video) predicting *perceived allyship*, $b=0.15$, $SE=0.15$, $t=1.03$, $p=0.306$. In comparison, there was a significant interaction between stigma consciousness and Contrast 2 (non-ally written vs. ally written), $b=0.46$, $SE=0.14$, $t=3.18$, $p=0.002$, and between stigma consciousness and Contrast 3 (non-ally written vs. ally video), $b=0.40$, $SE=0.15$, $t=2.67$, $p=0.008$.

I next examined whether there was a significant conditional effect of stigma consciousness in each condition. There was a significant conditional effect of stigma consciousness on *perceived*

allyship in the non-ally written profile condition, *b*=-0.45, *SE*=0.11, *t*=-4.10, *p*=0.001, and in the non-ally video profile condition, *b*=-0.30, *SE*=0.10, *t*=-3.14, *p*=0.002. The more participants feel they will be devalued based on one or more of their identities, the less they perceived Sarah Reed as an ally when viewing the non-ally written profile and the non-ally video profile.

However, there was not a significant conditional effect of stigma consciousness on *perceived allyship* when participants viewed the ally written profile, *b*=0.003, *SE*=0.09, *t*=0.03, *p*=0.974, or the ally video profile, b=-0.05, SE=0.10, t=-0.51, p=0.610. That is, the effect of stigma consciousness on *perceived allyship* was weakened and no longer significant only for participants in both the ally written and ally video conditions. This may not be a surprising finding considering participants are more likely to view Sarah Reed as an ally since she is actively signaling allyship in both conditions.

I next examined the data from the alternative perspective, looking at the conditional effect of condition at high and low levels of stigma consciousness (see Figure 3). For participants high in stigma consciousness, there was no significant difference in *perceived allyship* of the scientist for Contrast 1 (non-ally written vs. non-ally video), *b*=0.03, *SE*=0.19, *t*=0.17, *p*=0.866. For participants high in stigma consciousness, there was a significant difference in *perceived allyship* in Contrast 2 (non-ally written vs. ally written), *b*=1.52, *SE*=0.18, *t*=8.42, *p*<0.001, and in Contrast 3 (non-ally written vs. ally video), *b*=1.41, *SE*=0.19, *t*=7.55, *p*<0.001. That is to say, that Sarah Reed was perceived as more of an ally for participants high in stigma consciousness after viewing the ally written and the ally video profile.
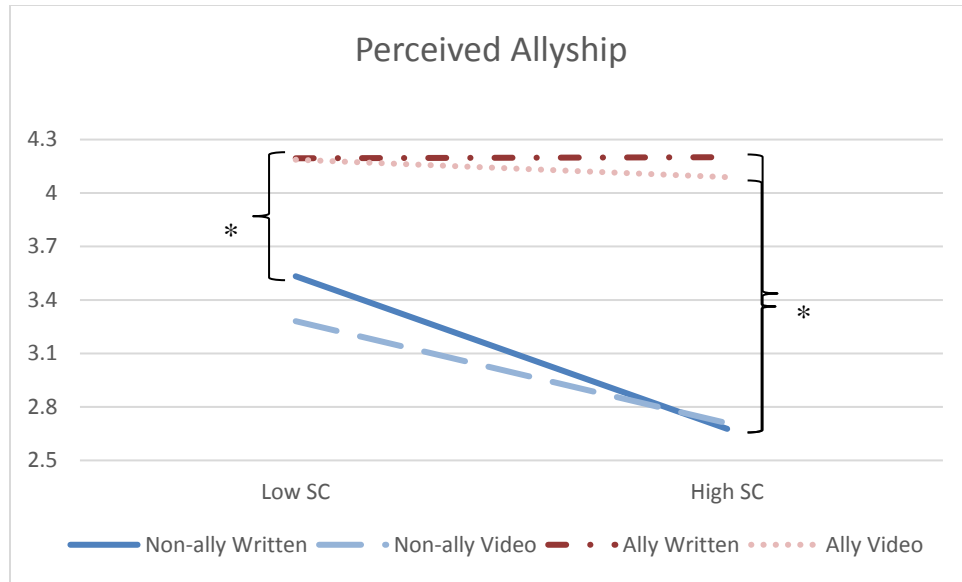
Figure 3: Conditional Effect of Stigma Consciousness on Perceived Allyship

For participants low in stigma consciousness there was no significant difference on *perceived allyship* in Contrast 1 (non-ally written vs. non-ally video), b=-0.25, SE=0.19, t=-1.30, p=0.195. On the other hand, there was a significant difference on *perceived allyship* in Contrast 2 (non-ally written vs. ally written), b=0.66, SE=0.20, t=3.35, p=0.001, and in Contrast 3 (non-ally written vs. ally video), b=0.65, SE=0.20, t=3.25, p=0.001.

In summary, the effect of condition on *perceived allyship* of Sarah Reed was important at all levels of stigma consciousness. Unsurprisingly, our results show that for participants who are high in stigma consciousness, at average levels of stigma consciousness, or low in stigma consciousness, viewing the ally written profile or the ally video profile lead to the greatest increase in *perceived allyship* of Sarah Reed.

Internal motivation to respond without prejudice

There was a non-significant interaction between stigma consciousness and Contrast 1 (non-ally written vs. non-ally video) predicting *internal motivation*, b=0.13, SE=0.12, t=1.08, p=0.283.

In comparison, there was a significant interaction between stigma consciousness and Contrast 2 (non-ally written vs. ally written), b=0.32, SE=0.11, t=2.82, p=0.005, and between stigma consciousness and Contrast 3 (non-ally written vs. ally video), b=0.31, SE=0.12, t=2.56, p=0.011.

I next examined whether there was a significant conditional effect of stigma consciousness in each condition. The results were similar to that of *perceived allyship.* There was a significant conditional effect of stigma consciousness on *internal motivation* in the non-ally written profile condition, b=-0.27, SE=0.09, t= -3.03, p=0.003. There was also a non-significant conditional effect of stigma consciousness on *internal motivation* when participants viewed the non-ally video profile, b=-0.14, SE=0.08, t= -1.83, p=0.069. There was not a significant conditional effect of stigma consciousness on *internal motivation* when participants viewed the ally written profile, b=0.06, SE=0.07, t=0.77, p=0.441, or the ally video profile, b=0.04, SE=0.08, t=0.49, p=0.626. That is, the effect of stigma consciousness on *internal motivation* was weakened and no longer significant for participants in the non-ally video, the ally written, and the ally video conditions.

I then examined the data from the alternative perspective, looking at the conditional effect of condition at high and low levels of stigma consciousness (see Figure 4). For participants high in stigma consciousness, there was no significant difference for perceptions of *internal motivation* of the scientist for Contrast 1 (non-ally written vs. non-ally video), b=0.05, SE=0.15, t=0.31, p=0.757. However, among those high in stigma consciousness, there was a significant difference in *internal motivation* in Contrast 2 (non-ally written vs. ally written), b=1.08, SE=0.14, t=7.51, p<0.001, and in Contrast 3 (non-ally written vs. ally video), b=0.85, SE=0.15, t=5.73, p<0.001. That is, Sarah Reed was perceived as more internally motivated to respond without prejudice for participants high in stigma consciousness after viewing the ally written and the ally video profile relative to the non-ally written profile.
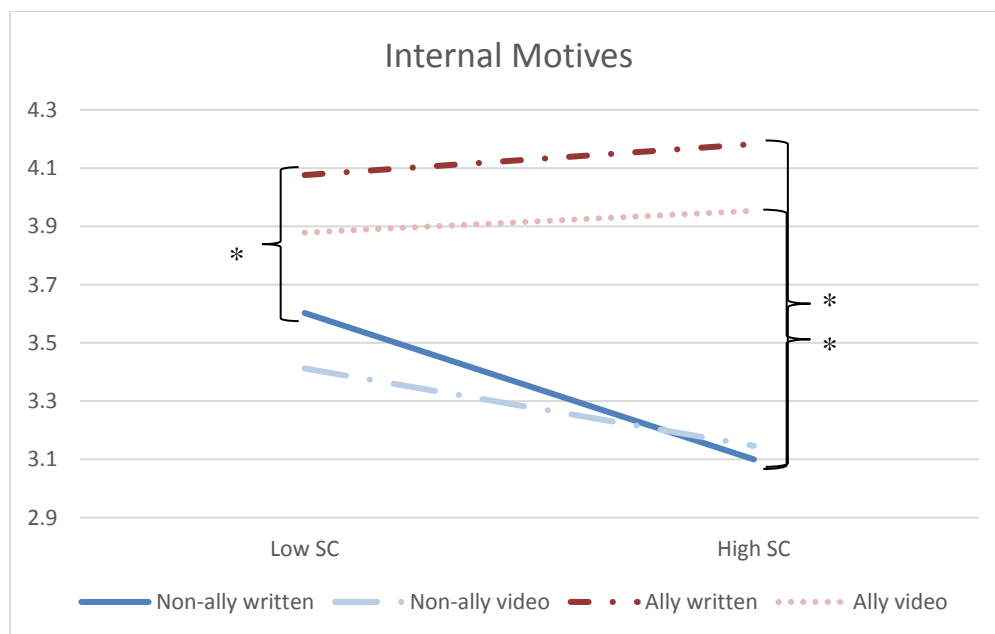
Figure 4: Conditional Effect of Stigma Consciousness on Internal Motivation to Respond Without Prejudice

For participants low in stigma consciousness, there were no significant difference on *internal motivation* in Contrast 1 (non-ally written vs. non-ally video), b=-0.19, SE=0.16, t=-1.23, p=0.219, or in Contrast 3 (non-ally written vs. ally video), b=0.28, SE=0.16, t=1.72, p=0.087. However, there was a significant difference on *internal motivation* in Contrast 2 (non-ally written vs. ally written), b=0.47, SE=0.16, t=3.00, p=0.003.

In summary, the effect of condition on *internal motivation* of the scientist was important for those who were high in stigma consciousness, and slightly important for those low in stigma consciousness as well. The most important finding our results show is that for participants who are highly concerned they may be devalued based on one or more of their identities, viewing the ally video profile or the ally written profile led to the highest perceptions that Sarah Reed was motivated to respond without prejudice because of internal reasons, such as it was personally important to her to appear non-prejudiced.

External motivation to respond without prejudice

There were no significant interactions between stigma consciousness and Contrast 1 (non-ally written vs. non-ally video) predicting *external motivation*, b=-0.05, SE=0.15, t=-0.32, p=0.749, or between stigma consciousness and Contrast 2 (non-ally written vs. ally written), b=-0.16, SE=0.15, t=-1.09, p=0.275. The only significant interaction was between stigma consciousness and Contrast 3 (non-ally written vs. ally video) predicting *external motivation*, b=-0.31, SE=0.15, t=-2.04, p=0.042.

I next examined whether there was a significant conditional effect of stigma consciousness in each condition. There was no significant conditional effect of stigma consciousness on *external motivation* in the non-ally written profile condition, b=0.16, SE=0.11, t=-1.38, p=0.167, the non-ally video profile condition, b=0.11, SE=0.10, t=1.10, p=0.274, the ally written condition, b=-0.004, SE=0.10, t=-0.05, p=0.964, or the ally video condition, b=-0.16, SE=0.10, t=-1.51, p=0.133.

I then examined the data from the alternative perspective, looking at the conditional effect of condition at high and low levels of stigma consciousness (see Figure 5). For participants high in stigma consciousness, there was no significant difference in the *external motivation* of the scientist for Contrast 1 (non-ally written vs. non-ally video), b=-0.02, SE=0.19, t=-0.08, p=0.937. For participants high in stigma consciousness, there was a significant difference in *external motivation* in Contrast 2 (non-ally written vs. ally written), b=-0.47, SE=0.19, t=-2.55, p=0.011, and in Contrast 3 (non-ally written vs. ally video), b=-0.63, SE=0.19, t=-3.30, p=0.001. Sarah Reed was perceived as less externally motivated to respond without prejudice for participants high in stigma consciousness after viewing the ally written and the ally video profile.
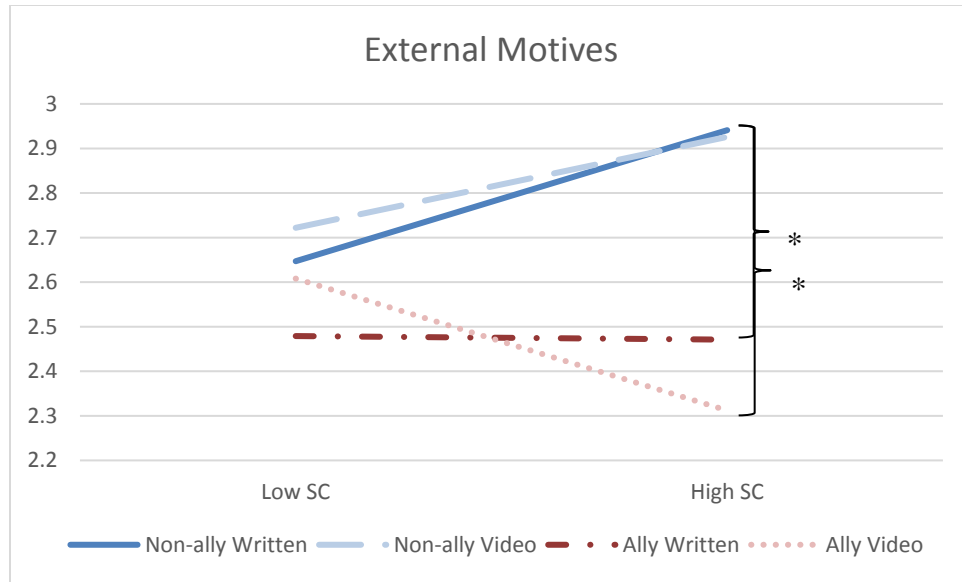
Figure 5: Conditional Effect of Stigma Consciousness on External Motivation to Respond Without Prejudice

For participants low in stigma consciousness, there were no significant difference on *external motivation* in Contrast 1 (non-ally written vs. non-ally video), $b=0.08$, $SE=0.20$, $t=0.38$, $p=0.704$, in Contrast 2 (non-ally written vs. ally written), $b=-0.17$, $SE=0.20$, $t=-0.83$, $p=0.406$, or in Contrast 3 (non-ally written vs. ally video), $b=-0.04$, $SE=0.21$, $t=-0.19$, $p=0.850$.

In summary, the effect of condition on *external motivation* of the scientist was only important for those who were high in stigma consciousness. Our results show that for participants who are highly concerned they may be devalued based on their identities, viewing the ally video profile or the ally written profile led to the lowest perceptions that Sarah Reed was motivated to respond without prejudice because of external reasons, such as societal pressures to appear non-prejudiced.

Mediation Model

I finally tested the proposed moderated mediation model (Hypothesis 4). In particular, I was interested in whether there was an indirect effect of profile condition on belonging and trust at ComTech via participants' perceptions of allyship of the scientist at high levels of stigma consciousness. To test this hypothesis, I used Model 8 of Hayes' (2018) PROCESS macro and 10,000 bootstraps, with profile condition as the independent variables, perceived allyship as the mediator variable, belonging and trust as the dependent variable, and stigma consciousness as the moderator variable. I focused on perceived allyship as the mediator instead of either the internal or external motivation to respond without prejudice because they all showed similar results, and the measure of perceived allyship was used in the study this current research paper is based on (Pietri et al., 2018). As a reminder, Contrast 1 compared the non-ally written condition to the non-ally video condition, Contrast 2 compared the non-ally written condition to the ally written condition, and Contrast 3 compared the non-ally written condition to the ally video condition.

The model revealed that at one standard deviation above the mean on stigma consciousness, there was not a significant indirect effect (i.e., the 95% confidence interval crossed zero) of profile condition on belonging and trust via perceived allyship for Contrast 1 (non-ally written vs. non-ally video), Indirect effect=0.01; 95% CI:[-0.13,0.17]. However, there was a significant indirect effect (i.e., the 95% confidence interval did not cross zero) of profile condition on belonging and trust via perceived allyship for Contrast 2 (non-ally written vs. ally written), Indirect effect=0.65; 95% CI: [0.46, 0.86], and for Contrast 3 (non-ally written vs. ally video), Indirect effect=0.61; 95% CI: [0.41, 0.82]. Participants who were high in stigma consciousness in the ally written condition and ally video condition indicated significantly higher perceived allyship of the scientist than the non-ally written condition, and higher perceived allyship predicted greater anticipated belonging and trust at ComTech (see Figure 6).
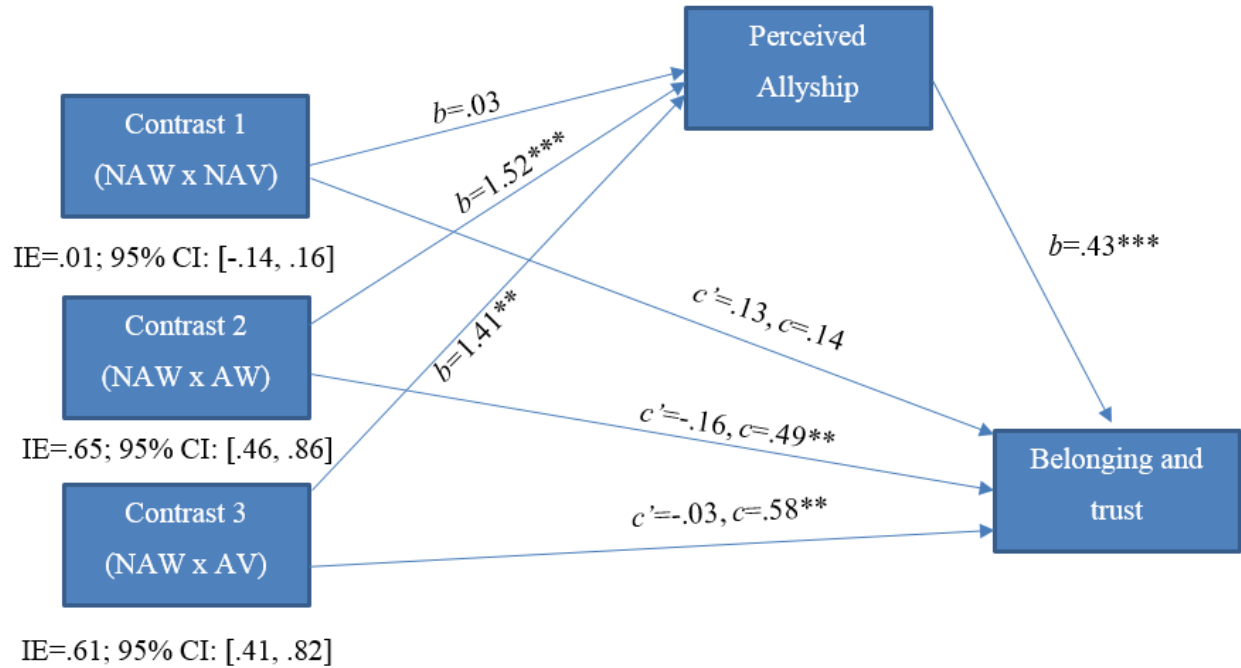
Figure 6: Contrast Comparisons at High Levels of Stigma Consciousness

The model revealed that at one standard deviation below the mean on stigma consciousness, there was also a non-significant indirect effect (i.e., the 95% confidence interval crossed zero) of profile condition on belonging and trust via perceived allyship for Contrast 1 (non-ally written vs. non-ally video), Indirect effect=-0.11; 95% CI:[-0.29, 0.08]. However there was a significant indirect effect (i.e., the 95% confidence interval did not cross zero) of profile condition on belonging and trust via perceived allyship for Contrast 2 (non-ally written vs. ally written), Indirect effect=0.28; 95% CI: [0.12, 0.47], and for Contrast 3 (non-ally written vs. ally video), Indirect effect=0.28; 95% CI: [0.11, 0.47]. Similar to the above results, participants who were low in stigma consciousness in the ally written condition and ally video condition indicated significantly higher perceived allyship of the scientist than the non-ally written condition, and higher perceived allyship predicted greater anticipated belonging and trust at ComTech (see Figure

7). We only expected to find an indirect effect at high levels of stigma consciousness, so this finding was contrary to our predictions. It is also important to note that the indirect effect of condition on *belonging and trust* via perceived allyship was higher for participants high in stigma consciousness compared to participants low in stigma consciousness.
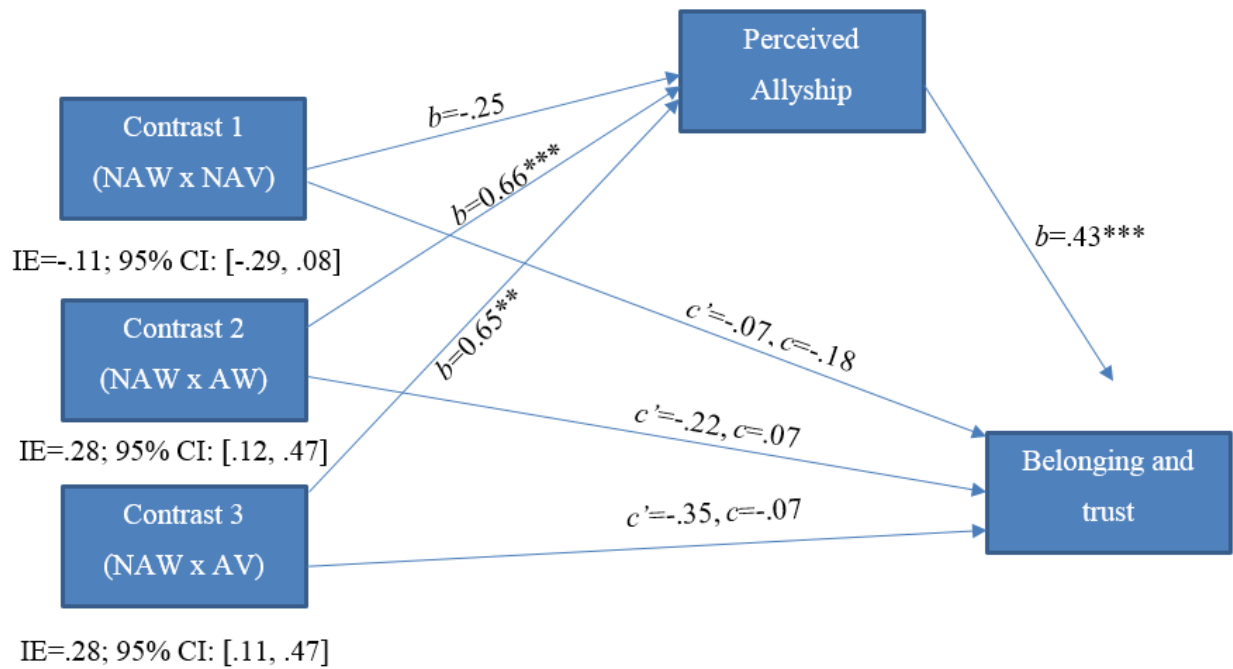

Figure 7: Contrast Comparisons at Low Levels of Stigma Consciousness

DISCUSSION

Main Findings

It is essential that we increase diversity within STEM organizations where there is a clear gender and race disparity (NSF, 2015). Thus, it is critical to develop recruitment materials specifically targeted towards Black women. To this end, organizations can feature a White woman ally on their website to signal to Black women that they will be valued and belong at that organization. Pietri et al. (2018) found that a written profile of a White woman ally was an effective identity-safe cue for Black women and inspired anticipated belonging and trust at a fictional STEM organization. However, this research also found that including a written testimonial is simply not enough to encourage belonging and trust for Black women who are highly concerned about potential discrimination due to their identity or have high stigma consciousness. That is, Black women high in stigma consciousness did not believe a White woman scientist actually cared about helping Black women and was an ally when reading a written testimonial. Building off this past research, I explored whether written employee profiles lack essential cues about an ally's personality and desire to help Black women and tested whether these cues may be evident when an employee profile is in a video format (Chaiken & Eagly, 1983; Freeman & Ambady, 2011). This study, therefore, examined whether a White woman ally would function as a more effective identity-safe cue in video versus written format, particularly among Black women with high stigma consciousness.

In line with hypothesis 1 as well as past research (see Pietri et al., 2018), participants who viewed the non-ally written profile reported the lowest levels of anticipated belonging and trust at the fictional STEM company, ComTech, and participants who viewed the non-ally video profile reported the second lowest levels. However, contrary to the first hypothesis, participants who

viewed the ally written profile reported the highest levels of anticipated belonging and trust, and participants who viewed the ally video profile reported the second highest levels. Nevertheless, these two ally conditions did not differ significantly from each other, indicating that both a written and video profile of a White woman ally can help Black women feel like they will belong and fit in at a STEM organization. Although this finding diverged from my prediction, this finding does fit with past research (see Pietri et al, 2018), which found that relative to a White woman non-ally written profile, a White woman ally profile enhanced belonging and trust on average (i.e., at average levels of stigma consciousness). Similar to the findings with belonging and trust and partially supporting hypothesis 2, the non-ally written and non-ally video condition resulted in the lowest perceptions of allyship, whereas the ally written and ally video condition showed the highest perceptions of allyship. Once again, differing from my predictions, we did not see any benefits of the ally video condition over the ally written condition. Relatedly, participants believed the White woman scientist had higher internal motivation to not be prejudice in the ally written and ally video condition relative to the non-ally written and non-ally video condition.

Perhaps more importantly than the main condition effects were the analyses with stigma consciousness. Past research found that although a White woman ally enhanced belonging and trust on average for Black women relative to a White woman non-ally, the ally did not increase belonging and trust among Black women with high levels of stigma consciousness (Pietri et al., 2018). Thus, in the current research, I aimed to help Black women high in stigma consciousness trust the White woman ally and ensure she was an effective identity-safe cue. Replicating past research and in partial support for Hypothesis 3a, stigma consciousness moderated the effect of condition on *belonging and trust*. In line with my hypothesis, Black women high in stigma consciousness felt the most anticipated belonging and trust at ComTech after viewing either the

ally written or ally video profile. However, only the ally video profile was effective at nullifying the negative effects of stigma consciousness. That is, high stigma consciousness was related to lower anticipated belonging and trust, unless participants viewed the ally video profile. And even though the ally written condition did not mitigate the harmful effects of stigma consciousness for belonging and trust, both the ally video and the ally written condition led to higher belonging and trust than the non-ally written condition for participants high in stigma consciousness.

Contrary to predictions, there was no effect of condition on *attraction*, and there were no significant interactions between condition and stigma consciousness predicting *attraction*. This finding indicates that the perceived allyship of employees at a company may be less important or less influential when thinking about the attractiveness of that company. Employee allyship may primarily signal the kinds of individuals that work at the organization and how accepting these individuals will be, and hence, influence anticipated belonging and trust and comfort in an organization. However, employee allyship may not provide any clues as to what the actual job is like or what the organization as a whole values. Person-organization fit (i.e., compatibility between employees and an organization) on values and organizational culture are strongly related to organizational attractiveness, and so allyship may be less important when thinking of attraction compared to these factors (Judge & Cable, 1997; Rentsch & McEwen, 2002). Indeed, this study used a non-STEM sample, who might not have been interested in working for a tech company, and may have perceived very little fit with a tech company. Nevertheless, *belonging and trust* did correlate with *attraction*, so the profiles could indirectly influence attraction via anticipated belonging and trust at the company.

Contrary to the findings for *belonging and trust* and what has been found in previous work (Pietri et al., 2018), both the ally written profile and the ally video profile were effective at

weakening the effects of stigma consciousness on *perceived allyship*. That is, stigma consciousness predicted lower perceptions of allyship in the non-ally written and non-ally video condition, but did not relate to perceptions of allyship in the ally written and ally video condition. Moreover, among those high in stigma consciousness, relative to the non-ally scientist in written format, the scientist was perceived as more of an ally in the video and the written format. Moreover, for Black women high in stigma consciousness, relative to the non-ally scientist in written format, participants perceived the ally scientist as lower in external motivation and higher in internal motivation to control prejudice in the video and the written format.

Finally, I found that perceived allyship was an important mechanism underscoring profile conditions' effect on anticipated belonging and trust at the ComTech company. That is, among participants both high and low in stigma consciousness, viewing the ally written profile or the ally video profile resulted in greater perceptions that the White woman scientist was an ally for Black women, and higher levels of perceived allyship resulted in greater anticipated belonging and trust at ComTech compared to participants who viewed the non-ally written profile. This indicates that both the ally written profile and the ally video profile were effective identity-safe cues that increased perceptions that a White woman scientist cared about helping Black women, and these perceptions related to Black women feeling like they would belong at ComTech.

Theoretical Implications

The current research expands upon past work, which found that stigma consciousness negatively predicted belonging and trust at a STEM company, even when participants learned about a White woman ally who supposedly cared about helping Black women (Pietri et al., 2018). I similarly found that stigma consciousness related to lower belonging and trust among participants who read about a White woman ally. However, the ally video profile mitigated the negative effects

of stigma consciousness on anticipated belonging and trust. At the same time, my findings also differed from past research. For instance, relative to the non-ally written condition, the ally written condition led to higher belonging and trust, and perceived allyship for Black women both high and low in stigma consciousness. This finding is different from past work that found a written profile of a White woman ally was only beneficial for Black women low in stigma consciousness (Pietri et al., 2018).

Critically, this study featured a different ally manipulation, which may have been more effective at increasing perceptions of allyship and in turn, encouraging more belonging and trust at a STEM company. Specifically, in the current study, the ally manipulation was embedded under a question asking the White woman scientist what she likes the best about working at ComTech. The scientist also discussed the importance of using her position to recruit talented Black and Latina women to ComTech because these women have not been represented in computer science (i.e., demonstrating internal motivation to help Black women). In contrast, Pietri et al. (2018) included the ally manipulation when the White woman scientist spoke about the success of her research group. That is, the White woman scientist focused on how diverse perspectives improve research quality, and hence, she actively works to recruit Black and Latina, who are highly underrepresented in STEM. This ally manipulation in some ways fit with a multicultural philosophy, which is when organizations acknowledge the importance of diversity and recognize differences between minority and majority groups. Ethnic minorities tend to be attracted to and feel welcomed in organizations that have a multicultural philosophy (Plaut, Thomas, Goren, 2009; Purdie-Vaughns et al., 2008). However, using this language as an ally manipulation may have made this White woman appear as though she primarily cared about the productivity of her research team instead of actually helping Black women succeed in the computer science industry.

Recruiting Black women for intrinsically moral reason may be a more effective ally manipulation, and this will be an important question for future research.

Practical Implications for Organizations

The current research also has important implications for increasing the diversity of organizations. The findings of this study suggest that organizations should consider using employee testimonials on their company websites, when those employees are allies, and may consider presenting these testimonials in video format. Relevant to the current study, previous research has found that diversity statements without diverse representation are not sufficient to promote trust in an organization for women and ethnic minorities (Windscheid, Bowes-Sperry, Kidder, Cheung, Morner, & Lievens, 2016). This presents a problem for organizations that value diversity and want to increase women and ethnic minority employees, but currently lack diverse representation. The current work suggests a potential solution to this issue – using employee allyship testimonials.

Previous organizational research also has looked at the importance of video versus written format for employee testimonials. Specifically, Walker et al. (2009) found that Black participants were more attracted to an organization as the number of minorities giving employee testimonials increased, whereas for White participants they became less attracted. However, this effect was weakened when the employee testimonials were delivered via video compared to written testimonials that only included text with a picture. This finding suggests that video testimonials may be more beneficial than written testimonials, especially when the employee has a different identity than the prospective employee (Walker et al., 2009).

Similar to this past work, the ally video was the most effective for mitigating the harmful effect of stigma consciousness on belonging and trust. However, more important than the format,

may be the information provided about the employees in the profiles. Displaying allyship either in the ally written or ally video profile was more effective at increasing belonging and trust than the non-ally video profile. Therefore, video profiles that feature an employee displaying allyship are a useful identity-safe cue to invest in if organizations want to signal to Black women that their identities will be welcomed and valued at that organization. However, this study found that written profiles that include allyship are still effective and are a potentially less expensive alternative for organizations to use.

Limitations & Future Directions

There were several limitations to this research that provide opportunities for important future research question. One limitation of this research was the amateur-made videos. Neither the actress nor the camerawoman/editor were professionals and as a result, participants may not have found the actress to be believable as an ally or potentially as a ComTech employee. Our lack of a significant effect of warmth, suggests that our actress was generally perceived as a warm individual, however differences did occur between the two formats. Indeed, we found that participants felt the White woman scientist was *less* warm in the non-ally video profile compared to the ally written profile, further showing the videos created for this study were not better than written profiles. Because the woman was not an actress, and was pretending to be a ComTech employee, subtle cues only found in video profiles may have conveyed the actress was less likable or warm, and disingenuous as an ally and/or fictional employee (Chaiken & Eagly, 1983). A future study might test whether a professional camera crew and actress are more effective at conveying allyship than a written profile and a non-professionally produced video (similar to the video used in the current study). Spending the time and resources to create video profiles of employees may only be helpful when organizations have the financial ability to create professionally made videos.

As previously mentioned, diverging from past findings (e.g., Pietri et al., 2018), the ally written profile unexpectedly led to higher belonging and trust, and perceived allyship compared to the non-ally written profile, even among participants high in stigma consciousness. This finding may have been a result of the strong ally manipulation used in the current study. Consequently, future research should explore the different ways in which allyship can be conveyed in written format, and specifically examine which ally manipulations are the most effective to encourage Black women's belonging and trust in an organization. For example, future research could examine the importance of the specific motivations for being an ally and compare the effectiveness of an ally who wants to recruit Black women because she believes it is the right thing to do versus an ally who wants to improve her team's research productivity by having diverse employees. Diversity practitioners could then use these findings to inform diversity training in organizations and teach employees the most effective ways they can demonstrate allyship.

Most STEM organizations have a majority White male workforce (NSF, 2015) and, thus, it also is important to study ways in which a White man also can display allyship. The current study showed that both the written and video profile effectively conveyed that a White woman cared about helping Black women and promoted Black women's anticipated belonging and trust in a STEM organization. Thus, the ally manipulation employed in this study may also be effective for a White male scientist. Because White men have no overlapping identities (i.e., are a different race and gender) with Black women, Black women may be distrusting of a White man claiming to be an ally. Rather, Black women may need more cues to believe a White man truly cares about helping them, such as the allyship cues displayed in videos (Dovidio et al., 2006; Richeson & Shelton, 2005). Thus, it is possible that a White male ally in a video profile could prove to be a more effective identity-safe cue compared to a traditional written profile. Future research should

examine this possibility as well as explore whether a White woman can more easily convey she is an ally for Black women relative to a White man. Future research also might explore efficacious strategies to signal allyship to people from other groups that are underrepresented in STEM fields (e.g., Latina women, people with disabilities), and test how organizations might utilize allyship in their employee profiles to promote anticipated belonging and trust for prospective employees from these groups.

Another important consideration of this study is that participants were recruited via MTurk and were not specifically STEM majors or scientists. Although this research found that allyship in employee testimonials can encourage Black women, who are not in STEM, to anticipate belonging and trust at a STEM company, it will be important to test the effectiveness of this technique among Black women already established in those fields. Indeed, prior research has found that individuals are more susceptible to social identity threat when they are highly identified with a particular domain (Aronson, Lustina, Good, Keough, Steele, & Brown, 1999; Osborne & Walker, 2006; Schmader, 2002; Steele, 1997). Although a White woman ally may use her shared gender identity to empathize with Black women because women in general are underrepresented in STEM, for these Black women who are highly identified an allyship manipulation may not be helpful. Going back to the ethnic prominence perspective, Black women are more sensitive to discrimination from their racial identity rather than from their gender identity, and so perhaps only another Black woman scientist would act as an identity-safe cue. Therefore, it is crucial we test whether a White woman scientist who displays allyship can actually be an effective identity-safe cue for Black women scientists who feel STEM is a key part of their identity.

In conclusion, this research has successfully shown that a White woman ally can function as an identity-safe cue in both written and video format, but allyship delivered via video is the

most effective at mitigating the harmful effects of stigma consciousness on anticipated belonging and trust in at a STEM company. This research, therefore, has practical implications for organizations and shows that having an employee identify as an ally is a useful tool to suggest to Black women they will belong and feel welcome at a tech company. Moreover, although Black women high stigma consciousness tend to not believe a White woman wants to help Black women, White women can address this concern by indicating she cares about promoting the success of Black women. Thus, this work represents an important step to helping White woman act as identity-safe cues for Black women.

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APPENDIX A. MATERIALS

EMPLOYEE PROFILE

Tell us about yourself.

"Hi, my name's Sarah Reed and I've been working at ComTech for about three years now. For my first two years I was a research assistant, but this past year I was recently promoted to Associate Researcher and the head of a small team. So I have two research assistants and three interns on my team. My job primarily consists of designing and implementing programs to analyze large data sets. I really love working with computers and have always enjoyed my time here at ComTech. However, I was also really excited to receive this prestigious promotion so early in my career. I really enjoy working with my team of researchers, and it's awesome that we get to design and implement such cool and innovate projects."

What is a current research project you're working on?

"My team and I right now are working to develop a program that will automatically organize data and make it easier to read. This will be a very comprehensive program that will allow researchers to examine their data more quickly and more efficiently. My team is part of a network of other teams here at ComTech, and the work that my team is doing is part of a larger project being overseen by the senior head researcher on staff. I'm very excited to see the final product of this project.

What do you do on the weekends?

"On the weekends I like to catch up and hang out with my fiancé or my niece and nephews. Just spend lots of family time together."

What has been your best experience at ComTech? (ally condition)

"My favorite part about working at ComTech is being able to choose who to hire on my team. I'm a big proponent of having people from diverse backgrounds that can bring unique perspectives to our group. And although we've seen an increase in women in the computer science industry, we've yet to see that same increase for Black and Latina women. So when I'm choosing who to hire for my team, I specifically look for Black and Latina women."

What has been your best experience at ComTech? (non-ally condition)

"I really enjoy the colleagues I get to work with. They make working at ComTech a great experience and I'm really excited to work on all the projects and face any problems we have together. I really enjoy coming to work each and every day."

APPENDIX B. MEASURES

DEPENDENT VARIABLES

Belonging in STEM

Instructions: Imagine you worked at this company. Please indicate the degree to which you agree or disagree with each statement.

1. People in the company would like me.
2. People in STEM are a lot like me.
3. I would belong in this company.
4. At this company, I would feel like an outsider.
5. At this company, I would feel respected.
6. At this company I would feel excluded.
7. At this company, I would feel anxious.
8. At this company I would enjoy being an active participant.

Trust and Comfort in STEM

Instructions: Imagine you worked at this company. Please indicate the degree to which you agree or disagree with each statement.

1. I think I would like to work at a place like this company.
2. I think I would like to work in a company that has similar hiring practices as those of this company.
3. I think I would like to work under the supervision of people with similar values as the staff.
4. I think I could "be myself" at this company.
5. I think I would be willing to put in extra effort if my supervisor asked me to.
6. I think my colleagues at this company would become my close personal friends.
7. I think I would be willing to put in a great deal of effort beyond that normally expected in order to help this company be successful.
8. I think I would be treated fairly by colleagues.
9. I think I would trust other colleagues to treat me fairly at this company.
10. I think that my values and the values of other colleagues at this company are very similar.
11. I think that the environment at this company would inspire me to do the very best job that I can.

Intentions to Pursue Scale

Instructions: Please indicate the degree to which you agree or disagree with each statement.

1. I would accept a job offer from this company.
2. I would make this company one of my first choices as an employer.
3. If this company invited me for a job interview, I would go.
4. I would exert a great deal of effort to work for this company.
5. I would recommend this company to a friend looking for a job.

Organizational Attractiveness Scale

Instructions: Please indicate the degree to which you agree or disagree with each statement.

1. For me, this company would be a good place to work.
2. I would not be interested in this company except as a last resort (R).
3. This company would be attractive to me as a place for employment.
4. I would be interested in learning more about this company.
5. A job at this company would be very appealing to me.

MEDIATORS

Perceived allyship (Pietri et al., 2018)

Instructions: Please indicate the degree to which you agree or disagree with each statement regarding the female scientist.

1. Most likely this person cares about issues related to Black women.
2. Most likely this person wants to help Black women succeed in the sciences.

Internal and External Motivation to Respond Without Prejudice (Plant & Devine, 1998)

Instructions: Please indicate the degree to which you agree or disagree with each statement regarding the female scientist.

External motivation items
1. Because of today's politically correct standards, the scientist is trying to appear non-prejudiced toward Black people.
2. The scientist is trying to hide any negative thoughts about Black people in order to avoid negative reactions from others
3. The scientist would be concerned that others would be angry with them if they acted prejudiced toward Black people.
4. The scientist attempts to appear non-prejudiced toward Black people in order to avoid disapproval from others.
5. The scientist is trying to act non-prejudiced toward Black people because of pressure from others.

Internal motivation items
1. The scientist attempts to act in non-prejudiced ways toward Black people because it is personally important to them.
2. According to the scientist's personal values, using stereotypes about Black people is okay [R].
3. The scientist is personally motivated by their beliefs to be non-prejudiced toward Black people.
4. Because of the scientist's personal values, they believe that using stereotypes about Black people is wrong.
5. Being non-prejudiced toward Black people is important to the scientist's self-concept.

Warmth

Instructions: Please indicate the degree to which you agree or disagree with each statement regarding the female scientist.

1. The scientist appeared sincere.
2. The scientist was warm.
3. The scientist was good-natured.

MODERATOR

<u>Stigma Consciousness (Pinel, 1999)</u>

Instructions: Please indicate the degree to which you agree or disagree with each statement.

1. Stereotypes about Black women have not affected me personally [R].
2. I never worry that my behaviors will be viewed as stereotypical of Black women [R].
3. When interacting with people, I feel like they interpret all of my behaviors in terms of my race and gender.
4. Most people do not judge other people on the basis of their race and gender [R].
5. Being a Black woman does not influence how people act with me [R].