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RACIAL EMPATHY GAP IN THE WORKPLACE: THE EXISTENCE OF AND CONSEQUENCES FOR RACIAL WORKPLACE DISPARITY THROUGH LACK OF EMPATHY

Kathleen Bahr

Honors Thesis

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by
Kathleen Bahr

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Advisor: Taeya Howell
Honors Coordinator: Mark Hansen

ABSTRACT

RACIAL EMPATHY GAP IN THE WORKPLACE:
THE EXISTENCE OF AND CONSEQUENCES FOR RACIAL WORKPLACE DISPARITY THROUGH LACK OF EMPATHY

Kathleen Bahr
Human Resource Major
Bachelor of Science

Extensive research has been done on racial disparities in the workplace and the racial biases and discrimination that causes and contributes to said disparities. This research explores the existence of and causes for a racial empathy gap in the workplace, focusing on empathy between peers. An experimental study was conducted with a sample of 451 people in the United States and the United Kingdom. Using a scenario experiment, I manipulated the gender and race (randomized between male or female and Black or White) of a co-worker who had a negative event occur in their life. The study showed that there was a significant difference in the state empathy and perspective taking for Black and White protagonists, but results did not support the original hypothesis that Black targets would receive less empathy than White targets. Both state empathy and emotional rating showed no significant difference between targets of different races. Contrary to my hypothesis, perspective taking was engaged in the lowest with While male targets.

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TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

I. Introduction

Racial disparity in the workplace is an ongoing topic both in society and in academic research. One major part of this disparity is the pay gap that exists. In 2016, the average hourly wages for Black and Hispanic men were respectively $15 and $14, compared to $21 for White men; for Black and Hispanic women it was $13 and $12 respectively, compared to $17 for White women (Patten, 2016). For the years 2017 to 2019, the U.S. Department of Labor found that on a national level, Blacks earned 76% and Hispanics earned 73% of what Whites earn (Office of Federal Contract Compliance Programs, 2020).

Inequalities exist outside of compensation as well, in areas such as benefits, mentorships, promotions, and more. Black and Latino employees receive systematically lower access to retirement and health benefits than their White peers do (Meschede, Sullivan, Shapiro, Kroeger, & Escobar, 2019). In the fiscal year of 2022, the U.S. Equal Employment Opportunity Commission (EEOC) received 73,485 new discrimination charges, an increase of almost 20% from 2021 (U.S. Equal Employment Opportunity Commission, 2023).

Members of racial minorities clearly feel these racial disparities. A 2016 study found that 40% of Asians and 31% of Black professionals admitted to “Whitening” their resumes (King, DeCelles, Tilcsik, & Jun, 2016). When an employer presented that they value diversity, participants engaged in none to very little resume whitening; when the company did not present diversity as a value, these professionals whitened their resume in order to increase their chances of a call back.

If an individual employee has strong impressions that a company's actions are racially discriminatory (perceived racial discrimination), there is a clear negative affect on their job attitude, physical health, and psychological health (Triana, Jayasinghe, & Pieper, 2015).

Previous research has looked at structural discrimination, organizational discrimination, and individual discrimination. Structural discrimination, sometimes referred to as institutional discrimination, is a macro-level discrimination; it concerns the major sectors of life, such as political powers and laws or property ownership. Organizational discrimination refers to organizations, such as businesses, agencies, and universities, which act in discriminatory ways; this discrimination happens through their policies, culture, and actions. Individual discrimination is one individual discriminating against another; this is seen through an individual's reactions and responses to another, and their subsequent actions. All three types of discrimination may be due to both intentional and unintentional acts. This research focuses on the reactions and responses of individuals in a workplace setting, so it will seek to contribute to research on individual discrimination.

Theories of social identity and social categorization postulate that individuals have distinct identities that place them into distinguishable groups (Oakes & Turner, 1980; Tajfel, 1974), which create in-groups and out-groups. The creation of in-groups can often lead to bias and discrimination of those in the out-group (Oakes & Turner, 1980). Race is a strong identity for many people, and in-groups are created based on race. When a person sees someone of a different race, they become part of their out-group and different biases and discrimination occur.

Racism is often unintentional and comes from unconscious thoughts that affect an individual's behavior (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). Stereotypes assigned to different racial groups, even if not explicitly endorsed by the individual, can result in unfair treatment as this stereotype is applied in action (Kunda & Spencer, 2003). Applied stereotypes can result in unfair treatment like being given additional tasks, not receiving a mentor, or being passed up for promotions.

To understand different causes for workplace discrimination and individual discrimination, we can look at research in other fields. A 2012 study showed racial disparities in medical treatment because of a lack of empathy (Trawalter, Hoffman, & Waytz, 2012). This study showed that doctors and nurses are more empathetic towards Whites than towards Blacks when administering medical treatment and responding to patient pain, which led to the terminology "racial empathy gap." The same research showed that in the NFL, Black players were given shorter recovery time than White players with similar injuries. Thus, if there is a clear racial empathy gap in regard to medical treatment in hospitals and the NFL, the question arises as to whether this racial empathy gap exists in work settings and how it is created or increased.

This research sought to find if a racial empathy gap exists in the workplace, and if it does, how disparities are created and amplified. To narrow the focus, this research focused on empathy between peers. It sought to understand if targets receive different amounts of empathy, if participants rate a target's emotional response differently, and if participants engage in different levels of perspective taking, all dependent on the target's race.

In addition, this research looked at what might influence different levels of empathy. Two factors Trawalter studied are perceived control and perceived similarity. When measuring perceived control, Trawalter found that when a target has less status and power (or less control), their pain is actually rated lower (Trawalter, Hoffman, & Waytz, 2012). Trawalter also found that Black targets received less empathy, independent of the race of the participant (Trawalter, Hoffman, & Waytz, 2012). So independent of the participant's feelings of similarity, Black targets received less empathy. Similar frameworks and questions will be used to measure both perceived control and perceived similarity as predictors of empathy.

We recognize that the gender of a person experiencing pain or hardship might influence various levels of empathy as well. The gender of the target is manipulated in our experimental materials for this reason, but it is not the focus of our analysis.

The purpose of this study is to understand the existence of and causes for a racial empathy gap, and how this racial empathy gap can increase workplace disparities. Understanding empathy and how it differs between races can help both organizations and individuals be aware of unconscious biases that may exist and their accompanying negative outcomes. Negative outcomes can come through Blacks receiving stricter consequences, being held to higher standards, and being passed up for promotions. Understanding the differences in empathy can help organizations and individuals take action to equalize their empathy across races.

II. Literature Review

The Racial Empathy Gap

Trawalter, Hoffman, and Waytz found that Black patients often receive less medical treatment than Whites do (Trawalter, Hoffman, & Waytz, 2012). Through six different experiments, they found that the less privileged the target seemed, the lower the participants rated the targets' experiences of pain. This was tied to the social stereotype that Blacks are often of a lower socioeconomic status: targets with lower status and less power often were perceived to have less pain. The study concluded that while some Whites might not care about Black people and their pain, many fail to realize that Black people feel as much pain as White people due to cultural stereotypes.

A follow up study in 2016 confirmed the same results, extending the study to participants who were medical students (Hoffman, Trawalter, Axt, & Oliver, 2016). Participants who believe there are biological differences between Blacks and Whites reported lower pain ratings for Black targets. Participants who did not endorse biological differences between Black and Whites did not show a bias in pain ratings, suggesting that individuals with some medical training may use false beliefs to inform medical decisions, contributing to the disparities in pain assessments and medical treatment.

Both studies confirmed that Blacks often receive lower pain ratings than Whites due to a difference in empathy towards different races, which Trawalter coined "the racial empathy gap."

State vs. Trait Empathy

Empathy has been researched in two main ways. First, some research denotes empathy as an ability, applying it as a trait; other research uses it as a response to a specific situation, implying it as a state. Trait empathy suggests that empathy is an ability that is stable across time, so certain people are naturally more empathetic than others. This has been ascribed to anatomical differences (Banissy, Kanai, Walsh, & Rees, 2012) as well as genetic and developmental factors (Eisenberg & Morris, 2001).

On the other hand, state empathy suggests that people can avoid empathy for certain individuals or groups. For example, violent men have decreased empathy towards their spouses than to female strangers (Clements, Holtzworth-Munroe, Schweinle, & Ickes, 2009). Situational factors have been proven to affect empathy. Some of these include perceived power, perceived need, value of the target, and more. Perceived power found that increased power results in a decreased ability to detect emotions, which can result in lower empathy (Galinsky, Magee, Inesi, & Gruenfeld, 2006). Evidence of a current need, including the target being vulnerable, leads to the participant perceiving the target's need more and results in higher sympathy for that target (Lishner, Batson, & Huss, 2011). Valuing the social welfare of a person was proven to be a situational antecedent of feeling empathy for a person in need (Batson, Eklund, Chermok, Hoyt, & Otriz, 2007). These different aspects of research show the extent to which (perceived) situational factors can influence state empathy.

If a racial empathy gap occurs in medical treatment, it is highly possible that a similar gap exists in the workplace; this difference of empathy would show through in state empathy responses for when a negative event occurs in the workplace. The

differences in empathy based on a person's race can originate from the causes discussed earlier, specifically in-group/out-groups and cultural stereotypes.

Pain can be both physical pain, such as in the Trawalter study, or emotional pain. Many negative life events beyond a person's control can occur, causing emotional pain in their lives. This emotional pain can be shown through words or facial expressions, just as physical pain can. In many workplaces, emotional pain is more likely to occur than physical pain. Just as how doctors show differences in empathy for a targe's pain based on their race, employees might show differences in empathy towards a co-worker's emotional pain based on the target's race. Based on Trawalter and colleagues' prior work (2012, 2016) that Blacks are seen as experiencing less physical pain and receiving less empathy than Whites, we propose the following:

> *H1: Blacks receive less empathy than Whites do when a negative event occurs and is discussed in the workplace.*

Perspective taking

Adam Galinsky and colleagues have researched the effects of perspective taking over the years. Perspective taking has been defined as the ability to see the world from another's point of view. One of Galinsky's well-known findings is that perspective-taking can decrease the expression and accessibility of stereotypes (Galinsky & Moskowitz, 2000). His 2000 study found that engaging in perspective-taking will "increase the expression of positive evaluations of the target" and "reduce the expression of stereotypic content" (Galinsky & Moskowitz, 2003; Wang, Ku, Taie & Galinsky, 2013). He also

found that treatment between in-groups and out-groups was more equal when people engaged in perspective-taking (Galinsky & Moskowitz, 2000). The effectiveness of perspective taking was tied to the concept of self-other overlap; in other words, when the participant and the target share in increased number of features, perspective-taking is effective in reducing stereotyping (Galinsky & Moskowitz, 2003; Galinsky, Wang, & Ku, 2005). Thus, when people differ based on race (or gender), I propose that perspective taking will be lower. In particular, perspective taking will be lower when a target is Black compared to when a target is White.

H2: When a negative workplace event occurs, participant perspective taking is lower with Black targets than White targets.

The perception of emotional response can differ based on the target's race and gender. A meta-analysis in 2001 found that individuals more accurately recognize emotions expressed by members of their own cultures (Elfenbein & Ambady, 2002), known as the "in-group advantage." Beyond in-group and out-groups, they looked at the relations between minority and majority groups. They found that the difference between cultural groups' understanding of each other's emotions is not symmetric. This showed through with minority groups understanding the majority's emotions better than they understood their own (Elfenbein & Ambady, 2002).

If the same in-group advantage and minority-majority group relations exist in workplaces, then Black targets will receive the lowest emotional ratings from participants. Black targets will have an out-group disadvantage when the participant is

White, leading to a lower ability for the participant to recognize the Black target's emotions, resulting in lower emotional ratings. Black targets will also be at a disadvantage with the participant is Black (or of another minority), as those in minority groups can often understand the majority group's emotions (Whites) better than their own.

H3: In response to a negative event, participants rate Black target's emotions lower than White target's emotions.

Perceived Similarity and Control

In one of Trawalter's experiments, they tested how similar the participant felt towards the target and how much control the participant believed that the target had over the outcomes as potential explanations for the differences in empathy.

Perceived similarity was measured to see a participant's feelings of similarity affected their level of empathy. This measurement was useful to see if factors like sharing the race of the target affected feelings of similarity, which then affects empathy. This can help determine if a lack of empathy is influenced by in-group out-group biases or other factors. When a participant sees themselves as similar to the target, the target is part of the in-group, which increases the level of empathy given. If the target is not perceived as similar, the target is part of the out-group and does not receive as much empathy. If a target is part of the in-group yet still receives lower empathy, this is opposite of the impact of in-groups and out-groups; this would then show that the lower empathy is not influenced by perceived similarity but influenced by other factors. Trawalter found that

instead of perceived similarity, it was cultural stereotypes that influenced the amount of empathy felt towards the target (Trawalter, Hoffman, & Waytz, 2012); this can explain why White and Black nurses both rated Black targets' pain as less, because individuals of all races are often aware of cultural stereotypes, and therefore the unfair treatment that comes from cultural stereotypes is applied by individuals from all races.

Perceived control over the negative event causing harm was measured to see if participants ratings of the targets' control varied by race, and if that variance correlated with lower empathy, lower perspective taking, or lower rated emotions. Perceived control measures the amount of control a participant believes the target to have over the negative situation. Perceived control is often influenced by how much power and status the participant believes the target to have. Trawalter found that pain ratings could be predicted by how much control the participant rated the target to have (Trawalter, Hoffman, & Waytz, 2012). Different than expected, they found that targets who had less power and were therefore seen as having less control were actually attributed less pain. The authors reasoned that low-status people are seen as having less power, but are also more generally seen as being tough, resulting in lower estimates of their pain. The perceived similarity and control of a target might differ on the target's race or gender, resulting in unequal responses towards the different targets.

H4: Perceived similarity and perceived control mediate the relationship between employee race and empathy.

III. Methodology

This study was preregistered on Open Science Framework (OSF). The preregistration and accompanying information can be found at https://osf.io/sxknp.

Sample

Data was collected through an online survey given to both students at Brigham Young University (Sample A) and by recruiting participants from Prolific (Sample B). The survey was administered first to BYU students through a behavioral research lab and second to participants recruited from Prolific. Students were given one point credit towards the school lab, and participants in Prolific were paid $1.50 for their participation.

Our survey had a two by two by two design: race of target, gender of target, and two pain scenarios. This resulted in eight conditions. Assuming a moderate effect size based on prior research (Trawalter, Hoffman, & Waytz, 2012), we needed approximately 50 participants per condition. We planned to collect data from approximately 450 people to ensure 400 usable cases.

Sample A consisted of 113 BYU Students (n = 113) with an average age of 21.6 years, ranging from 18 to 45. Male participants totaled 48 and females totaled 65, respectively 42.5% and 57.5% of total participants. The racial demographics of the survey participants included: 83% White, 11.5% Asian, 2% Black/African, 1% American

Indian/Alaska Native, 1% and Native Hawaiian/Pacific Islander, and 10% other races[1]. Only 11 total participants were currently in a paid supervisory role.

Because we were only able to get 113 of our needed 450 participants, we then administered the survey on Prolific[2]. Sample B collected data from 362 participants, of which 338 were usable (n = 338); 24 responses were not usable due to our screening questions requiring that the participant currently works in a full- or part-time position.

Participants for the survey were limited to location of the United States or United Kingdom. The average age of our participants was 38.2 years, ranging from 18 to 72. Male participants totaled 182, females totaled 150, non-binary totaled 4, and preferred not to answer totaled 2, respectively 53.8%, 44.4%, 1.2%, and 0.6% of total participants. The racial demographics of the survey participants included: 84% White, 8% Asian, 7% Black/African American, 1% American Indian/Alaska Native, less than 1% Native Hawaiian/Pacific Islander, and 2% selected another race. Participants currently living in the United Kingdom totaled 150 and participants living in the United States totaled 170.

Of all 338 participants' highest degree received, 2% had a professional degree, 3% had a doctoral agree, 16% had a master's degree, 40% had a bachelor's degree, 11%% had an associate degree, 15% had some college experience but no degree, 13% had graduated high school, and less than 1% had less than a high school degree.

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[1] Participants could select multiple races, so the percentages do not add up to 100.

[2] Prolific is an online research platform that connects research to participants around the world by paying participants for their time.

Participants who were currently working in a paid supervisory role totaled 174 compared to 164 who did not work in a paid supervisory role. All of our participants were currently working part- or full-time. Our Prolific respondents represented a broader sample as all were currently working and represented more demographic groups.

Procedure

The study was administered online through Qualtrics. Participants read a scenario where the participant was an IT consultant on a team of five members. The participants met their team members, seeing each of their names, accompanying photos, and unique job roles. Each team consisted of a White male, White female, Black male, and Black female. There were four versions of the presentation of the team members, giving each team member equal opportunity to be the first shown on the list (see Appendix).

Research has looked at the effect of names in racial bias. By sending equal resumes with different White and Black names, Blacks were contacted significantly less than Whites; research has shown this gap to be anywhere from 10% to 36% (Kline, Rose, & Walters, 2022; Lincoln, Devah, Ole, & Arnfinn, 2017). Though research has found varying amounts of difference, all research has found statistically significant differences based on the name of the application. This shows that the name of a person can create bias based on cultural stereotypes. Because of this, I chose names that are common to each race.

After meeting the team, the participant was notified of a negative life event occurring in the life of one of their team members. The negative life event, which was

written to be perceived as out of the team member's control, was randomized between being diagnosed with brain cancer or having a parent pass away. The team member who had the negative event occur in their life was also randomized.

In our survey, we also included two attention checks to make sure the participant remembered the race and gender of the target.

Variables

Dependent Variables

Our first dependent variable is state empathy. The participants answered three questions that rated their state empathy (Everson, et al., 2018). State empathy allowed us to measure the participant's empathy toward the randomized target, allowing us to see if there are differences in empathy responses based on the target's race. The original three item measurement had a Cronbach's alpha of 0.567. Because this alpha is below accepted levels, I dropped one of the items and used a two-item measure (alpha = 0.68).

A second dependent variable was perspective taking. The participant answered four questions, measured on a Likert scale, which rated the participant's perspective taking in response to the negative event. The four questions were adapted from Grant and Berry's research on perspective taking (Grant & Berry, 2011). The Cronbach's alpha for the perspective taking measure was 0.929.

The third dependent variable was emotional response. The participants rated their perception of the target's feelings and emotions on the Job-Related Affective Well-Being

scale (JAWS), which includes items such as content, relaxed, calm, depressed, tense, distressed, and anxious (Van Katwyk, Fox, Spector, & Kelloway, 2000). We created four subscales: positive low, negative low, positive high, and negative high. Using these ratings, we were able to see if participants rated the target's feelings and emotions differently depending on the target's race. The specific emotions we will focus on for our research are negative high emotions, including distressed, agitated, anxious, and tense. The Cronbach's alpha for this measurement was 0.72.

Independent Variables

Independent variables in this study were the race, Black or White, and gender, Male or Female, of the team member. These independent variables were assigned randomly and equally.

Mediators

The participant answered questions regarding perceived similarity and perceived control. Both were measured on a Likert scale. The questions were taken from Trawalter's research and slightly modified for this study (Trawalter, Hoffman, & Waytz, 2012). One item measures were used for both perceived similarity and perceived control. The perceived similarity measure was measured by asking, "How similar do you feel to [the target]", with a Likert scale response from "not similar at all" to "extremely similar".

For perceived control, the participant answered, “How much control do you feel that [the target] has in this situation?” on a Likert scale from “no control” to “full control”.

Control Variables

I controlled for participants’ trait empathy. This measure of empathy was based on the Davis’s Interpersonal Reactivity Index (IRI). The IRI consists of four subscales: perspective taking, empathic concern, personal distress, and fantasy (Davis, 1980; Davis, 1983). Applying the IRI allowed empathy to be looked at as a whole as well as from a view of each subscale. To reduce participant fatigue, the specific questions came from the brief version of Davis’s Interpersonal Reactivity Index to measure the level of empathy, also known as the B-IRI (Ingoglia, Lo Coco, & Albiero, 2016). Of the B-IRI, we used three subscales: perspective taking, empathic concern, and personal distress. The composite B-IRI had a Cronbach’s alpha of 0.766. Trait empathy was measured to account for the varying natural levels of empathy individuals have. Measuring trait empathy will help to separate individual differences and see if there is a general lack of state empathy based on the target’s race.

Other control variables in the study were gender, race, and age of the participant.[3] I included participant gender (coded as male (1) and female (0)) and race (coded as White

[3] There was a block of the survey were the participant self-rated themselves on the ten-item Big-5 personality inventory (Gosling, Rentfrow, and & Swan, 2003). This block was used to break up our measures of interest, and not used as a control in our analysis.

(1) versus non-White (0)) to account for actual similarity between the participant and the scenario protagonist as well as to account for gender or race differences in empathy.

Next, we controlled for the type of negative scenario (death of a loved one or personal cancer) that had happened in the life of the participant. This would see if personal experience with the negative event significantly influenced the participant's responses. There was no significant difference in state empathy based on the participants' responses to this question, but I include this control in my analyses.

IV. Results

All analysis was conducted in RStudio. I used ANOVA and ANCOVA techniques to test my hypothesis.

Attention Check

Two attention checks were used in this survey to confirm that the participant was paying attention to the race and gender of the target. All participants correctly answered their attention checks.

Correlations

Table 1 below shows correlations of our conditions and our different measures, including the standard deviations and means. Our Male condition and Black condition, which we hypothesized to have an effect on empathy and emotions, had no strong correlations with any of our measurements and responses. The strongest correlation was between perspective taking and trait empathy, which had a moderate correlation of 0.481.

Table 1: Correlation Matrix with Means and Standard Deviations

	Mean	St. Dev	1	2	3	4	5	6	7	8	9	10
1. Male Condition	0.481	0.500										
2. Black Condition	0.517	0.500	0.017									
3. Illness Condition	0.512	0.500	0.052	0.068								
4. JAWS: Negative High	4.044	0.924	-0.093	0.009	-0.170							
5. Perspective Taking	3.917	0.885	-0.090	0.085	-0.029	0.136						
6. State Empathy	4.720	0.517	-0.057	-0.046	0.009	0.345	0.359					
7. Trait Empathy (IRI)	3.679	0.540	-0.040	-0.014	-0.035	0.110	0.481	0.357				
8. Perceived Similarity	2.237	1.067	0.015	0.036	0.096	0.112	0.174	0.125	0.074			
9. Perceived Control	1.659	0.779	-0.034	0.054	0.005	-0.231	-0.132	-0.225	-0.045	0.057		
10. Participant Gender	1.508	0.542	-0.051	0.047	-0.035	0.072	0.134	0.125	0.034	-0.040	-0.135	
11. Participant Race	0.800	0.400	-0.041	0.028	-0.077	0.033	0.003	0.055	0.007	-0.035	-0.005	0.007

n = 451

ANOVA and ANCOVA

An ANCOVA was run on all three of the dependent variables: state empathy, perspective taking, and emotional response (JAWS Negative High).

The analysis of state empathy shows a significant relationship with perceived control, perceived similarity, trait empathy, and participant gender; however, none of these relationships support my first hypothesis. Neither target race nor gender have a significant effect on our dependent variables (Table 2). Thus, the results for state empathy do not support my first hypothesis that state empathy has a significant relationship with the race of the target (White male mean = 4.7427, S.D. = 0. 5852; Black male mean = 4.8186, S.D. = 0.41221; White female mean = 4.9217, S.D. = 0.26976; Black female mean = 4.7797, S.D. = 0.54515). There is a significant interaction between the male condition and Black condition (Table 3). Figure 1 illustrates this significance, showing that White female targets received significantly higher ratings of state empathy.

Table 2: State Empathy – ANCOVA

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	0.5	0.495	2.665	0.10327	
Black Condition	1	0.15	0.148	0.799	0.37185	
Illness Condition	1	0.00	0.003	0.016	0.89856	
Control	1	3.9	3.904	21.022	5.92e-06	***
Similarity	1	1.26	1.258	6.773	0.00957	**
Trait Empathy (IRI)	1	10.38	10.379	55.883	4.18e-13	***
Participant Gender	1	0.75	0.749	4.033	0.04523	*
Participant Race	1	0.33	0.217	1.168	0.28033	
Residuals	441	81.90	0.186			

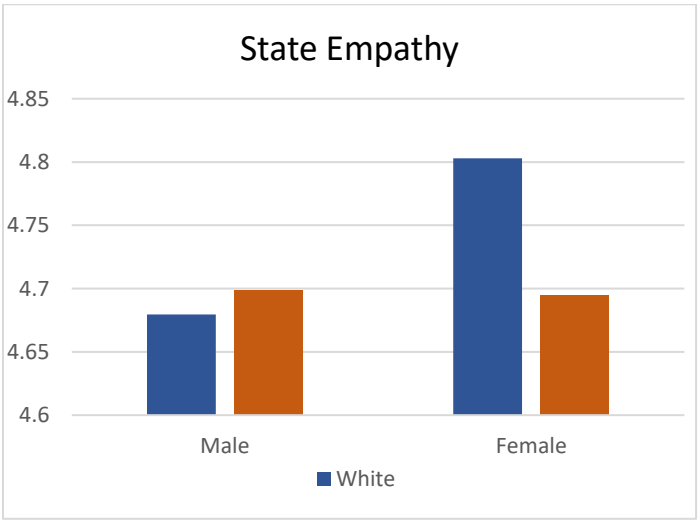
This table shows the ANCOVA analysis with state empathy as the dependent variable. This analysis does not include any interactions, but includes the independent variables, mediators, and control variables.

Table 3: State Empathy – ANCOVA with Interaction

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	0.50	0.495	2.703	0.10089	
Black Condition	1	0.15	0.148	0.810	0.36851	
Illness Condition	1	0.00	0.003	0.017	0.89785	
Control	1	3.90	3.904	21.317	5.12e-06	***
Similarity	1	1.26	1.258	6.868	0.00908	**
Trait Empathy (IRI)	1	10.38	10.379	56.668	2.95e-13	***
Participant Gender	1	0.75	0.749	4.090	0.04375	*
Participant Race	1	0.22	0.217	1.185	0.27698	
Male Condition : Black Condition	1	1.32	1.318	7.194	0.00759	**
Residuals	440	80.59	0.183			

This table shows the ANCOVA analysis with state empathy as the dependent variable. This analysis does include an interaction between the gender condition and race condition, as well as includes the independent variables, mediators, and control variables.

Figure 1: State Empathy Bar Chart



This bar chart shows the different levels of participants' state empathy based on the four different targets. White male is the lowest, while White female is the highest.

Perspective taking has a significant relationship with many of our variables: male condition, Black condition, perceived control, perceived similarity, trait empathy, and the participant's gender (Table 4). We also found a significant interaction between our male and Black conditions on perspective taking (Table 5). Perspective taking had a negative relationship with the male condition, but a positive relationship with the Black condition; that means a participant ranked their perspective taking the lowest when the target was a White male (White male mean = 3.6481, S.D. = 1.01184; Black male mean = 3.9934, S.D. = 0.73151; White female mean = 4.0109, S.D. = 0.84966; Black female mean = 3.9769, S.D. = 0.89962). These findings do not support my second hypothesis and show that it is actually the White male target for whom participants have the lowest perspective taking.

Table 4: Perspective Taking – ANCOVA

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	2.86	2.86	5.054	0.025060	*
Black Condition	1	2.62	2.62	4.624	0.032077	*
Illness Condition	1	0.32	0.32	0.570	0.450566	
Control	1	6.93	6.93	12.232	0.000517	***
Similarity	1	11.98	11.98	21.146	5.57e-06	***
Trait Empathy (IRI)	1	74.23	74.23	131.002	< 2e-16	***
Participant Gender	1	3.47	3.47	6.119	0.013751	*
Participant Race	1	0.00	0.00	0.008	0.930116	
Residuals	442	250.46	0.57			

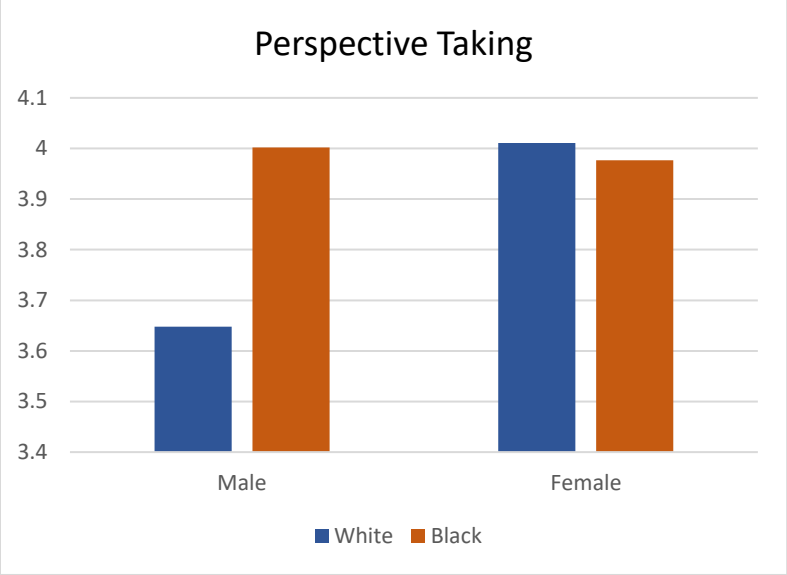
This table shows the ANCOVA analysis with state empathy as the dependent variable. This analysis does not include any interactions, but includes the independent variables, mediators, and control variables.

Table 5: Perspective Taking – ANCOVA with Interaction

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	2.86	2.86	5.054	0.025060	*
Black Condition	1	2.62	2.62	4.624	0.032077	*
Illness Condition	1	0.32	0.32	0.570	0.450566	
Control	1	6.93	6.93	12.232	0.000517	***
Similarity	1	11.98	11.98	21.146	5.57e-06	***
Trait Empathy (IRI)	1	74.23	74.23	131.002	< 2e-16	***
Participant Gender	1	3.47	3.47	6.119	0.013751	*
Participant Race	1	0.00	0.00	0.008	0.930116	
Male Condition : Black Condition	1	4.98	4.98	8.951	0.002929	**
Residuals	441	245.48	0.56			

This table shows the ANCOVA analysis with state empathy as the dependent variable. This analysis does not include any interactions, but includes the independent variables, mediators, and control variables.

Figure 2: Perspective Taking Bar Chart



This bar chart shows the different engagement levels of a participant's perspective taking, based on the four different targets. White male is the lowest, while all others are close to each other.

An analysis of JAWS Negative High, or the emotional response, shows how our participants rate the target's emotions. Emotional response has a significant relationship with similarity, trait empathy, participant gender, and participant race. A lack of significance in both the race and gender conditions (Table 6), as well as their interactions (Table 7), does not support my hypothesis that target race and gender will affect how a participant ranks the target's emotions in a negative situation (White male mean = 3.6481, S.D. = 1.01184; Black male mean = 3.9934, S.D. = 0.73151; White female mean = 4.0109, S.D. = 0.84966; Black female mean = 3.9769, S.D. = 0.89962). Figure 3 shows the different emotional ratings between gender and races, though the differences were not significant.

Table 6: JAWS Negative High – ANCOVA

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	3.3	3.292	4.295	0.038802	*
Black Condition	1	0.0	0.040	0.052	0.819595	
Illness Condition	1	10.6	10.644	13.886	0.000219	***
Control	1	21.2	21.232	27.699	2.21e-07	***
Similarity	1	7.8	7.832	10.218	0.001490	**
Trait Empathy (IRI)	1	2.4	2.390	3.119	0.078093	
Participant Gender	1	0.4	0.353	0.460	0.497960	
Participant Race	1	0.1	0.119	0.156	0.693155	
Residuals	442	338.8	0.767			

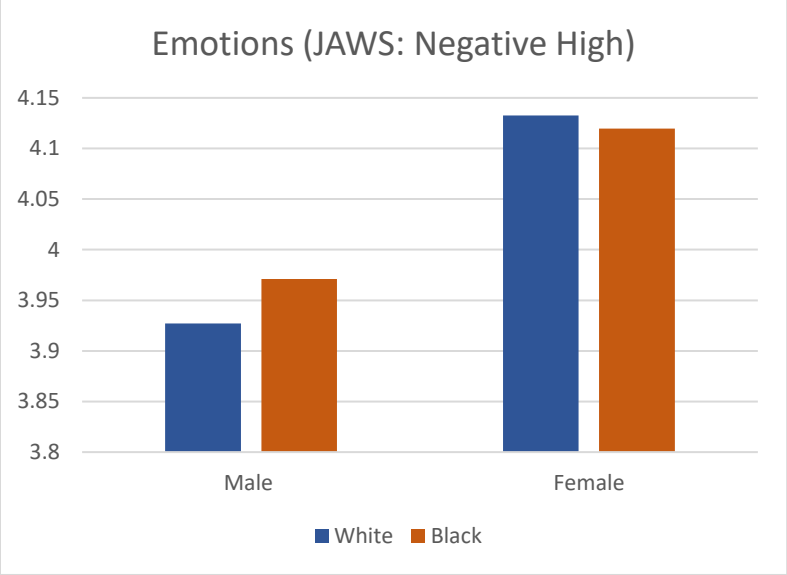
This table shows the ANCOVA analysis with state empathy as the dependent variable. This analysis does not include any interactions, but includes the independent variables, mediators, and control variables.

Table 7: JAWS Negative High – ANCOVA with Interaction

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	3.3	3.292	4.295	0.038802	*
Black Condition	1	0.0	0.040	0.052	0.819595	
Illness Condition	1	10.6	10.644	13.886	0.000219	***
Control	1	21.2	21.232	27.699	2.21e-07	***
Similarity	1	7.8	7.832	10.218	0.001490	**
Trait Empathy (IRI)	1	2.4	2.390	3.119	0.078093	
Participant Gender	1	0.4	0.353	0.460	0.497960	
Participant Race	1	0.1	0.119	0.156	0.693155	
Male Condition : Black Condition	1	0.5	0.503	0.656	0.418579	
Residuals	441	338.3	0.767			

This table shows the ANCOVA analysis with state empathy as the dependent variable. This analysis does not include any interactions, but includes the independent variables, mediators, and control variables.

Figure 3: Emotions Bar Chart



This bar chart shows differences between participants' ratings of the target's emotions for each of the four different targets. White male is the lowest, with Black male being a bit above, and White and Black females being significantly higher and close to each other.

An ANCOVA was run for the proposed mediators, perceived similarity (Table 5) and perceived control (Table 6). Neither proposed mediator had a significant relationship with the race or gender condition. Because our proposed mediators didn't have a significant relationship with our race conditions, we did not test for mediation.

Table 84: Perceived Similarity – ANCOVA

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	0.1	0.110	0.097	0.7559	
Black Condition	1	0.7	0.666	0.587	0.4440	
Illness Condition	1	4.5	4.497	3.962	0.0471	*
Trait Empathy (IRI)	1	3.1	3.136	2.763	0.0972	
Participant Gender	1	0.8	0.812	0.716	0.3981	
Participant Race	1	0.4	0.407	0.358	0.5497	
Residuals	444	504.0	1.135			

This table shows the ANCOVA analysis for our first mediator, perceived similarity. This analysis does not include any interactions but includes the independent variables and control variables.

Table 95: Perceived Similarity – ANCOVA with Interaction

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	0.1	0.110	0.097	0.7559	
Black Condition	1	0.7	0.666	0.587	0.4440	
Illness Condition	1	4.5	4.497	3.962	0.0471	*
Trait Empathy (IRI)	1	3.1	3.136	2.763	0.0972	
Participant Gender	1	0.8	0.812	0.716	0.3981	
Participant Race	1	0.4	0.407	0.358	0.5497	
Male Condition : Black Condition	1	0.4	0.418	0.368	0.5447	
Residuals	443	503.6	1.137			

This table shows the ANCOVA analysis for our first mediator, perceived similarity. This analysis includes an interaction between the race and gender conditions, and also includes the independent variables and control variables.

(White male mean = 2.23, S.D. = 1.077; Black male mean = 2.28, S.D. = 0.995; White female mean = 2.17, S.D. = 1.092; Black female mean = 2.28, S.D. = 1.112).

Table 10: Perceived Control – ANCOVA

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	0.31	0.309	0.516	0.47307	
Black Condition	1	0.83	0.829	1.381	0.24052	
Illness Condition	1	0.00	0.003	0.004	0.94784	
Trait Empathy (IRI)	1	0.57	0.570	0.950	0.33021	
Participant Gender	1	5.26	5.262	8.769	0.00323	**
Participant Race	1	0.02	0.016	0.027	0.86974	
Residuals	444	266.43	0.600			

This table shows the ANCOVA analysis for our second mediator, perceived control. This analysis does not include an interaction but includes the independent variables and control variables.

Table 11: Perceived Control – ANCOVA with Interaction

	Df	Sum Sq	Mean Sq	F value	Pr (>F)	
Male Condition	1	0.31	0.309	0.516	0.47307	
Black Condition	1	0.83	0.829	1.381	0.24052	
Illness Condition	1	0.00	0.003	0.004	0.94784	
Trait Empathy (IRI)	1	0.57	0.570	0.950	0.33021	
Participant Gender	1	5.26	5.262	8.769	0.00323	**
Participant Race	1	0.02	0.016	0.027	0.86974	
Male Condition : Black Condition	1	0.45	0.446	0.742	0.38940	
Residuals	442	265.98	0.600			

This table shows the ANCOVA analysis for our second mediator, perceived control. This analysis includes an interaction between the race and gender conditions, and also includes the independent variables and control variables.

(White male mean = 1.62, S.D. = 0.688; Black male mean = 1.65, S.D. = 0.693; White female mean = 1.61, S.D. = 0.824; Black female mean = 1.76, S.D. = 0.883).

V. Discussion

Though some of the study results were significant, they do not support my original hypothesis. I hypothesized that participants would feel less empathy for Black targets than White targets. I also hypothesized that participants would be able to take the perspective of Black targets less.

The results showed that participants feel the lowest empathy towards White males and are the least able to take his perspective. Empathy for White females was the highest, but empathy for Black males and females was still higher than for White males. Perspective taking for Black males, White females, and Black females were rated similarly and significantly higher than for White males. These results are interesting because they are opposite of the results found in Trawalter's racial empathy study. Though Trawalter's study focuses on NFL players and medical treatment, similar measures and controls were used in this research.

I conducted a follow-up study to see if I could replicate these results and to test a behavioral outcome measure. The study included a more in-depth workplace scenario that allowed the participants to donate some of their personal time off (PTO) to the target after experiencing a negative life event; this attempted to create a more realistic scenario paired with a behavioral measure. An analysis of the data from the follow-up study does not show any significant effects based on the race or gender of the target, disproving the original hypotheses, and failing to replicate the findings from the primary study. I did find that empathy significantly predicted the amount of PTO donated, but I did not find direct effects of gender or race.

Future studies could look at the effect of power on different levels of empathy. It could further seek to understand how power changes the perceived control of an individual, which results in different empathy. It could also look to see if a racial empathy gap exists across different levels of power, such as with managers and subordinates.

Another consideration is the effect of social desirability biases. Social desirability is a participant's tendency to bias their responses so that they are more socially acceptable and will be viewed more favorably. Past research has found that social desirability bias is more common when the research is on a sensitive or controversial issue (Grimm, 2010). The Black Lives Matter is a social movement that has been very prominent the past few years, resulting in higher cultural sensitivity and controversy around racism. In 2020, LinkedIn data showed that the head of diversity titles doubled over the previous five years (Anderson, 2020). An increase of sensitivity to racism both through social movements and through workplace changes could increase a participant's sensitivity to the issue, resulting in a bias in their responses.

Social desirability can be influenced by many factors, from how the question is asked to what social costs are perceived. For socially sensitive questions, indirect questioning techniques have been found to reduce social desirability bias (Fisher, 1993). Future research could add preemptive measures to lessen social desirability bias and add a social desirability measure to control for biases that might influence results.

When considering the Trawalter study, there was an element of realism with seeing injuries and pain of NFL players and hospital patients. The study I conducted lacked the realism of the scenario and the target's pain. Future research could consider changing the type of issue (in this survey, the illness or death of a parent) to a more

visible, real issue. This could help overcome social desirability biases and generate more authentic responses. Future research could conduct behavioral studies in the workplace to increase realism or could analyze real workplace data.

VI. Conclusion

This study sought to find whether a racial empathy gap exists in the workplace, and if it contributes to racial disparities. The findings of this study do not support the existence of a racial empathy gap in the workplace. The results showed that White males received less empathy than any other group, which was unexpected and not replicated in a second study. Though this initial finding is hopeful in our society's aim to eliminate all disparities, it does not align with years of research which establish the existence of such disparities.

References

Anderson, B. M. (2020, September 2). *Why the Head of Diversity is the Job of the Moment*. Retrieved from LinkedIn.

Banissy, M. J., Kanai, R., Walsh, V., & Rees, G. (2012, September). Inter-individual differences in empathy are reflected in human brain structure. *NeuroImage, 62*(3), 2034-2039.

Batson, C. D., Eklund, J. H., Chermok, V. L., Hoyt, J. L., & Otriz, B. G. (2007). An additional antecedent of empathic concern: Valuing the welfare of the person in need. *Journal of Personality and Social Psychology, 93*(1), 65-74.

Clements, K., Holtzworth-Munroe, A., Schweinle, W., & Ickes, W. (2009, September 10). Empathic accuracy of intimate partners in violent versus nonviolent relationships. *Personal Relationships, 14*(3), 369-388.

Cuff, B. M., Brown, S. J., Taylor, L., & Howat, D. J. (2016, April). Empathy: A Review of the Concept. *Emotion Review, 8*(2), 144-153.

David, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*(1), 113-126.

Davis, M. H. (1980, January). A Multidimensional Approach to Individual Differences in Empathy. *Journal of Personality and Social Psychology, 10*(85).

Eisenberg, N., & Morris, A. S. (2001). The Origins and Social Significance of Empathy-Related Responding. A Review of Empathy and Moral Development: Implications for Caring and Justice by M. L. Hoffman. *Social Justice Research, 14*, 95-120.

Ekehammar, B., & Akrami, N. (2003, November). The Relation between Personality and Prejudice: A Variable- and a Person-Centred Approach. *European Journal of Personality, 17*(6), 449-464.

Elfenbein, H. A., & Ambady, N. (2002). On the Universality and Cultural Specificity of Emotion Recognition: A Meta-Analysis. *Psychological Bulletin, 128*(2), 203-235.

Everson, N., Levett-Jones, T., Pitt, V., Lapkin, S., Van Der Riet, P., Rossiter, R., . . . Pratt, H. C. (2018). Analysis of the Empathic Concern Subscale of the Emotional Response Questionnaire in a Study Evaluating the Impact of a 3D Cultural Simulation. *Int J Nurs Educ Scholarsh, 25*(15).

Fisher, R. J. (1993). Social desirability bias and the validity of indirect questioning. *Journal of Consumer Research*, 303-315.

Gaddis, S. M. (2017, September 6). How Black Are Lakisha and Jamal? Racial. *Sociological Science, 4*, 469-89.

Galinsky, A. D., & Moskowitz, G. B. (2000, April). Perspective-taking: decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology, 78*(4), 708-724.

Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006, December). Power and Perspectives Not Taken. *Psychological Science, 17*(12), 1068–1074.

Galinsky, A. D., Wang, C., & Ku, G. (2005). The Defecting Perspective-Taker: The Impact of Stereotypes and Perspective-Taking in a Prisoner's Dilemma. *Proceedings of the IACM 18th Annual Conference.* Seville, Spain.

Gosling, S. D., Rentfrow, P. J., & Swan, W. B. (2003). A very brief measure of the Big-Five. *Journal of Research in Personality*, 504-528.

Grant, A. M., & Berry, J. W. (2011, November). The Necessity of Others is The Mother of Invention: Intrinsic and Prosocial Motivations, Perspective Taking, and Creativity. *Academy of Management Journal, 54*(1), 73-96.

Greenwald, A. G., Poehlman, T. A., Uhlmann, E. L., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology, 97*, 17-41.

Grimm, P. E. (2010, December 15). Social Desirability Bias. *Wiley International Encyclopedia of Marketing*.

Hoffman, K. M., Trawalter, S., Axt, J. R., & Oliver, M. N. (2016, April). Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. *Proceedings of the National Academy of Sciences, 113*(16), 4296-4301.

Ingoglia, S., Lo Coco, A., & Albiero, P. (2016). Development of a Brief Form of the Interpersonal Reactivity Index (B–IRI). *Journal of Personality Assessment, 98*(5), 461-471.

Kaiser, C. R., & Pratt-Hyatt, J. S. (2009). Distributing prejudice unequally: Do Whites direct their prejudice toward strongly identified minorities? *Journal of Personality and Social Psychology, 96*(2), 432-445.

King, S. K., DeCelles, K. A., Tilcsik, A., & Jun, S. (2016). Whitened résumés: Race and self-presentation in the labor market. *Administrative Science Quarterly, 61*(3), 469–502.

Kline, P., Rose, E. K., & Walters, C. R. (2022, November). Systemic Discrimination Among Large U.S. Employers. *The Quarterly Journal of Economics, 137*(4), 1963–2036.

Kochhar, R. (2023, Mar 1). *The Enduring Grip of the Gender Pay Gap*. Retrieved from Pew Research Center: https://www.pewresearch.org/social-trends/2023/03/01/the-enduring-grip-of-the-gender-pay-gap/#gender-pay-gap-differs-widely-by-race-and-ethnicity

Kunda, Z., & Spencer, S. J. (2003). When Do Stereotypes Come to Mind and When Do They Color Judgment? *Psychological Bulleti, 129*(4), 522-544.

Lincoln, Q., Devah, P., Ole, H., & Arnfinn, H. M. (2017). Meta-Analysis of Field Experiments Shows No Change in Racial Discrimination in Hiring over Time. *Proceedings of the National Academy of Sciences, 114*, 10870–10875.

Lishner, D. A., Batson, C. D., & Huss, E. (2011). Tenderness and sympathy: Distinct empathic emotions elicited by different forms of. *Personality and Social Psychology Bulletin, 37*(5), 614-625.

Meschede, T., Sullivan, L., Shapiro, T., Kroeger, T., & Escobar, F. (2019). Not Only Unequal Paychecks: Occupational Segregation, Benefits, and the Racial Wealth Gap. *Institute on Assets and Social Policy*.

Oakes, P. J., & Turner, J. C. (1980). Social categorization and intergroup behaviour: Does minimal intergroup discrimination make social identity more positive? *European Journal of Social Psychology, 10*(3), 295-301.

Office of Federal Contract Compliance Programs. (2020). *Earnings Disparities by Race and Ethnicity.* U.S. Department of Labor.

Patten, E. (2016, July 1). *Racial, gender wage gaps persist in U.S. despite some progress*. Retrieved from Pew Research Center: https://www.pewresearch.org/fact-tank/2016/07/01/racial-gender-wage-gaps-persist-in-u-s-despite-some-progress/

Tajfel, H. (1974). Social identity and intergroup behaviour. *Social Science Information, 13*, 65-93.

Trawalter, S., Hoffman, K. M., & Waytz, A. (2012, November 12). Racial Bias in Perceptions of Others' Pain. *PLoS ONE, 7*(11).

Triana, M. D., Jayasinghe, M., & Pieper, J. R. (2015). Perceived workplace racial discrimination and its. *Journal of Organizational Behavior, 36*(4), 491-513.

U.S. Equal Employment Opportunity Commission. (2023). *2022 Annual Performance Report (APR).* U.S. Equal Employment Opportunity Commission.

Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the Job-Related Affective Well-Being Scale (JAWS) to investigate affective responses to work stressors. *Journal of occupational health psychology, 5*(2), 219.

Wang, C. S., Ku, G., Tai, K., & Galinsky, A. D. (2013, September). Stupid Doctors and Smart Construction Workers: Perspective-Taking Reduces Stereotyping of Both Negative and Positive Targets. *Social Psychological and Personality Science, 5*, 430-436.

Wingfield, A. H., & Chavez, K. (2020). Getting In, Getting Hired, Getting Sideways Looks: Organizational Hierarchy and Perceptions of Racial Discrimination. *American Sociological Review, 85*(1), 31-57.

Appendix: Survey Elements

Start of Block: Introduction

Welcome to the research study!

You will be presented with a workplace scenario and asked to answer some questions about it. Please be assured that your responses will be kept completely confidential. The study should take you around 10 minutes to complete. Your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice.

Please enter the participant ID number given to you by the researcher.

_____

End of Block: Introduction

Start of Block: Informed Consent

Consent to be a Research Subject

Title of the Research Study: Empathy at Work
Principal Investigator: Taeya Howell, PhD
IRB ID# IRB2023-004

Introduction

This research study is being conducted by Taeya Howell, PhD, Assistant Professor of Management in the BYU Marriott School of Business to determine how people respond to stressors at work.

You have been invited to participate because you are currently enrolled in a class at the BYU Marriott School of Business.

Procedures

If you agree to participate in this research study, the following will occur:

- You will read a scenario and answer questions based on this scenario
- The study will take place online through Qualtrics
- The study will take approximately 10 minutes to complete

Risks/Discomforts

There are minimal risks for participation in this study. These risks are nothing greater than you experience in everyday life. No personal identifying information will be collected.

Benefits

There are no direct benefits to you for participating. However, the results of this study may increase understanding of individual behavior and thereby increase our knowledge about how people respond to others at work.

Confidentiality

The data you provide will only be accessible to the researchers involved in this study. The data is anonymous. No identifying information (e.g., name, email, ID) will be solicited. Material gathered during this research will be coded and kept confidentially by the researchers with only the researchers having access. It will be securely stored on encrypted devices or in password-protected account on Dropbox with restricted access for at least seven years.

Data Sharing

We will keep the information we collect from you during this research study for analysis and for potential use in future research projects, but we are not collecting any identifying information. Your anonymous data will be kept by the primary investigator and may be used for meta-analytic purposes, shared as a requirement for publication, or be made available as a public data set for secondary analysis.

Compensation

You will receive credit (or extra credit) for your participation as determined by your professor. This (extra) credit will be awarded at the end of the semester. This study is worth 1 point of sona credit.

Participation

Involvement in this research project is voluntary. You may withdraw at any time without penalty or refuse to participate entirely.

Questions about the Research

If you have questions regarding this study you may contact Taeya Howell at

801.422.0430 or thowell@byu.edu.

Questions about Your Rights as Research Participants
If you have questions regarding your rights as a participant in research projects, you may contact: BYU Human Research Protection Program, (801) 422-1461, BYU.HRPP@byu.edu.

Statement of Consent
I have read and understood the above consent and desire of my own free will to participate in this study. If I desire a copy of this consent, I may print this screen.

By clicking the button below, you acknowledge that your participation in the study is voluntary, you are 18 years of age or older, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

- ○ I consent, begin the study
- ○ I do not consent, I do not wish to participate

End of Block: Informed Consent

Start of Block: Participant Role

For this study, please imagine that you work as an IT consultant. You consult with companies to better integrate technologies into their businesses. This can be through new technical solutions, new platforms, or changing the IT structure.

You are currently working on creating a new network and system for a client. You are close to done with creating the new network, and your next step will be to help implement the new network and show the client how to effectively use it.

End of Block: Participant Role

Start of Block: DeShaunFirst

Meet the Team

You work on a consulting **team with four other people:** DeShaun, Emily, Kiara, and

Tyler.

Your manager created this team a few months ago, and so each of you joined the team at the same time. All of you have roughly the same level of work experience.

Your manager assigns projects to the entire team and never to an individual employee. Because of this, the team works together often, and each team member brings different skills and expertise. Each team member's expertise is essential to meeting project expectations and client demands.

Please read the information below about the other members of your team:

DeShaun	Emily	Kiara	Tyler
			
People Consultant	Strategy Consultant	Financial Consultant	Operations Consultant
DeShaun focuses on the structure of the organization. He brings great training skills to the team, being the lead implementer.	Emily's primary focus is on the management of the company, like the c-suite. She brings great research and quantitative skills to the team.	Kiara addresses all financial capabilities, with specific experience in risk management. She brings strong analytical skills to the team.	Tyler helps a company improve the effectiveness of their overall operations. He also brings expertise with technology to the team.

End of Block: DeShaunFirst

Start of Block: EmilyFirst

Meet the Team

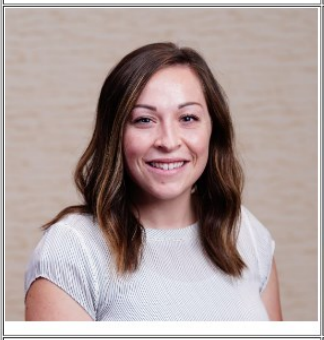
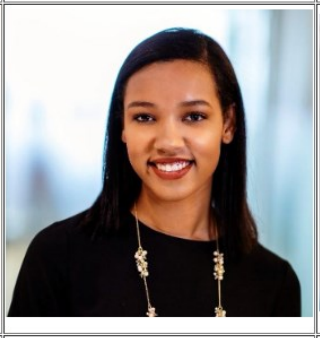
You work on a consulting **team with four other people**: Emily, Kiara, Tyler, and DeShaun.

Your manager created this team a few months ago, and so each of you joined the team at

the same time. All of you have roughly the same level of work experience.

Your manager assigns projects to the entire team and never to an individual employee. Because of this, the team works together often, and each team member brings different skills and expertise. Each team member's expertise is essential to meeting project expectations and client demands.

Please read the information below about the other members of your team:

Emily	Kiara	Tyler	DeShaun
			
Strategy Consultant	Financial Consultant	Operations Consultant	People Consultant
Emily's primary focus is on the management of the company, like the c-suite. She brings great research and quantitative skills to the team.	Kiara addresses all financial capabilities, with specific experience in risk management. She brings strong analytical skills to the team.	Tyler helps a company improve the effectiveness of their overall operations. He also brings expertise with technology to the team.	DeShaun focuses on the structure of the organization. He brings great training skills to the team, being the lead implementer.

End of Block: EmilyFirst

Start of Block: KiaraFirst

Meet the Team

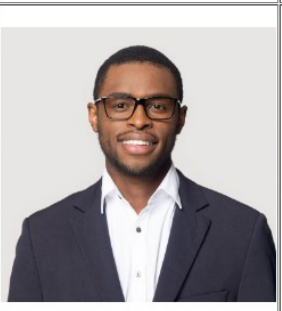
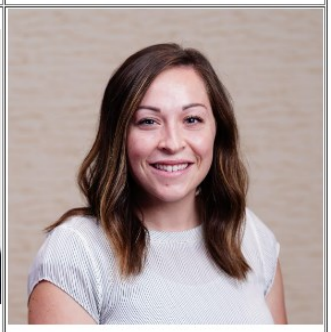
You work on a consulting **team with four other people**: Kiara, Tyler, DeShaun, and Emily.

Your manager created this team a few months ago, and so each of you joined the team at the same time. All of you have roughly the same level of work experience.

Your manager assigns projects to the entire team and never to an individual employee.

Because of this, the team works together often, and each team member brings different skills and expertise. Each team member's expertise is essential to meeting project expectations and client demands.

Please read the information below about the other members of your team:

Kiara	Tyler	DeShaun	Emily
			
Financial Consultant	Operations Consultant	People Consultant	Strategy Consultant
Kiara addresses all financial capabilities, with specific experience in risk management. She brings strong analytical skills to the team.	Tyler helps a company improve the effectiveness of their overall operations. He also brings expertise with technology to the team.	DeShaun focuses on the structure of the organization. He brings great training skills to the team, being the lead implementer.	Emily's primary focus is on the management of the company, like the c-suite. She brings great research and quantitative skills to the team.

End of Block: KiaraFirst

Start of Block: TylerFirst

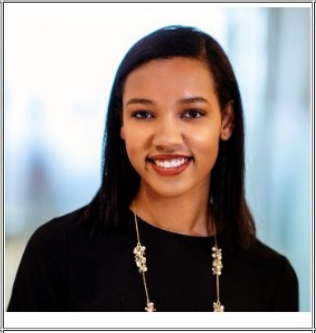
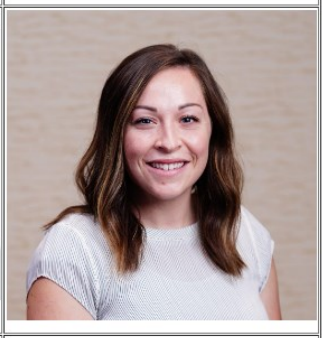
Meet the Team

You work on a consulting **team with four other people**: Tyler, Kiara, DeShaun, and Emily.

Your manager created this team a few months ago, and so each of you joined the team at the same time. All of you have roughly the same level of work experience.

Your manager assigns projects to the entire team and never to an individual employee. Because of this, the team works together often, and each team member brings different skills and expertise. Each team member's expertise is essential to meeting project expectations and client demands.

Please read the information below about the other members of your team:

Tyler	Kiara	DeShaun	Emily
			
Operations Consultant	Financial Consultant	People Consultant	Strategy Consultant
Tyler helps a company improve the effectiveness of their overall operations. He also brings expertise with technology to the team.	Kiara addresses all financial capabilities, with specific experience in risk management. She brings strong analytical skills to the team.	DeShaun focuses on the structure of the organization. He brings great training skills to the team, being the lead implementer.	Emily's primary focus is on the management of the company, like the c-suite. She brings great research and quantitative skills to the team.

End of Block: TylerFirst

Start of Block: Scenario_Illness

You arrive at work as usual today. You are working on designing a new IT network and system for your client.

Halfway through the day, your team is called in for a meeting. You are informed that ${e://Field/Name} has brain cancer. This is news for your entire team. You learn that ${e://Field/Name} won't be in to work the rest of the week because ${e://Field/Gender} will be at the hospital receiving treatments.

End of Block: Scenario_Illness

Start of Block: Scenario_Loss

You arrive to work as usual today. You are working on designing a new IT network and system for your client.

Halfway through the day, your team is called in for a meeting. You learn that ${e://Field/Name} won't be at work the rest of the week because ${e://Field/GenderPro} parent has passed away. While your team doesn't know all the details, you know it was a sudden and unexpected death.

End of Block: Scenario_Loss

Start of Block: PANAS Scale: Distressed and Upset

Below are words that describe different feelings and emotions. Please rate the extent to which you believe ${e://Field/Name} is currently experiencing the following.

	Not at all	A little	A moderate amount	Quite a bit	A great deal
Content	○	○	○	○	○
At ease	○	○	○	○	○
Relaxed	○	○	○	○	○
Calm	○	○	○	○	○
Depressed	○	○	○	○	○
Discouraged	○	○	○	○	○
Gloomy	○	○	○	○	○
Disappointed	○	○	○	○	○
Enthusiastic	○	○	○	○	○
Excited	○	○	○	○	○
Energetic	○	○	○	○	○
Ecstatic	○	○	○	○	○
Anxious	○	○	○	○	○
Tense	○	○	○	○	○
Distressed	○	○	○	○	○
Agitated	○	○	○	○	○

End of Block: PANAS Scale: Distressed and Upset

Start of Block: Perceived Similarity

How similar do you feel to ${e://Field/Name}?

- Not similar at all
- A little similar
- Moderately similar
- Very similar
- Extremely similar

How much control do you feel that ${e://Field/Name} has in this situation?

- No control
- A little control
- A moderate amount of control
- A lot of control
- Full control

End of Block: Perceived Similarity

Start of Block: Perspective Taking

Thinking of working with ${e://Field/Name}, how often would you try and do the following?

	Never	Sometimes	About half the time	Most of the time	Always
I would try to take the perspective of ${e://Field/Name}.	○	○	○	○	○
I would imagine how ${e://Field/Name} is feeling.	○	○	○	○	○
I would make an effort to see the world through the eyes of ${e://Field/Name}.	○	○	○	○	○
I would try to see the viewpoint of ${e://Field/Name}.	○	○	○	○	○

End of Block: Perspective Taking

Start of Block: Empathy Questions

Thinking about ${e://Field/Name}, please indicate how strongly you agree with each of the following statements.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I feel sympathetic for the situation that ${e://Field/Name} is in.	○	○	○	○	○
I feel moved by the situation that ${e://Field/Name} faces.	○	○	○	○	○
I have compassion for ${e://Field/Name}.	○	○	○	○	○

End of Block: Empathy Questions

Start of Block: ManipulationChecks

In the scenario you read above, what gender was ${e://Field/Name}?

- ○ Male
- ○ Female
- ○ Non-binary / third gender
- ○ Unclear

In the scenario you read above, what race was ${e://Field/Name}?

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Other

End of Block: ManipulationChecks

Start of Block: Empathy Ratings

Finally, we have a few questions about you and your background.

Here are a number of personality traits that may or may not apply to you. Please use the scale provided to indicate the extent to which you agree or disagree with that statement.

You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Extroverted, enthusiastic.	○	○	○	○	○	○	○
Reserved, quiet.	○	○	○	○	○	○	○
Sympathetic, warm.	○	○	○	○	○	○	○
Critical, quarrelsome.	○	○	○	○	○	○	○
Open to new experiences, complex.	○	○	○	○	○	○	○
Conventional, uncreative.	○	○	○	○	○	○	○
Anxious, easily upset.	○	○	○	○	○	○	○
Calm, emotionally stable.	○	○	○	○	○	○	○
Dependable, self-disciplined.	○	○	○	○	○	○	○
Disorganized, careless.	○	○	○	○	○	○	○

Page Break

Select which answer best describes you for the following statements.

	Does not describe me	Describes me slightly well	Describes me moderately well	Describes me very well	Describes me extremely well
I often have tender, concerned feelings for people less fortunate than me.	○	○	○	○	○
In emergency situations, I feel apprehensive and ill-at-ease.	○	○	○	○	○
I try to look at everybody's side of a disagreement before I make a decision.	○	○	○	○	○
When I see someone being taken advantage of, I feel kind of protective toward them.	○	○	○	○	○
I sometimes try to understand my friends better by imagining how things look from their perspective.	○	○	○	○	○

Being in a tense emotional situation scares me.	○	○	○	○	○
When I see someone being treated unfairly, I feel very much pity for them.	○	○	○	○	○
I would describe myself as a pretty soft-hearted person.	○	○	○	○	○
I tend to lose control during emergencies.	○	○	○	○	○
When I'm upset at someone, I usually try to put myself in their shoes for a while.	○	○	○	○	○
When I see someone who badly needs help in an emergency, I go to pieces.	○	○	○	○	○

Before criticizing somebody, I try to imagine how I would feel if I were in their place.	○	○	○	○	○

End of Block: Empathy Ratings

Start of Block: Personal_Cancer

Has someone close to you had cancer?

○ Yes

○ No

End of Block: Personal_Cancer

Start of Block: Personal_Death

Has a parent of yours passed away?

○ Yes

○ No

End of Block: Personal_Death

Start of Block: Demographics

*

What is your age in years?

_____

What is your gender?

- ○ Male
- ○ Female
- ○ Non-Binary
- ○ Prefer not to answer

Choose one or more races that you consider yourself to be:

- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Native Hawaiian or Pacific Islander
- ☐ Other _____

What is the highest level of school you have completed or the highest degree you have received?

- ○ Less than high school degree
- ○ High school graduate (high school diploma or equivalent including GED)
- ○ Some college but no degree
- ○ Associate degree in college (2-year)
- ○ Bachelor's degree in college (4-year)
- ○ Master's degree
- ○ Doctoral degree
- ○ Professional degree (JD, MD)

How many years have you lived in the United States?

_____

Are you currently in a paid supervisory role?

- ○ Yes
- ○ No

Page Break

Finally, what did you think this study was about?

_____

End of Block: Demographics