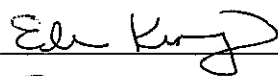


EXPLAINING FOR WHOM, HOW, WHEN, AND WHY DIVERSITY TRAINING  
WORKS

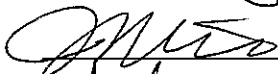
by

Alex Paul Lindsey  
A Dissertation  
Submitted to the  
Graduate Faculty  
of  
George Mason University  
in Partial Fulfillment of  
The Requirements for the Degree  
of  
Doctor of Philosophy  
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Committee:



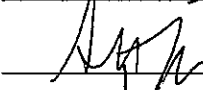
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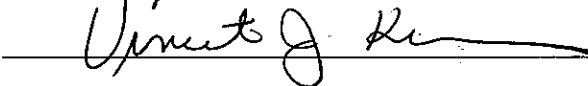




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Date: April 25, 2016

Spring Semester 2016  
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Explaining for Whom, How, When, and Why Diversity Training Works

A Dissertation submitted in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy at George Mason University

by

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## **ABSTRACT**

### **EXPLAINING FOR WHOM, HOW, WHEN, AND WHY DIVERSITY TRAINING WORKS**

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George Mason University, 2016

Dissertation Director: Dr. Eden King

Most organizations rely on diversity training to effectively leverage an ever-diversifying workforce. As a result, critical yet unanswered questions have emerged regarding for whom, how, when, and why diversity training works. Despite somewhat discouraging and inconsistent findings in this domain, no overarching theoretical framework exists to guide the science or practice of diversity training. Accordingly, the purpose of my dissertation is to develop and test a comprehensive model of diversity training effectiveness. Specifically, this model considers emotions and motivations as key, yet generally ignored, mediators in the process by which diversity training affects diversity-related attitudes, behaviors, and cognitions. This model also considers the trainee characteristics of trait empathy and social dominance orientation as moderators of diversity training effectiveness. To test this model empirically, I conducted two separate experiments, one online and one which remains in progress in the field. Overall, the

results suggest that various diversity training activities can be effective via increasing motivation and promoting the appropriate emotional response in carefully framed and designed programs that appeal to particular types of people. These results and my conceptual model will guide future empirical research in the diversity training literature by explaining for whom, how, when, and why diversity training works when it is indeed effective. This model will also offer guidance to practitioners regarding how to effectively leverage diversity training exercises, what outcomes should be measured, when those outcomes should be measured, and what contextual and individual difference variables need to be in place for diversity training to be effective.



## INTRODUCTION

Organizations are increasingly depending on employees to effectively interact with people who are different from themselves. Indeed, diversity in the U. S. workplace has steadily increased over the past 50 years, and this increase is expected to continue in the future (Toosie, 2006). The most common response by organizations to this substantial change has been to institute diversity training programs in the workplace. Approximately two thirds of human resource managers report using diversity training in their organizations (Esen, 2005). As a result, critical yet unanswered questions have emerged regarding for whom, how, when, and why diversity training works. A seminal review paper revealed that diversity training had only small to moderate effects on trainees' immediate attitudes and that other potentially meaningful outcomes of diversity training were not frequently measured (Kulik & Roberson, 2008). Another review suggested that the most common approaches to diversity training might not be effective in accomplishing their goals (Bezrukova, Jehn, & Spell, 2012). These reviews are corroborated by a longitudinal analysis showing that diversity training often produces null or negative effects (Kalev, Dobbin, & Kelly, 2006). Indeed, recent research has demonstrated that diversity training methods, if not framed appropriately, can actually lead to increases in both implicit and explicit expressions of prejudice via backlash (Legault, Gutsell, & Inzlicht, 2011). Other work has also indicated that awareness

training aimed at informing people of the prevalence of stereotyping often leads to a counterproductive increase in prejudice and discrimination (Duguid & Thomas-Hunt, 2014).

Accordingly, the purpose of this dissertation is to develop and test a comprehensive model of diversity training effectiveness (see Figure 1). Specifically, this model considers socially engaging/disengaging emotional responses and internal/external motivation to respond without prejudice to be key mediators in the process by which diversity training affects diversity-related attitudes, behaviors, and cognitions. This represents the first integration of emotions into the process by which diversity training produces its desirable (or in some cases, undesirable) effects. Thus, this work will guide our understanding of the explanatory mechanisms behind diversity training effectiveness while also unveiling proximal outcomes of effective diversity training programs.

This model also considers trainee characteristics of trait empathy and social dominance orientation as moderators of diversity training effectiveness. Given that previous research findings with regard to diversity training effectiveness have been mixed, this search for moderators is of academic and practical importance. Indeed, diversity training scholars and practitioners need to have a firm understanding of contextual and individual difference variables that may alter training effectiveness. Theoretically speaking, this model will guide future empirical research in the diversity training literature by explaining for whom, how, when, and why diversity training works when it is indeed effective. Practically speaking, this model will offer guidance to practitioners regarding how to effectively leverage diversity training exercises, what

outcomes should be measured, when those outcomes should be measured, and what contextual and individual difference variables need to be in place for diversity training to be as effective as it possibly can be.

## **DIVERSITY TRAINING BACKGROUND**

Diversity training can be defined as “a distinct set of programs aimed at facilitating positive intergroup interactions, reducing prejudice and discrimination, and enhancing the skills, knowledge, and motivation of people to interact with diverse others” (Bezrukova et al., 2012, p. 208). Importantly, diversity training differs from more traditional workplace training in that it deals with subjective and emotionally-laden topics, such as one’s presumably engrained attitudes about stigmatized groups (Hanover & Cellar, 1998). Indeed, while attitudes and reaction-based outcomes are considered in more traditional training programs, cognitive outcomes and skill development tend to receive more emphasis in these programs. On the other hand, because attitudes toward outgroups and diversity more generally are likely developed prior to training, diversity trainers need to focus on more affective outcomes such as attitudes and emotions, and training sessions tend to be more emotionally and politically charged as a result (Paluck, 2006). This is likely part of the reason that diversity training can sometimes result in backlash, where individuals react against the training, producing the opposite of desired training effects (see Legault et al., 2011). Diversity trainers hope to avoid such backlash, and instead pursue goals such as compliance, harmony, and (most desirably) inclusion (Rossett & Bickham, 1994). Importantly, meeting these goals is thought to benefit not only stigmatized individuals but also non-stigmatized others and organizational entities

by improving work attitudes and social climates, increasing creativity and innovation, and reducing the negative consequences of discrimination such as employee turnover and lawsuits (Bezrukova et al., 2012; Simons, 1992). In sum, the most important objective of diversity training is for groups of diverse individuals to learn how to work together effectively, which may increase overall success for stigmatized and non-stigmatized individuals, as well as organizations as a whole (Bezrukova et al., 2012).

A very recent meta-analysis revealed that the most common forms of course instruction were lecture (21%), reading (19%), discussion (19%), videos (10%), and role-plays (10%; Nittrouer, Hebl, & Oswald, 2016). Somewhat troublingly, Bezrukova and colleagues' review revealed that 91% of diversity training studies either use multiple methods of instruction or did not specify the method used (2012). While this should not be surprising given that most research concludes that multiple methods are more effective than using a single method (e.g., a lecture), using multiple methods per study may preclude us from uncovering findings regarding which activities are most beneficial to the success of diversity training programs. Accordingly, in the sections that follow I discuss some targeted activities that have received both theoretical and empirical support in the literature.

### **Perspective Taking**

Perspective taking is an awareness-based training strategy that can be defined as actively considering the psychological experiences of someone who is meaningfully different from oneself, with an emphasis on how those experiences may differ from our own (Todd, Bodenhausen, Richeson, & Galinsky, 2011). More colloquially, perspective taking can be thought of as mentally "walking in someone else's shoes." Within a social

identity theory (Tajfel, 1986) framework, perspective taking is thought to be an effective diversity training method because it breaks down psychological barriers between in-groups and out-groups. Indeed, individuals tend to categorize themselves and others into in-groups and out-groups based on meaningful social variables such as ethnicity and gender as well as invisible identities such as differing sexual orientations and political affiliations (Hogg & Terry, 2000). Although this categorization process has the potential to improve in-group self-esteem via social comparison mechanisms (Tajfel, 1986), it also has the potential to produce in-group favoritism and bias toward the out-group that could result in prejudice, ostracism, and ultimately behavioral manifestations of discrimination (Dudley & Mulvey, 2009). Thus, perspective taking reduces prejudice by requiring individuals to think about what it would be like to be a member of a different group, which serves to break down in-group vs. out-group barriers and more generally reduces an “us vs. them” mentality in the workplace (Galinsky, Ku, & Wang, 2005).

Empirical work has indicated that taking the perspective of another person or another group of people can lead trainees to view others more positively and ultimately serve to reduce prejudice. For example, one study found that when people took the perspective of an individual from a stigmatized group, they tended to express more positive attitudes toward that group overall (Batson et al., 1997). Another study replicated this finding and also found that taking the perspective of a stigmatized individual decreased the extent to which participants used stereotypes to judge members of that group (Galinsky & Moskowitz, 2000). Overall, perspective taking has been shown to improve attitudes toward ethnic minorities (Dovidio et al., 2004), people with AIDs

(Batson et al., 1997) the elderly (Galinsky & Ku, 2004), drug addicts (Batson, Chang, Orr, & Rowland, 2002), the homeless, (Batson et al., 1997) and non-native English speakers (Madera, Neal, & Dawson, 2011). Finally, perspective taking has even been shown to improve team performance on a creative task through promoting elaboration of relevant information (as opposed to biased processing) in a recent study (Hoever et al., 2012). It follows that utilizing this method of diversity training should improve trainees' diversity-related attitudes, behaviors, and cognitions toward various stigmatized groups.

### **Goal Setting**

The next method I will discuss is a behavior-based training exercise in which participants set diversity-related goals involving a given stigmatized group. Goal setting theory posits that performance will be improved to the extent that participants set challenging and specific goals for themselves (Locke, Shaw, Saari, & Latham, 1981). In a diversity training context, goal setting theory can be incorporated by asking trainees to set high quality goals aimed at promoting diversity and reducing expressions of prejudice within an organization. Importantly, goals are thought to have their positive effect by driving motivation and guiding behavior (Locke & Latham, 1990). They are thought to achieve this through four primary mechanisms: 1) directing attention toward goal-specific behaviors, 2) energizing individuals to pursue challenging ideal states, 3) promoting persistence, and 4) causing individuals to consider and utilize various strategies for accomplishing their goals (Wood & Locke, 1990). Goals are also thought to be an effective transfer of training strategy that can enhance or at least retain the effectiveness of a training session after it has concluded (Latham, 1997). This is of particular

importance in the realm of diversity training, where training sessions are generally few and far between, and may only be required once during an employee's tenure.

Empirical work has demonstrated the effectiveness of goal setting in diversity training settings as well as more general training contexts. Specifically, goal setting has been shown to produce positive changes in leadership training (Wexley & Nemeroff, 1975) and time management training (Wexley & Baldwin, 1986). Additionally, goal setting has been shown to enhance the effectiveness of safety training, even when outcomes were measured nine months after the initial training had taken place (Reber & Wallin, 1984). Importantly, this finding indicates the potential of this strategy to produce long-lasting behavior change. The use of goal setting to promote diversity-related behaviors and attitudes is supported by a recent study in which students were asked to set goals promoting acceptance of lesbian, gay, and bisexual (LGB) individuals. Results after three months showed that students who had participated in the goal setting training exhibited more behaviors promoting the acceptance of LGB individuals. After eight months, trainees also reported more positive attitudes toward LGB individuals (Madera et al., 2013). It follows that utilizing this method of diversity training should improve trainees' diversity-related attitudes, behaviors, and cognitions toward various stigmatized groups.

*Hypothesis 1:* Diversity training exercises designed to promote socially engaging emotions (e.g., perspective taking) and/or diversity-related motivations (e.g., goal setting) will be effective in promoting pro-diversity attitudes, behaviors, and cognitions.



## **EXPLANATORY MECHANISMS OF DIVERSITY TRAINING EFFECTIVENESS**

As mentioned previously, Kraiger and colleagues' (1993) conceptualization of training learning outcomes includes not only attitudes, behaviors, and cognitions, but also emotions and motivations experienced as a result of the training. Accordingly, this paper proposes that affect (i.e., socially engaging/disengaging emotions) and motivation (i.e., internal/external motivation to respond without prejudice) are important, proximal outcomes of diversity training that may serve as important mediators when evaluating the effectiveness of training strategies. These constructs and their proposed relationships with diversity training activities and outcomes are the focus of the following sections.

### **Socially Engaging and Disengaging Emotions**

Emotions have been a startling and nearly complete omission from the diversity training literature thus far. This is somewhat surprising, given that the outcomes of diversity training fairly emotion-laden (Jackson, 1999), and given that emotions experienced during or immediately after the training may be able to explain the backlash effects that sometimes occur (e.g., Legault et al., 2011). This is also surprising given that emotions are thought to aid us in simplifying complex social situations such as interacting with diverse others. Indeed, previous research has demonstrated that individuals use the affect they are experiencing as a heuristic cue when responding to influence attempts (Forgas, 1995). Additionally, other work has shown that public vs.

private compliance varies depending on the emotional reaction one has to an influence attempt (Whatley, Webster, Smith, & Rhodes, 1999).

A useful framework for thinking about emotions as they might be relevant in diversity training comes to us from cross-cultural psychology, where researchers distinguish between socially engaging and socially disengaging emotions. Socially engaging emotions include discrete emotions such as empathy, sympathy, guilt, and shame, while socially disengaging emotions include discrete emotions such as pride, self-esteem, and frustration (Kitayama, Mesquita, & Karasawa, 2006). Importantly, this conceptualization goes beyond the valence (i.e., positive vs. negative affect) of an emotion to consider the core relational theme or appraisal surrounding this emotion (Lazarus, 1999). Indeed, emotions such as pride, friendly feelings, anger, and guilt all have meaningful themes or appraisals associated with them that go beyond simple positive or negative evaluations. These themes guide the individual in understanding their relationships with others around them (Kitayama, Karasawa, & Mesquita, 2004). For example, although pride and friendliness are both considered to be positive emotions, they are associated with very different relational themes; namely, personal achievement for pride and social harmony for friendliness. Similarly, although anger and guilt are similar in terms of their unpleasantness, they are associated with vastly different relational themes, such as goal interference and failure of repayment. Thus, experiencing anger implies that the person is appraising the situation as one that prevents goals from being achieved, whereas experiencing guilt implies that the person is appraising a

situation as one in which he/she has failed to repay a given obligation (Kitayama et al., 2006).

Independence and interdependence are two major sets of social objectives and associated ideals that are present in all cultures. The idea is that some themes, such as social harmony and failed repayment, are most likely to be experienced by the interdependent self which seeks harmonious relationships. Themes that are derived from social interdependence are referred to as socially engaging. In contrast, themes such as personal achievement and unfair infringement on personal goals are most likely to be experienced by the independent self that seeks to pursue individual goals and desires. Themes that are derived from such social independence are referred to as socially disengaging (Kitayama et al., 2006). Empirical work has supported the notion that there exists a social orientation dimension when it comes to measuring emotions. Thus, emotions that are both positive (e.g., friendliness, respect) and negative (e.g., guilt and shame) in valence have been shown to comprise the engagement end of the social orientation spectrum, while the disengagement end was defined by a different set of both positive (e.g., pride, feeling superior) and negative (e.g., anger and frustration) emotions (Kitayama, Markus, & Kurokawa, 2000). These findings suggest that people are able to categorize emotions in terms of both pleasantness and social orientation (Kitayama et al., 2006). Thus, it stands to reason that diversity initiatives may be more effective to the extent that they engender more socially orienting (i.e., engaging) emotions.

While diversity training scholars have yet to incorporate this framework into their studies, empathy is a socially engaging emotion that has received both theoretical and

empirical attention. Empathy is an “other-focused” emotion that allows one to acknowledge, understand, and show concern for how someone else is feeling (Batson et al., 1995). Thus, empathy seems to fit well into socially engaging end of the social orientation dimension of emotional experience. Importantly, empathy has been conceptualized as both a trait- and a state-level variable (Van Lange, 2008), with state empathy being my focus for now. State empathy can be defined as “an affective state that is elicited by the observation or imagination of another person’s affective state” (De Vignemont & Singer, 2006, p. 435). Thus, state empathy is an emotional reaction that could be triggered by various environmental stimuli, including diversity training exercises, while trait empathy may affect an individual’s level of receptivity to such an exercise before training begins. More recently, researchers have begun discussing empathy not as a discrete emotion, but as an “emotional process with substantial implications for moral behavior” (Tangney, Stuewig, & Mashek, 2007, p. 362). Accordingly, empathy, along with other socially engaging vs. disengaging emotions, experienced as a result of diversity training, is a key explanatory mechanism in my model of diversity training effectiveness, which has several outcomes with moral implications.

Previous empirical work has shown that diversity training can lead to an increase in state empathy (Madera et al., 2011), which in turn had a beneficial effect on diversity related attitudes. These findings make sense when interpreted in light of cognitive dissonance theory (Festinger, 1957), which states that psychological discomfort is likely to be experienced when attitudes, behaviors, and cognitions are not concordant with one another. Thus, becoming aware of the needs and experiences of diverse populations could

lead to psychological discomfort if the trainee has negative diversity-related attitudes, cognitions, or past behaviors, which should theoretically prompt them to improve these diversity-related outcomes to reduce dissonance.

*Hypothesis 2:* Socially engaging emotions are more positively associated with diversity-related attitudes, behaviors, and cognitions when compared to socially disengaging emotions.

*Hypothesis 3:* Socially engaging/disengaging emotions partially mediate the relationship between diversity training exercises and diversity-related attitudes, behaviors, and cognitions.

### **Motivation**

If the overarching goal of diversity training programs is to get people who are meaningfully different from each other to have more supportive attitudes and behaviors toward one another, a more proximal outcome might be to change motivations to have such attitudes and engage in such behaviors in the first place. Although some training scholars consider motivation to be an important input in determine training effectiveness (Colquitt, LePine, Noe, 2000), Kraiger and colleagues (1993) list motivation as an important affective learning outcome of training exercises, which maps on well with the way that diversity trainers typically think about motivational constructs. Indeed, improving individuals' motivation to successfully interact with differing others is actually listed as a goal outcome in the definition of diversity training provided by Bezrukova and colleagues (2012). Internal motivation to respond without prejudice can be defined as responding without prejudice due to one's own egalitarian beliefs and values (Plant & Devine, 1998). On the other hand, external motivation to respond without prejudice can

be defined as responding without prejudice due to external constraints such as laws and norms preventing the expression of prejudice (Plant & Devine, 1998).

Promoting external motivation to respond without prejudice has actually been shown to increase expressions of prejudice (e.g., Legault et al., 2011), and thus may not be as effective in terms of promoting diversity-related outcomes when compared to internal motivation to respond without prejudice. Such findings are in line with the idea that external motivators are seen as controlling (Deci, Koestner, & Ryan, 1999), thus providing less motivation to change. Such findings can also be explained by psychological reactance theory (Brehm, 1966), which states that when people perceive threats to their control of their own lives, they may react by trying to reassert that control. This attempt to reassert control could cause them to change attitudes and/or behaviors in the opposite direction that was originally intended by the diversity training initiative.

An individual who participates in a diversity training initiative aimed at getting them to react positively to a given stigmatized group should theoretically be motivated to respond without prejudice. Indeed, previous research has shown that participative goal setting (a behavior-based diversity training strategy) can lead to an increase in intrinsic motivation to accomplish those goals (Harackiewicz & Elliot, 1993). Thus, I would hope to extend these findings to a diversity training context. In turn, this internal motivation to respond without prejudice should improve diversity-related attitudes and behaviors by motivating people to respond to stigmatized individuals positively based on their own egalitarian beliefs. Indeed, internal motivation to respond without prejudice has been

shown to be predictive of positive diversity-related attitudes in previous research (e.g., Ratcliff, Lassiter, Markman, & Snyder, 2006).

This role of internal motivation to respond without prejudice in influencing diversity training effectiveness has received some preliminary empirical support. For instance, one study of diversity training programs among health care professionals found that the training successfully altered not only attitudes and behaviors, but also improved the motivation of the participants to take action regarding diversity after the study (Celik, Abma, Klinge, & Widdershoven, 2012). Another study showed that internal motivation to respond without prejudice partially mediated the relationship between a perspective taking diversity training activity and diversity-related attitudes and behaviors (Lindsey, King, Hebl, & Levine, 2015). I would also expect a variety of diversity training initiatives to be effective in promoting external motivation to respond without prejudice, as having a diversity initiative in the first place signals that the organization values diversity and wants its employees to respond without prejudice. However, based on previous research (Legault et al., 2011), I would not expect this external motivation to respond without prejudice to be as strongly associated with more distal diversity training outcomes such as diversity-related attitudes, behaviors, and cognitions.

*Hypothesis 4:* Internal motivation to suppress prejudice will have a more positive impact on diversity-related attitudes, behaviors, and cognitions when compared to external motivation to suppress prejudice.

*Hypothesis 5:* Internal and external motivation to respond without prejudice will partially mediate the relationship between diversity training exercises and diversity-related attitudes, behaviors, and cognitions.



## **TRAINEE CHARACTERISTICS AS MODERATORS OF DIVERSITY TRAINING EFFECTIVENESS**

Another question this paper will address is whether individual differences may alter the effectiveness of various diversity training initiatives. This search for moderators is important, given that previous studies regarding diversity training exercises have yielded mixed results, with some studies showing positive, some showing negative, and still other studies showing null effects (Kulik & Roberson, 2008). Individual differences have been identified as an important factor to consider in the general training literature. For instance, one study found that individual differences such as goal orientation and learning self-efficacy predicted training performance (Brown, 2006). Additionally, meta-analytic evidence has indicated that trainee characteristics such as conscientiousness and locus of control are important to consider for the success of training participants (Colquitt et al., 2000). Finally, considering trainee characteristics could serve as a needs analysis of sorts in the diversity training realm, helping trainers to identify not only who is in the most need of training but also which exercises may be most appropriate for specific individuals.

### **Trait Empathy**

Empathy is an “other-focused” emotion that allows one to acknowledge, understand, and show concern for how someone else is feeling (Batson et al., 1995). While I focused on state empathy previously, here I will focus on trait empathy as a

potential individual difference moderator of diversity training effectiveness. Trait empathy refers to stable and dispositional tendencies to understand and respond sympathetically to others' emotions and experiences (Knafo et al., 2008). State empathy is a socially engaging emotional reaction that could be triggered by various environmental stimuli, including the perspective taking diversity training exercise (making it a potentially proximal outcome of this exercise), while trait empathy may affect an individual's level of receptivity to such an exercise before training begins.

Indeed, trait empathy has been repeatedly and convincingly shown to negatively relate to expressions of prejudice (see Bäckström & Björklund, 2007). Thus, people low in trait empathy tend to express more prejudice when compared to those who are higher in trait empathy. In terms of the model I am justifying, it stands to reason that highly empathetic people may be relatively aware of and attuned to the needs of diverse populations. These people would not necessarily stand to benefit from a perspective taking diversity training exercise because their tendency to be aware of others' needs should lead them to respond without prejudice, even in lieu of an empathy-inducing intervention. On the other hand, individuals who are low in trait empathy may need to be prompted by diversity training to enhance understanding and awareness of the experiences of populations. Thus, I reason that individuals who are low in dispositional empathy stand to benefit the most from diversity training aimed at improving diversity-related attitudes and behaviors. Indeed, previous work has shown that taking the perspective of others can lead to an increase in *state* empathy (Madera et al., 2011), which should be more beneficial for those low in dispositional empathy than those who

are high on this trait. Additionally, recent empirical work has shown that perspective taking may be more effective for those who are low in trait empathy when compared with those who are high on this variable (Lindsey et al., 2015). Indeed, while I think this proposition makes quite a bit of intuitive sense regarding perspective taking, I will attempt to replicate this finding while exploring whether this moderated relationship may also extend to other diversity training exercises.

*Hypothesis 6:* Trainee trait empathy will moderate the effectiveness of diversity training programs, such that training will be more beneficial for those lower in empathy when compared to those higher in empathy.

*Hypothesis 7:* The proposed moderation in Hypothesis 6 will function indirectly through emotions and motivations.

### **Social Dominance Orientation**

Social dominance theory (Sidanius, 1993; Sidanius & Pratto, 1999) is grounded in the notion that societies are typically organized in group-based social hierarchies. This theory points us to another individual difference trainee characteristic that likely influences the effectiveness of diversity training initiatives. Specifically, this theory suggests that intergroup conflict represents a manifestation of group-based hierarchies. Group-based beliefs (such as ideologies involving meritocracies and group dominance) legitimize prejudiced attitudes and discriminatory treatment, serving to perpetuate social inequalities over time. This theory also states that individuals vary in the degree to which they endorse hierarchical ideologies. Indeed, social dominance orientation (SDO) is defined as “a general attitudinal orientation toward intergroup relations, reflecting

whether one generally prefers such relations to be equal, versus hierarchical” (Pratto et al., 1994, p. 742).

SDO has been shown to be negatively related to other variables presumably important to consider in diversity training such as empathy, tolerance, and altruism (Pratto et al., 1994). Additionally, this individual difference has also been shown to be distinguishable from related variables such as conservatism and authoritarianism (Pratto et al., 1994). Perhaps most importantly, SDO is associated with attitudes and behaviors regarding workplace diversity. For example, one study showed that White applicants who were high in SDO viewed diverse organizations as less attractive when compared to those who were low in SDO (Umphress, Smith-Crowe, Brief, Dietz, & Watkins, 2007). Additionally, another study showed that individuals who were higher in SDO expressed more negative attitudes toward low status group members based on race and gender when compared to individuals lower in SDO (Umphress, Simmons, Boswell, & Triana, 2008). These findings serve to demonstrate that SDO is inversely associated with positive diversity-related attitudes, and lead me to reason that trainees who are lower in SDO may be more responsive to diversity training initiatives when compared to those who are higher in SDO. As mentioned previously, high SDO individuals prefer social hierarchies and use group-based beliefs to legitimize prejudice and discrimination toward outgroups. Thus, a diversity training exercise may serve to increase the salience of a high social dominance orientation, which may result in null (or even negative) effects on diversity training outcomes. Indeed, it stands to reason the individuals high in SDO may be more likely to respond to diversity training initiative with socially disengaging (as opposed to

engaging) emotions, and at best an external (as opposed to an internal) motivation to respond without prejudice, thus hindering the effectiveness of the training overall.

*Hypothesis 8:* Trainee social dominance orientation will moderate the effectiveness of diversity training programs, such that training will be more effective for those lower in SDO when compared to those higher in SDO.

*Hypothesis 9:* The proposed moderation in Hypothesis 8 will function indirectly through emotions and motivations.

## **STUDY 1 - METHOD**

### **Participants**

The original sample consisted of 246 employees working at least 30 hours per week and was recruited via Amazon's Mechanical Turk. The sample was 62% male, 35% White, 52% Asian, 6% Black, 3% Hispanic, and 4% were of another ethnicity. The sample had an average age of 33 years old and an average tenure of 7 years with their organization. Of this original sample, 147 participants completed the second time point, for a retention rate of 60%. This sample that completed the study was very similar demographically to the original sample. Indeed, this sample was 64% male, 37% White, 52% Asian, 3% Black, 3% Hispanic, and 5% were of another ethnicity. This sample had an average age of 33 years old and an average tenure of 7 years at their organization. I conducted a logistic regression analysis to examine whether any of the time 1 variables could predict whether a participant completed the study or not. This analysis yielded no significant results (all  $ps > .20$ ). Several participants needed to be removed from the dataset due to failing an attention check (i.e., failing to respond "strongly disagree" when instructed to do so) or failing to respond to the diversity training activity as instructed. Compensation was provided in the form of \$0.25 for each completed time point.

### **Procedure**

This study involved two time points. First, all participants participated in a short diversity training activity. Specifically, trainees were randomly assigned to a training

condition: perspective taking, reflection, goal setting, or a control condition. At the conclusion of this training exercise, I administered the measures of socially engaging/disengaging emotions in addition to measures of diversity-related motivations. All participants were then contacted a few days later to fill out a follow-up online survey that contained measures of diversity-related attitudes, behaviors, and cognitions.

### **Materials**

*Diversity Training Method.* The diversity training that was conducted as a part of this study varied between subjects as a function of the type of diversity training exercise (perspective taking vs. reflection vs. goal setting vs. control) that was received. Those participating in the goal setting diversity training were asked to personally set specific, challenging, and attainable goals related to diversity. For instance, a participant might opt to make a goal to challenge jokes about marginalized groups when they heard them in the future. Those participating in the perspective taking diversity training were asked to consider the challenges faced by marginalized groups. With these challenges in mind, these participants were then asked to write a short narrative about what a typical day would be like for a member of a marginalized group to gain a better understanding of the challenges they face. Participants in the reflection condition were asked to reflect on a time when they witnessed prejudicial behavior at work. With this memory in mind, participants were then asked to write a few sentences about what happened, how they responded, and what they wished they would have done differently in the situation. Finally, participants in the control condition were simply asked to write about their day prior to participating in the study. For the sake of consistency, each exercise asked participants to write four to five sentences in order to complete the activity.

***Attitude Measure.*** To measure diversity-related attitudes, I utilized an adapted version of a 10-item scale developed by Stanley (1997). This scale was designed to capture self-reported attitudes toward pluralism and diversity in the workplace and educational environments (sample item: “Each minority culture has something positive to contribute to American society”;  $\alpha = .94$ ). This scale utilized a Likert response scale ranging from 1 (strongly disagree) to 7 (strongly agree).

***Behavioral Measure.*** To measure diversity-related behaviors, I utilized a 10-item scale developed by Linnehan, Chrobot-Mason, and Konrad (2006). This scale was designed to capture self-reported likelihood of engaging in supportive behaviors toward diverse populations (sample item: “Point out if others use language that may be offensive to members of certain demographic groups”;  $\alpha = .93$ ). This measure utilizes Likert scales ranging from 1 (very unlikely) to 7 (very likely). Importantly, participants were asked to rate the likelihood that they would engage in these pro-diversity behaviors at work over the next month.

***Cognitive Measure.*** To measure diversity-related cognitions, I utilized an adapted 8-item scale originally developed by Joy-Gaba and Nosek (2010). The scale was developed to measure individuals’ beliefs about bias, specifically whether they think that unconscious biases can influence their decision-making (sample item: “Everyone, including me, has biases toward other people”;  $\alpha = .88$ ). This scale utilizes a Likert response scale ranging from 1 (strongly disagree) to 7 (strongly agree).

***Socially Engaging/Disengaging Emotions.*** To measure socially engaging and disengaging emotions, I used an adapted version of the Positive and Negative Affect



Schedule (PANAS; Watson, Clark, & Tellegen, 1988). This measure asks respondents to report on the degree to which they are experiencing a variety of affective states on a Likert scale ranging from 1 (very slightly or not at all) to 5 (extremely). The scale was adapted to ensure that it included all relevant socially engaging (e.g., empathy, sympathy, guilt, shame) and socially disengaging (e.g., anger, frustration, pride, superiority) emotions. Participants were asked to report the degree to which they were experiencing various affective states as a result of the diversity training exercise they just completed. For analysis purposes, these emotions were separated into indicators of socially engaging positive emotions (empathy and sympathy;  $\alpha = .85$ ), socially engaging negative emotions (guilt and shame;  $\alpha = .82$ ), socially disengaging positive emotions (pride and superiority;  $\alpha = .77$ ), and socially disengaging negative emotions (anger and frustration;  $\alpha = .81$ ).

To justify this decision, I conducted confirmatory factor analyses (CFAs) using MPlus. Specifically, I tested the aforementioned four-factor model and found that it demonstrated better fit ( $\chi^2(14) = 14.04, p = .45, CFI = 1.00, RMSEA = 0.003, SRMR = .03$ ) when compared with a two-factor model that only accounted for the valence of the emotions ( $\chi^2(19) = 150.47, p < 0.01, CFI = 0.84, RMSEA = 0.17, SRMR = .09$ ) and a two-factor model that only accounted for the social engagement level of the emotions ( $\chi^2(19) = 312.23, p < 0.01, CFI = 0.64, RMSEA = 0.25, SRMR = .16$ ).

***Motivation Measures.*** To measure motivation to respond without prejudice toward diverse groups, I used an adapted version of a 10-item scale developed by Plant and Devine (1998). One 5-item subscale on this measure was designed to capture self-reported internal motivation to respond without prejudice toward stigmatized populations

(sample item: “I attempt to act in non-prejudiced ways toward minorities because it is personally important to me”;  $\alpha = .87$ ). Another 5-item subscale on this measure was designed to capture self-reported external motivation to respond without prejudice toward stigmatized populations (sample item: “I try to hide any negative thoughts about minorities in order to avoid negative reactions from others”;  $\alpha = .86$ ). Both of these subscales utilize Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree).

***Trait Empathy.*** To measure trait empathy I used an adapted 5-item scale from the International Personality Item Pool (Goldberg et al., 2006). This scale was designed to capture dispositional empathy (sample item: “I am concerned about others”;  $\alpha = .74$ ). This measure utilizes a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

***Social Dominance Orientation.*** Social dominance orientation was measured using an adapted 8-item scale developed by Pratto and colleagues (1994). We utilized a Likert response scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item from this scale is “Sometimes other groups must be kept in their place” ( $\alpha = .96$ ).

## STUDY 1 - RESULTS

### Main Effects

Hypothesis 1 predicted that diversity training exercises (perspective taking, goal setting, and reflection) would be more effective when compared to the control condition. To test this hypothesis, I conducted an omnibus ANOVA with experimental condition as the independent variable and diversity-related emotions, motivations, attitudes, behaviors, and cognitions as the dependent variables. This analysis revealed that experimental condition had a significant effect on socially engaging negative emotions ( $F(3, 244) = 4.23, p < .01$ ) and socially disengaging negative emotions ( $F(3, 244) = 6.58, p < .01$ ). Counter to expectations, training condition did not have a significant effect on external or internal motivation to respond without prejudice, socially engaging positive emotions, socially disengaging positive emotions, or diversity-related attitudes, behaviors, or cognitions (all  $ps > .05$ ).

I conducted post-hoc tests for all significant results using the Bonferroni correction for alpha inflation. Results revealed that reflection ( $M = 2.15, SD = 1.13$ ) led to higher levels of socially engaging negative emotions when compared to perspective taking ( $M = 1.67, SD = 1.08; p = .05$ ) and the control condition ( $M = 1.58, SD = 1.09; p < .01$ ). Results also revealed that reflection ( $M = 2.41, SD = 1.27$ ) led to higher levels of socially disengaging negative emotions when compared to perspective taking ( $M = 1.81,$

$SD = 1.13$ ), goal setting ( $M = 1.72$ ,  $SD = .90$ ), and the control condition ( $M = 1.80$ ,  $SD = 1.08$ ,  $ps < .05$ ). Collectively, these results do not support Hypothesis 1.

Hypothesis 2 predicted that socially engaging emotions would be more positively related to diversity-related attitudes, behaviors, and cognitions when compared to socially disengaging emotions. By examining the correlation matrix in Table 1, one can see that socially engaging positive emotions have an insignificant positive relationship with diversity-related attitudes ( $r = .07$ ,  $p = .39$ ) and cognitions ( $r = .09$ ,  $p = .28$ ), and a stronger relationship with diversity-related behaviors ( $r = .24$ ,  $p < .01$ ). It can also be seen that socially engaging negative emotions do not follow a similar pattern with regard to attitudes ( $r = -.17$ ,  $p < .05$ ), behaviors ( $r = .02$ ,  $p = .79$ ), or cognitions ( $r = .24$ ,  $p < .01$ ). Turning our attention to socially disengaging positive emotions, it can be seen that these emotions significantly relate to diversity-related behaviors ( $r = .26$ ,  $p < .01$ ), but do not significantly relate to attitudes ( $r = .02$ ,  $p = .86$ ) or cognitions ( $r = -.04$ ,  $p = .64$ ). Finally, it can be seen that socially disengaging negative emotions have significant relationships with diversity-related attitudes ( $r = -.29$ ,  $p < .01$ ) and cognitions ( $r = .24$ ,  $p < .01$ ), but are not significantly related to behaviors ( $r = -.03$ ,  $p = .71$ ). Collectively, these results do not support Hypothesis 2.

Hypothesis 4 predicted that internal motivation to respond without prejudice would be more positively related to diversity-related attitudes, behaviors, and cognitions when compared to external motivation to respond without prejudice. By examining the correlation matrix in Table 1, one can see that internal motivation to respond without prejudice has strong positive relationships with both diversity-related attitudes ( $r = .61$ ,  $p$

< .01) and behaviors ( $r = .51, p < .01$ ), but an insignificant relationship with diversity-related cognitions ( $r = -.12, p = .16$ ). On the other hand, external motivation to respond without prejudice has an insignificant relationship with diversity-related attitudes ( $r = .04, p = .63$ ) and behaviors ( $r = .14, p = .10$ ), and a stronger relationship with diversity-related cognitions ( $r = .34, p < .01$ ). Collectively, these results provide strong support for Hypothesis 4 regarding attitudinal and behavioral outcomes, but no support for this hypothesis regarding the cognitive outcome.

### **Indirect Effects**

One reason I may have failed to detect more main effects of training on distal outcomes of diversity training is that some of these effects may function indirectly. Indeed, Hypothesis 3 predicted that socially engaging/disengaging emotions would mediate the relationship between training and distal outcomes, while Hypothesis 5 predicted that internal/external motivation to respond without prejudice would mediate this same relationship. To test these hypotheses, I used regression-based path analysis, regressing each endogenous variable onto its direct determinants. Specifically, to test these mediation hypotheses I used macros developed by Hayes (2013) designed for testing complex mediation models using regression analysis and bootstrapping techniques. Distal training outcomes of attitudes, behaviors, and cognitions were regressed onto the mediators (emotions and motivations) simultaneously, which were in turn regressed onto three dummy-coded variables reflecting experimental condition (with the control condition being the uncoded group).

The results of these analyses are presented in Table 2 (for the attitude outcome) and Table 3 (for the behavioral outcome). Note that I present no results for the cognitive

outcome as all results were insignificant. As you can see in Table 2, the model predicting attitudes revealed a significant indirect effect of the reflection activity through socially disengaging negative emotions (coefficient = -0.13, 95% CI = -0.33 to -0.02) and internal motivation to respond without prejudice (coefficient = 0.21, 95% CI = 0.03 to 0.41). As expected, reflection led to marginally higher levels of internal motivation ( $b = .45, p = .06$ ), which in turn led to more positive diversity-related attitudes ( $b = .46, p < .01$ ). Counter to expectations, reflection also led to higher levels of socially disengaging negative emotions ( $b = .46, p < .05$ ), which in turn led to more negative diversity-related attitudes ( $b = -.28, p < .01$ ).

As you can see in Table 3, the model predicting behaviors revealed a significant indirect effect of the reflection activity through internal motivation to respond without prejudice (coefficient = 0.21, 95% CI = 0.03 to 0.45). As predicted, reflection led to marginally higher levels of internal motivation ( $b = .45, p = .06$ ), which in turn led to more positive diversity-related behaviors ( $b = .47, p < .01$ ). Collectively, these results provide some support for Hypothesis 3 and Hypothesis 5 with regard to the reflection training activity, and no support for these hypotheses regarding the perspective taking and goal setting training activities.

### **Conditional Effects**

Another reason I may have failed to detect more indirect effects of training on distal outcomes of diversity training is that some of these effects may be conditional upon individual difference moderators. Indeed, hypotheses 6 and 7 propose that the indirect effect of training may vary depending on participant trait empathy, while hypotheses 8 and 9 propose that the same indirect effects may vary depending on participant social

dominance orientation. To test these hypotheses, I used the same macros and models that I use to test hypotheses 3 and 5 above, only this time I added in trainee trait empathy and trainee social dominance orientation as first stage moderators (Edwards & Lambert, 2007). Importantly, these macros allow for the calculation of the index of moderated mediation, which is essentially equivalent to bootstrapping the difference between two conditional indirect effects. If the confidence interval for this index excludes zero, one can conclude evidence of moderated mediation (Hayes, 2015).

These moderated mediation results for hypotheses 6 and 7 can be found in Table 4 for the attitude outcome. Note that I present no results regarding these hypotheses for the cognitive or behavioral outcomes as all results were insignificant. As you can see in Table 4, the indirect effect of goal setting on attitudes through socially disengaging negative emotions varies significantly across levels of trait empathy (index = 0.11, 95% CI = 0.02 to 0.28). Probing this finding further, results revealed a marginally significant interaction between goal setting and trait empathy in predicting socially disengaging negative emotions ( $p = -.39$ ,  $p = .07$ ). See Figure 2 for a plot of this interaction. Counter to expectations, goal setting and trait empathy interacted such that goal setting was more beneficial in terms of reducing socially disengaging negative emotions experienced for those high in trait empathy compared with those who were low, which in turn had a negative impact on diversity-related attitudes ( $b = -.28$ ,  $p < .01$ ). This result provides very weak support for hypotheses 6 and 7 with regard to attitudinal outcome and goal setting diversity training activity, but no support for these hypotheses regarding cognitive and behavioral outcomes, or the perspective taking or reflection diversity training activities.

Moderated mediation results for hypotheses 8 and 9 can be found in tables 5 (for the attitude outcome), 6 (for the behavioral outcome), and 7 (for the cognitive outcome). As you can see in Table 5, the indirect effect between reflection and attitudes through internal motivation varied significantly across levels of social dominance orientation (index = 0.13, 95% CI = 0.04 to 0.25). Similarly, Table 6 shows that the indirect effect between reflection and behaviors through internal motivation varied significantly across levels of social dominance orientation (index = 0.14, 95% CI = 0.04 to 0.28). Additionally, Table 7 shows that the indirect effect between reflection and behaviors through internal motivation varied significantly across levels of social dominance orientation (index = -.04, 95% CI = -.15 to -.001). Probing these findings further, results revealed a significant interaction between reflection and social dominance orientation in predicting internal motivation ( $b = .28, p < .05$ ). See Figure 3 for a plot of this interaction. Counter to expectations, reflection and social dominance orientation interacted such that reflection promoted higher levels of internal motivation for those who were high in social dominance orientation when compared to those who were low on this variable, which in turn promoted more positive diversity-related attitudes ( $b = .46, p < .01$ ) and behaviors ( $b = .47, p < .01$ ), but less positive pro-diversity cognitions ( $b = -.15, p < .05$ ).

Table 6 further shows that the indirect effect of reflection on behaviors through socially disengaging positive emotions varied significantly across levels of social dominance orientation (index = 0.07, 95% CI = 0.01 to 0.16). Probing this finding further, results revealed a significant interaction between reflection and social dominance



orientation in predicting socially disengaging positive emotions ( $b = .25, p < .05$ ). See Figure 4 for a plot of this interaction. Counter to expectations, reflection and social dominance orientation interacted such that reflection produced higher levels of socially disengaging positive emotions for those who were high on social dominance orientation compared to those who were low, which in turn had an unexpected positive effect on diversity-related behaviors ( $b = .27, p < .01$ ). Collectively, these results provide some support for hypotheses 8 and 9.

## **STUDY 1 – DISCUSSION**

This study presents results of an online experiment assessing the effectiveness of various diversity training activities at two points in time, the proximal mediators and distal outcomes that are affected, and the individual difference trainee characteristics of the people being trained as moderators of these effects. Overall, the results provide partial support for my theoretical model and suggest that various diversity training activities can be effective via increasing motivation and promoting the appropriate emotional response in carefully framed and designed exercises that appeal to particular types of people. A notable shortcoming of this experiment is that the training activities were not presented with a more involved training seminar in a live organization. Another limitation of this study is that I did not assess the distal outcomes of diversity training at Time 1, which would have allowed me to track how these variables change over time in response to training. Thus, I am in the process of conducting a second study, this time in the field, to address these limitations.

## STUDY 2 - METHOD

### Participants

The original sample consisted of 93 office workers at a global research, technology, and consulting firm. The sample was 80% female, 87% White, had an average age of 31 years old and an average tenure of 3.7 years with the organization. The sample that also completed the second time point consisted of 40 office workers for a retention rate of 43%. This sample was 83% female, 85% White, had an average age of 30 years old and an average tenure of 4.3 years with the organization. I conducted a logistic regression analysis to examine whether any of the time 1 variables could predict whether a participant completed the study or not. This analysis yielded no significant results (all  $ps > .13$ ). No compensation was provided for participation in this study.

### Procedure

This study involved four time points. First, all trainees completed an online pre-training survey, which included measures of trait empathy ( $\alpha = .84$ ), social dominance orientation ( $\alpha = .89$ ), diversity-related attitudes and behaviors, and demographic information. Second, all participants participated in a diversity training course that lasted approximately 90 minutes. At the end of this training session, trainees were randomly assigned to one of three diversity training activity conditions: perspective taking, reflection, or goal setting. At the conclusion of this training, I administered the measures of socially engaging/disengaging emotions in addition to measures of diversity-related

attitudes ( $\alpha = .83$ ), behaviors ( $\alpha = .85$ ), cognitions ( $\alpha = .71$ ), and internal ( $\alpha = .71$ ) and external ( $\alpha = .91$ ) motivation. Third, all participants were contacted two weeks after the training took place to fill out a follow-up online survey that contained measures of diversity-related motivations, attitudes, behaviors, and cognitions. Finally, a fourth survey that was identical to the third was sent out two weeks later as a final follow-up. Note that all measures and manipulations were identical to those in Study 1, with two exceptions. First, there is no control condition in this study. Second, I will use single-item indicators for socially engaging positive (i.e., empathy), socially engaging negative (i.e., guilt), socially disengaging positive (i.e., pride), and socially disengaging negative (i.e., anger) emotions, respectively. Also note that time points 3 and 4 will be excluded from results presented below as the sample sizes for these time points are, for the moment, prohibitively low ( $Ns < 28$ ).

## STUDY 2 - RESULTS

### Main Effects

To test for differences in the main effects of training condition, I conducted an omnibus ANOVA with experimental condition as the independent variable and diversity-related emotions, motivations, attitudes, behaviors, and cognitions as the dependent variables. This analysis revealed that experimental condition only had a significant effect on pro-diversity cognitions ( $F(3, 70) = 3.66, p = .05$ ; all other  $ps > .10$ ). I conducted a post-hoc test to probe this finding further using the Bonferroni correction for alpha inflation. This analysis revealed that goal setting ( $M = 5.59, SD = 0.59$ ) yielded significantly higher levels of pro-diversity cognitions when compared to reflection ( $M = 5.08, SD = 0.75; p = .05$ ).

Hypothesis 2 predicted that socially engaging emotions would be more positively related to diversity-related attitudes, behaviors, and cognitions when compared to socially disengaging emotions. Correlational analyses revealed that empathy had a moderately positive relationship with diversity-related attitudes ( $r = .27, p < .05$ ) and behaviors ( $r = .34, p < .01$ ), and an insignificant relationship with cognitions ( $r = .02, p = .84$ ). This analysis further revealed that guilt had insignificant relationships with attitudes ( $r = -.09, p = .45$ ), behaviors ( $r = -.01, p = .89$ ) and cognitions ( $r = .08, p = .52$ ). Turning our attention to pride, results revealed that this emotion had an insignificant relationship with attitudes ( $r = -.04, p = .75$ ) and cognitions ( $r = -.12, p = .30$ ), but a significant positive

relationship with behaviors ( $r = .26, p < .05$ ). Finally, this analysis revealed that anger had insignificant relationships with diversity-related attitudes ( $r = -.01, p = .95$ ), behaviors ( $r = .05, p = .67$ ), and cognitions ( $r = -.02, p = .85$ ). Collectively, these results provide some weak support Hypothesis 2.

Hypothesis 4 predicted that internal motivation to respond without prejudice would be more positively related to diversity-related attitudes, behaviors, and cognitions when compared to external motivation to respond without prejudice. Correlational analyses revealed that internal motivation to respond without prejudice had a moderately positive relationship with pro-diversity attitudes ( $r = .39, p < .01$ ) and behaviors ( $r = .30, p < .01$ ), but an insignificant relationship with diversity-related cognitions ( $r = .12, p = .33$ ). On the other hand, external motivation to respond without prejudice has an insignificant relationship with diversity-related attitudes ( $r = -.13, p = .29$ ), behaviors ( $r = -.16, p = .18$ ), and cognitions ( $r = .12, p = .31$ ). Collectively, these results provide strong support for Hypothesis 4 regarding attitudinal and behavioral outcomes, but no support for this hypothesis regarding the cognitive outcome.

### **Indirect Effects**

One reason I may have failed to detect more main effects of training on distal outcomes of diversity training is that some of these effects may function indirectly. Indeed, Hypothesis 3 predicted that socially engaging/disengaging emotions would mediate the relationship between training and distal outcomes, while Hypothesis 5 predicted that internal/external motivation to respond without prejudice would mediate this same relationship. To test these hypotheses, I used regression-based path analysis, regressing each endogenous variable onto its direct determinants. Specifically, to test

these mediation hypotheses I used macros developed by Hayes (2013) designed for testing complex mediation models using regression analysis and bootstrapping techniques. Distal training outcomes of attitudes, behaviors, and cognitions were regressed onto the mediators (emotions and motivations) simultaneously, which were in turn regressed onto three dummy-coded variables reflecting experimental condition. Note that separate models were run for each training condition to reflect all possible comparisons.

These analyses revealed that perspective taking had a significant indirect effect on attitudes through internal motivation (coefficient =  $-.08$ , 95% CI =  $-.21$  to  $-.01$ ). Probing this finding further, results revealed that perspective taking had a marginally significant negative impact on internal motivation ( $b = -.27$ ,  $p = .07$ ), which in turn had a positive relationship with diversity-related attitudes ( $b = .29$ ,  $p < .01$ ). These analyses further revealed that reflection had a significant effect on attitudes through empathy (coefficient =  $-.05$ , 95% CI =  $-.20$  to  $-.001$ ). Probing this finding further, results revealed that reflection had a significantly negative impact on empathy ( $b = -.40$ ,  $p = .05$ ), which in turn had a marginally significant positive impact on attitudes ( $b = .12$ ,  $p = .06$ ). Finally, these results revealed that goal setting had a significant effect on attitudes through empathy (coefficient =  $.05$ , 95% CI =  $.01$  to  $.17$ ). Probing this finding further, results revealed that goal setting had a marginally significant positive impact on empathy ( $b = .39$ ,  $p = .09$ ), which in turn had a positive impact on attitudes ( $b = .14$ ,  $p < .05$ ). All other indirect effects analyzed were insignificant. Collectively, these results provide very weak support for hypotheses 3 and 5.

### **Conditional Effects**

Another reason I may have failed to detect more indirect effects of training on distal outcomes of diversity training is that some of these effects may be conditional upon individual difference moderators. Indeed, hypotheses 6 and 7 propose that the indirect effect of training may vary depending on participant trait empathy, while hypotheses 8 and 9 propose that the same indirect effects may vary depending on participant social dominance orientation. To test these hypotheses, I used the same macros and models that I use to test hypotheses 3 and 5 above, only this time I added in trainee trait empathy and trainee social dominance orientation as first stage moderators (Edwards & Lambert, 2007). Importantly, these macros allow for the calculation of the index of moderated mediation, which is essentially equivalent to bootstrapping the difference between two conditional indirect effects. If the confidence interval for this index excludes zero, one can conclude evidence of moderated mediation (Hayes, 2015). Results from these analyses revealed that the indirect effects of training activities on distal training outcomes via emotions and motivations did not significantly vary across levels of trait empathy or social dominance orientation, thus providing no support for hypotheses 6, 7, 8, or 9.



## **STUDY 2 – DISCUSSION**

This study presents preliminary results of a longitudinal field experiment assessing the effectiveness of various diversity training activities, the proximal mediators and distal outcomes that are affected, and the individual difference trainee characteristics of the people being trained as moderators of these effects. Overall, the results provide some weak support for my theoretical model by suggesting that emotions and motivations can indeed serve as explanatory mechanisms for diversity training effects. However, these results provide no support for the trainee characteristics piece of my model, which proposes that trait empathy and social dominance orientation will alter the effectiveness of diversity training exercises. An obvious shortcoming of this experiment is the lack of statistical power and low sample size with which to test my theoretical model. Thus, while I am in the process of collecting additional data for this study, my general discussion below will focus on the theoretical and practical implications of Study 1, in addition to discussing the limitations of and future research directions provided by this work.

## GENERAL DISCUSSION

### **Theoretical Implications**

My first hypothesis received very little support in that diversity training exercise did not have significant and anticipated effects on distal outcomes of diversity-related attitudes, behaviors, and cognitions. Notably, when main effects were observed, they tended to be on the more proximal mediators of emotional and motivational reactions to training exercises. Some of these effects transmitted the effectiveness of the reflection activity indirectly onto distal outcomes, while others only transmitted these indirect effects conditionally when accounting for the training activity utilized and the levels of social dominance orientation or trait empathy of participants. These findings provide some support for my theoretical model in that emotions and motivations can serve as proximal mediators and explanatory mechanisms for the effectiveness of diversity training exercises, especially the reflection activity in this case. These findings also support the notion that some outcomes (i.e., emotions and motivations) of diversity training exercises may be impacted immediately after training occurs, while others might require a time lag and more detailed process analysis before effects will be observed. More broadly, these findings indicate that the role of time may need to be more explicitly included and stipulated in models of diversity training effectiveness.

If one training activity set itself apart from the others in this study in terms of producing main and indirect effects, it was the reflection activity, which asked

participants to reflect on a diversity-related incident at work in which they wish they would have responded differently than they actually did. Indeed, this activity produced more main and indirect effects when compared to the other activities, but these effects were not always beneficial. For instance, in Study 1, while this activity had a beneficial effect on diversity-related attitudes, behaviors, and cognitions through its promotion of motivation to respond without prejudice, it simultaneously had a detrimental impact on diversity-related attitudes through its promotion of socially disengaging negative emotions (i.e., anger and frustration). While these findings provide support for my theoretical model in that motivation to respond without prejudice served as an explanatory mechanism for the effectiveness of this activity, it is notable that socially engaging negative emotions (i.e., guilt and shame) did not mediate these same relationships, especially considering that reflection led to higher levels of these emotions when compared to the other activities, as it was designed to. Indeed, a relatively recent review concluded that a variety of guilt-inducing approaches (e.g., the walking through white privilege exercise, the blue-eyed/brown-eyed exercise) were among the most successful activities to use in diversity training programs (Pendry, Driscoll, & Field, 2007), but my findings suggest that guilt may not be the mechanism that can account for their effectiveness. Rather, my results suggest that such activities could engender an anger reaction, which could help to explain the backlash effect that has been observed in previous studies (e.g., Legault et al., 2011), which diversity trainers seek to avoid.

My results also indicate that the reflection activity may be an effective way to reach people who are likely to be particularly resistant to diversity training exercises.

Indeed, moderated mediation results from Study 1 revealed that reflection was effective in promoting internal motivation to respond without prejudice for trainees who were high in social dominance orientation, which in turn had beneficial effects on diversity-related attitudes and behaviors. These findings support my theoretical model in that the trainee characteristic of social dominance orientation served to moderate trainees' motivational reactions to diversity training exercises. Given recent research showing that individuals who are high in social dominance orientation may be individuals who are in most need of training but may also be most resistant to it (e.g., Memebre, King, Kravitz, & Lindsey, 2016; Sabat et al., 2016), these are important findings to consider for diversity training scholars and practitioners.

. The reflection activity also promoted the experience of socially disengaging positive emotions (i.e., pride and superiority) for individuals who were high in social dominance orientation in Study 1, which in turn had an unexpected beneficial effect on diversity-related behaviors. This finding was not predicted by my theoretical model, and indicates that scholars may need to more carefully consider both the social engagement and valence of various emotions (rather than just considering where an emotion falls on one continuum or the other) when making predictions regarding how they might affect distal outcomes and indicators of diversity training effectiveness.

The moderated mediation results surrounding the goal setting activity paint a similar picture in that you might need to be a specific type of individual to reap the potential benefits of this exercise. Indeed, counter to expectations, Study 1 results revealed that goal setting had a more beneficial effect on diversity-related attitudes via

reducing experiences of socially disengaging negative emotions (i.e., anger and frustration) for those who were high on trait empathy as opposed to those who were low on this variable. Although I initially theorized that these activities would be more beneficial for those who were low in trait empathy by prompting them to think about the psychological states of others, it may be the case that individuals who are higher in trait empathy are simply more effective at setting appropriate and attainable diversity-related goals, unlocking the prejudice-reducing potential of this activity. However, future research should seek to replicate and extend these findings, as they run in direct contrast to recent research showing that a diversity training activity was more beneficial in terms of its effects on motivation, attitudinal, and behavioral outcomes for those who were low on trait empathy when compared with those who had a higher standing on this variable (Lindsey et al., 2015). Indeed, I will be paying close attention as to whether or not this finding is replicated once Study 2 data collection is completed.

### **Practical Implications**

My findings also present a number of practical implications for researchers and practitioners to consider. First, the finding that diversity training activities almost exclusively produced main effects on the proximal mediators supports the notion that some outcomes (i.e., emotions and motivations) of diversity training can be measured immediately after training occurs, while others might require a time lag before effects will be observed. Thus, scholars and practitioners may want allow for a sufficient time lag before measuring distal outcomes such as diversity-related attitudes, behaviors, and cognitions. Second, diversity trainers could measure emotional and motivational reactions to a training activity immediately after it has concluded to gain a preliminary

sense of if their activity is producing the intended reaction and, if not, take corrective action. Third, given my Study 1 findings regarding trainee characteristics, diversity training practitioners may want to consider measuring individual differences like trait empathy and social dominance orientation before selecting the training activity that is most likely to be beneficial for a given group of trainees. Fourth and finally, given that reflection had both beneficial and counterproductive effects, trainers utilizing this activity will want to make sure to explore ways to emphasize the motivational aspect of this exercise, while encouraging participants not to be frustrated or angry at how they have acted in the past.

### **Future Directions**

This paper provides a variety of avenues for future research directions. First, future research could examine whether the target of a given emotion alters how the emotion affects more distal outcomes. For example, if a trainee is angry at systemic issues that give rise to prejudice and discrimination, perhaps that anger could be channeled into pro-social change, whereas if a trainee is angry at the training exercise itself or angry at how they responded to a given training exercise, that anger could be detrimental to the goals of diversity training. Second, although in this paper I have been focused on examining individual differences in trainees' emotional and motivational reactions to training (i.e., first-stage moderated mediation; Edwards & Lambert, 2007), it would be interesting for future research to examine whether these individual differences also moderate the effect that experiencing a given emotion has on distal outcomes of diversity training (i.e., second-stage moderated mediation). Indeed, it may be the case that experiencing feelings of pride and superiority is more beneficial for those who are

high in social dominance orientation, while experiencing emotions like empathy and sympathy may be more beneficial for those who are higher on trait empathy.

Future research should also investigate other potentially relevant individual difference characteristics and how they might affect the relative effectiveness of various diversity training activities. Indeed, Bezrukova and colleagues' (2012) seminal review of diversity training programs revealed that only 22 studies had examined trainee characteristics and how they affect diversity training programs, with 17 of those studies limiting their examination of individual differences to demographic characteristics. Thus, with only five studies (and perhaps a few more in recent years) examining how substantive trainee characteristics might moderate the effectiveness of training exercises, this seems like a fruitful area for future research. For example, researchers could begin to address and understand how a participants' standing on the Big Five personality traits might alter how they respond to various diversity initiatives in the workplace.

Future research could also investigate the effectiveness of pairing the diversity training activities studied here with one another, rather than examining them independently. This may be especially important given the different mechanisms by which some of these activities achieved their effects on distal outcomes of diversity training. For instance, while reflection produced beneficial effects by promoting an internal motivation to respond without prejudice, it also produced detrimental effects by promoting feelings of anger and frustration. On the other hand, goal setting produced beneficial effects for those that were high in trait empathy by reducing feelings of anger and frustration. Thus, it may be the case that pairing these activities could be an effective

way to reap the benefits of both, while avoiding the negative outcomes promoted by the reflection activity.

Finally, future research should more explicitly consider whether training is the appropriate label and framework for various diversity initiatives. Indeed, as I detailed in the introduction, the goals and processes of diversity training are usually very different from those of more standard skill-based training. Still, diversity scholars feel the need to mold their ideas and approaches to the extant training literature, although similar tactics and strategies may prove ineffective within the domain of diversity and inclusion. An overarching theoretical model of diversity training effectiveness could prove invaluable to accomplishing this distinction in the literature.

### **Limitations**

While this study has a number of strengths, it also has several limitations that should be addressed in future work. First, it is not ideal that the diversity training activities in Study 1 were not paired with basic diversity training (e.g., a lecture), as would typically be done in a live organization. To promote generalizability and external validity, future studies should seek to replicate and extend these findings by pairing diversity training activities with foundational diversity training in a live organization. While I am seeking to remedy this limitation by continuing to collect data in Study 2, I should note that a corresponding strength of Study 1 is the employment of a true control group, which is often not possible or practical when utilizing field study designs. Additionally, seminal reviews of diversity training programs (e.g., Bezrukova et al., 2012; Kalev et al., 2006; Kulik & Roberson, 2008) have concluded that the addition of a standard diversity training programs would not necessarily enhance, and in some cases



may have even hindered, my observed effects. Second, although it is a strength of my studies that I had multiple measurement time points, ideally these time points would have been greater in number and more spread out in time to more effectively analyze when more distal outcomes of diversity training were affected by these activities. Future studies should employ additional time points and track participants over time to better answer the question of when specific mediators and distal training outcomes are affected. Third, there was a considerable amount of attrition associated with my samples. However, I have no reason to believe this attrition systematically affected my results in any way. Indeed, follow-up analyses revealed that none of the time 1 variables in either study significantly predicted study completion.

## CONCLUSION

The current studies provide novel evidence regarding the relative effectiveness of three diversity training methods on diversity-related attitudes and behaviors. Specifically, while the reflection activity was most successful overall, I showed that diversity trainers and researchers may need to consider the levels of trait empathy and social dominance orientation of the individuals in their sample before deciding which training method to use. Additionally, more proximal outcomes and mediators of diversity training exercises may need to be measured and considered at appropriate time intervals to uncover previously masked effects. These findings provide partial support for my theoretical model in that emotions and motivations served as explanatory mechanisms and trainee characteristics of trait empathy and social dominance orientation served as moderators of the effectiveness of various diversity training activities. Appealing to individuals who may be resistant to training or who are likely to be successful with a given activity while measuring the process variables that give rise to pro-social change appear to be fruitful avenues for future research and practice.

## APPENDIX

Table 1:

*Correlations Among and Descriptive Statistics for Key Study 1 Variables.*

		1	2	3	4	5	6	7	8	9	10	11
	<i>M (SD)</i>											
1. Trait Empathy	5.21 (1.00)	(.74)	-.17*	.17*	-.12	.11	-.13	.14	.62**	.68**	.55**	.04
2. Social Dominance Orientation	3.46 (1.73)		(.96)	.16	.18*	.49**	.23**	.25**	-.37**	-.33**	-.02	.31**
3. Socially Engaging Emotions (Pos)	2.98 (1.21)			(.85)	.28**	.39**	.21*	.20*	.11	.07	.24**	.09
4. Socially Engaging Emotions (Neg)	1.74 (1.02)				(.82)	-.01	.77**	.15	-.06	-.17*	.02	.24**
5. Socially Disengaging Emotions (Pos)	2.94 (1.30)					(.77)	.05	.19*	-.09	.02	.26**	-.04
6. Socially Disengaging Emotions (Neg)	1.90 (1.12)						(.81)	.14	-.12	-.29**	-.03	.24**
7. External Motivation	4.28 (1.45)							(.86)	.07	.04	.14	.34**
8. Internal Motivation	5.11 (1.29)								(.87)	.61**	.51**	-.12
9. Pro-Diversity Attitudes	5.77 (1.02)									(.94)	.58**	-.07
10. Pro-Diversity Behaviors	4.98 (1.20)										(.93)	-.17*
11. Pro-Diversity Cognitions	4.62 (1.24)											(.88)

*Note.* Reliabilities (Cronbach's alpha) for each scale are reported in the diagonal. \* indicates that  $p < .05$ , while \*\* indicates that  $p < .01$ .

Table 2:

*Indirect Effects of Diversity Training Methods on Diversity-related Attitudes, as Mediated by Emotions and Motivations – Study 1.*

Mediator	<u>Perspective Taking</u>			<u>Reflection</u>			<u>Goal Setting</u>		
	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI
Socially Engaging (Pos)	0.00	-0.03	0.06	0.00	-0.02	0.05	0.00	-0.06	0.03
Socially Engaging (Neg)	-0.01	-0.10	0.03	0.03	-0.04	0.20	-0.01	-0.11	0.02
Socially Disengaging (Pos)	0.01	-0.01	0.08	-0.01	-0.11	0.01	-0.02	-0.13	0.02
Socially Disengaging (Neg)	0.00	-0.13	0.13	-0.13	-0.33	-0.02	0.05	-0.05	0.21
External Motivation	0.00	-0.03	0.06	0.00	-0.03	0.05	0.00	-0.05	0.03
Internal Motivation	-0.13	-0.40	0.10	0.21	0.03	0.41	0.03	-0.22	0.31

*Note.* Confidence intervals excluding zero indicate a significant mediation effect. LLCI = lower limit confidence interval.

ULCI = upper limit confidence interval.

Table 3:

*Indirect Effects of Diversity Training Methods on Diversity-related Behaviors, as Mediated by Emotions and Motivations – Study 1.*

Mediator	<u>Perspective Taking</u>			<u>Reflection</u>			<u>Goal Setting</u>		
	Effect	LLCI	ULCI	Effect	LLCI	ULCI	Effect	LLCI	ULCI
Socially Engaging (Pos)	0.01	-0.02	0.14	0.01	-0.02	0.08	-0.01	-0.12	0.02
Socially Engaging (Neg)	-0.01	-0.13	0.03	0.04	-0.04	0.21	-0.01	-0.15	0.02
Socially Disengaging (Pos)	0.04	-0.09	0.18	-0.05	-0.21	0.07	-0.12	-0.32	-0.01
Socially Disengaging (Neg)	0.00	-0.06	0.07	-0.04	-0.24	0.05	0.01	-0.02	0.16
External Motivation	0.01	-0.04	0.11	0.01	-0.04	0.09	0.00	-0.07	0.05
Internal Motivation	-0.13	-0.41	0.09	0.21	0.03	0.45	0.03	-0.23	0.30

*Note.* Confidence intervals excluding zero indicate a significant mediation effect. LLCI = lower limit confidence interval.

ULCI = upper limit confidence interval.

Table 4:

*Indirect Effects of Diversity Training Methods on Diversity-related Attitudes, as Mediated by Emotions and Motivations, and Moderated by Trait Empathy – Study 1.*

Mediator	<u>Perspective Taking</u>			<u>Reflection</u>			<u>Goal Setting</u>		
	Index	LLCI	ULCI	Index	LLCI	ULCI	Index	LLCI	ULCI
Socially Engaging (Pos)	0.00	-0.04	0.07	0.00	-0.09	0.04	0.00	-0.03	0.04
Socially Engaging (Neg)	0.02	-0.02	0.19	-0.01	-0.13	0.04	-0.03	-0.16	0.02
Socially Disengaging (Pos)	0.01	-0.02	0.07	-0.01	-0.10	0.02	-0.01	-0.10	0.01
Socially Disengaging (Neg)	-0.07	-0.24	0.03	0.00	-0.14	0.19	0.11	0.02	0.28
External Motivation	0.01	-0.04	0.07	0.00	-0.06	0.03	0.00	-0.02	0.07
Internal Motivation	0.13	-0.02	0.29	-0.15	-0.35	0.02	0.00	-0.16	0.16

*Note.* Confidence intervals excluding zero indicate a significant moderated mediation effect. LLCI = lower limit confidence interval. ULCI = upper limit confidence interval.

Table 5:

*Indirect Effects of Diversity Training Methods on Diversity-related Attitudes, as Mediated by Emotions and Motivations, and Moderated by Social Dominance Orientation – Study 1.*

Mediator	<u>Perspective Taking</u>			<u>Reflection</u>			<u>Goal Setting</u>		
	Index	LLCI	ULCI	Index	LLCI	ULCI	Index	LLCI	ULCI
Socially Engaging (Pos)	0.00	-0.07	0.05	0.00	-0.02	0.05	0.00	-0.05	0.01
Socially Engaging (Neg)	-0.02	-0.14	0.01	-0.01	-0.10	0.02	0.01	-0.01	0.09
Socially Disengaging (Pos)	-0.01	-0.07	0.01	0.02	-0.01	0.06	0.00	-0.04	0.01
Socially Disengaging (Neg)	0.07	-0.01	0.24	-0.01	-0.10	0.07	-0.03	-0.15	0.02
External Motivation	0.00	-0.04	0.01	0.00	-0.01	0.04	0.00	-0.03	0.02
Internal Motivation	0.01	-0.13	0.16	0.13	0.04	0.25	-0.13	-0.29	0.01

*Note.* Confidence intervals excluding zero indicate a significant moderated mediation effect. LLCI = lower limit confidence interval. ULCI = upper limit confidence interval.

Table 6:

*Indirect Effects of Diversity Training Methods on Diversity-related Behaviors, as Mediated by Emotions and Motivations, and Moderated by Social Dominance Orientation – Study 1.*

Mediator	<u>Perspective Taking</u>			<u>Reflection</u>			<u>Goal Setting</u>		
	Index	LLCI	ULCI	Index	LLCI	ULCI	Index	LLCI	ULCI
Socially Engaging (Pos)	-0.02	-0.11	0.03	0.01	-0.01	0.08	-0.01	-0.09	0.01
Socially Engaging (Neg)	-0.02	-0.15	0.01	-0.01	-0.11	0.02	0.01	-0.01	0.11
Socially Disengaging (Pos)	-0.04	-0.14	0.03	0.07	0.01	0.16	-0.01	-0.11	0.06
Socially Disengaging (Neg)	0.02	-0.02	0.17	0.00	-0.07	0.02	-0.01	-0.11	0.01
External Motivation	0.00	-0.08	0.02	0.00	-0.02	0.06	0.00	-0.05	0.03
Internal Motivation	0.01	-0.12	0.18	0.14	0.04	0.28	-0.14	-0.32	0.01

*Note.* Confidence intervals excluding zero indicate a significant moderated mediation effect. LLCI = lower limit confidence interval. ULCI = upper limit confidence interval.



Table 7:

*Indirect Effects of Diversity Training Methods on Diversity-related Cognitions, as Mediated by Emotions and Motivations, and Moderated by Social Dominance Orientation – Study 1.*

Mediator	<u>Perspective Taking</u>			<u>Reflection</u>			<u>Goal Setting</u>		
	Index	LLCI	ULCI	Index	LLCI	ULCI	Index	LLCI	ULCI
Socially Engaging (Pos)	-0.01	-0.15	0.05	0.01	-0.02	0.10	-0.01	-0.11	0.01
Socially Engaging (Neg)	-0.02	-0.12	0.02	-0.01	-0.12	0.01	0.01	-0.01	0.10
Socially Disengaging (Pos)	0.02	-0.01	0.12	-0.03	-0.12	0.01	0.01	-0.03	0.12
Socially Disengaging (Neg)	-0.03	-0.15	0.02	0.00	-0.03	0.07	0.01	-0.01	0.10
External Motivation	-0.05	-0.18	0.05	0.05	-0.02	0.17	-0.01	-0.15	0.13
Internal Motivation	0.00	-0.08	0.03	-0.04	-0.15	-0.001	0.04	-0.003	0.15

*Note.* Confidence intervals excluding zero indicate a significant moderated mediation effect. LLCI = lower limit confidence interval. ULCI = upper limit confidence interval.

Figure 1.

*Theoretical Model of Diversity Training Effectiveness.*

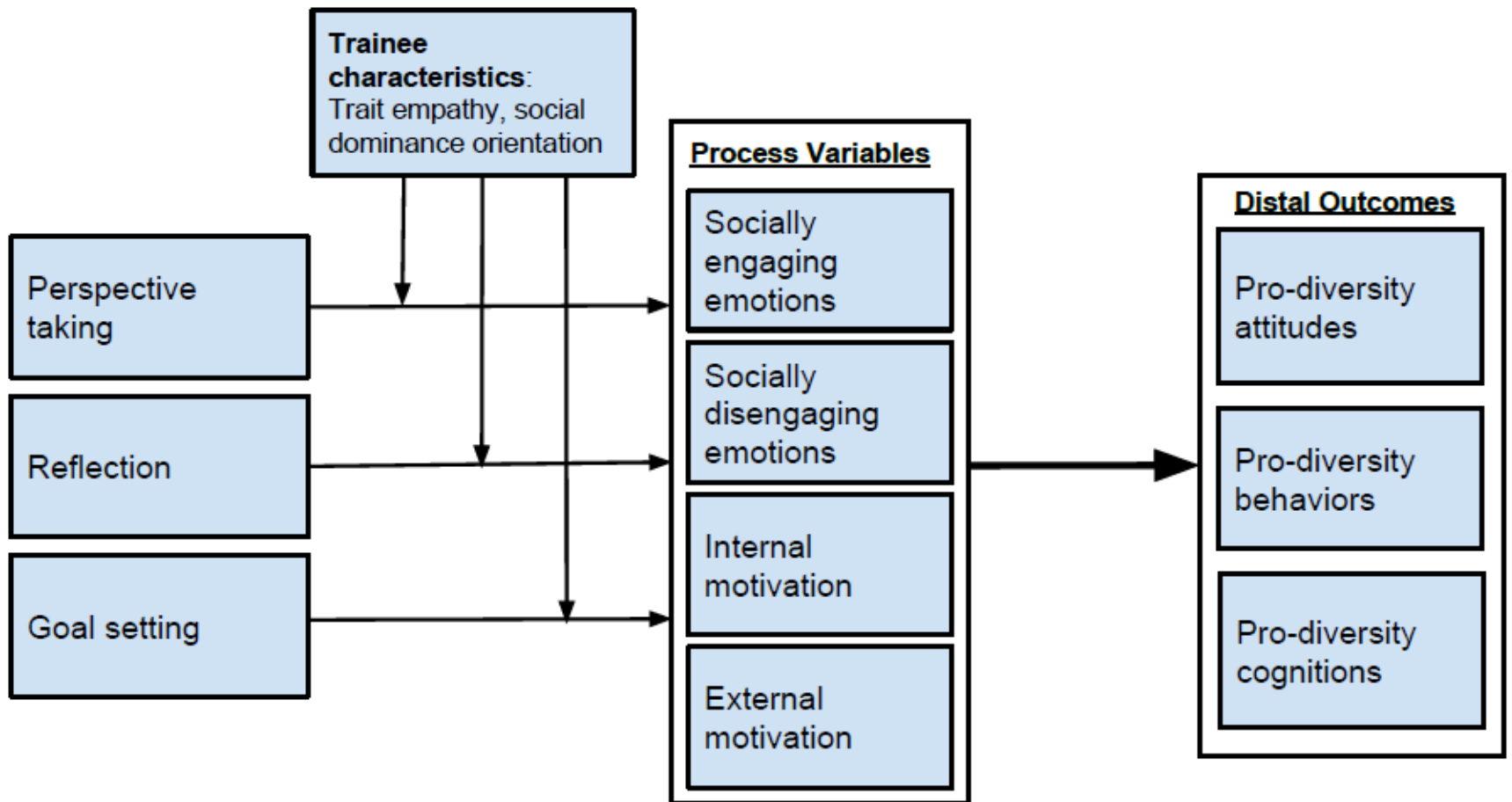


Figure 2.

*Plotted Interaction Between Goal Setting and Trait Empathy in Predicting Socially Disengaging Negative Emotions – Study 1.*

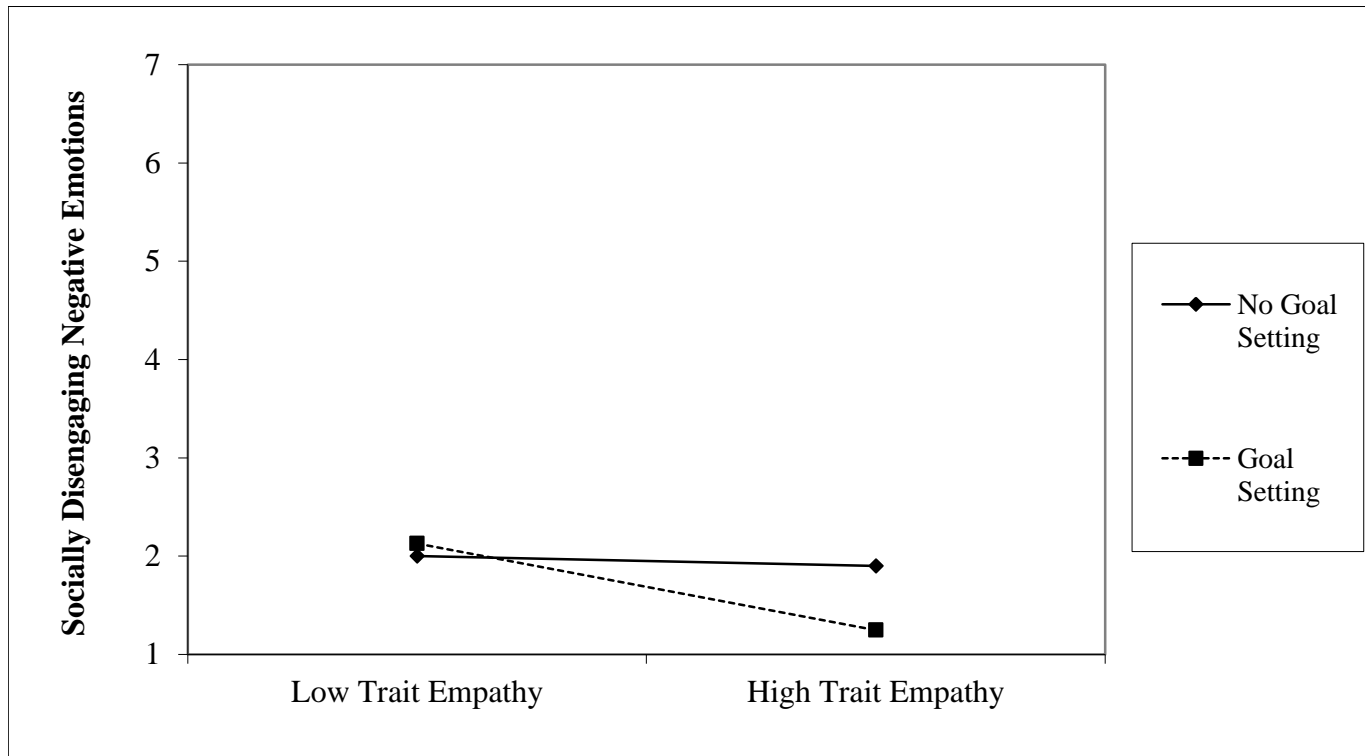


Figure 3.

*Plotted Interaction Between Reflection and Social Dominance Orientation in Predicting Internal Motivation to Respond Without Prejudice – Study 1.*

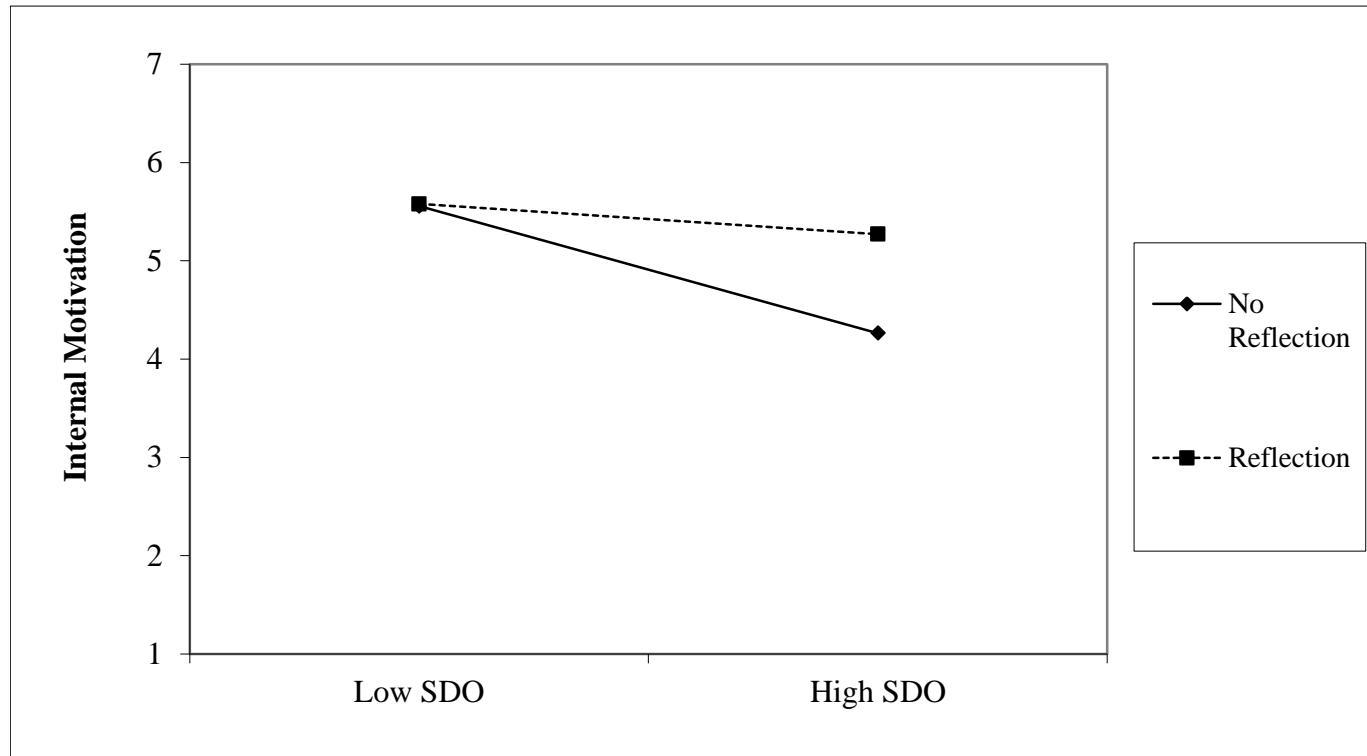
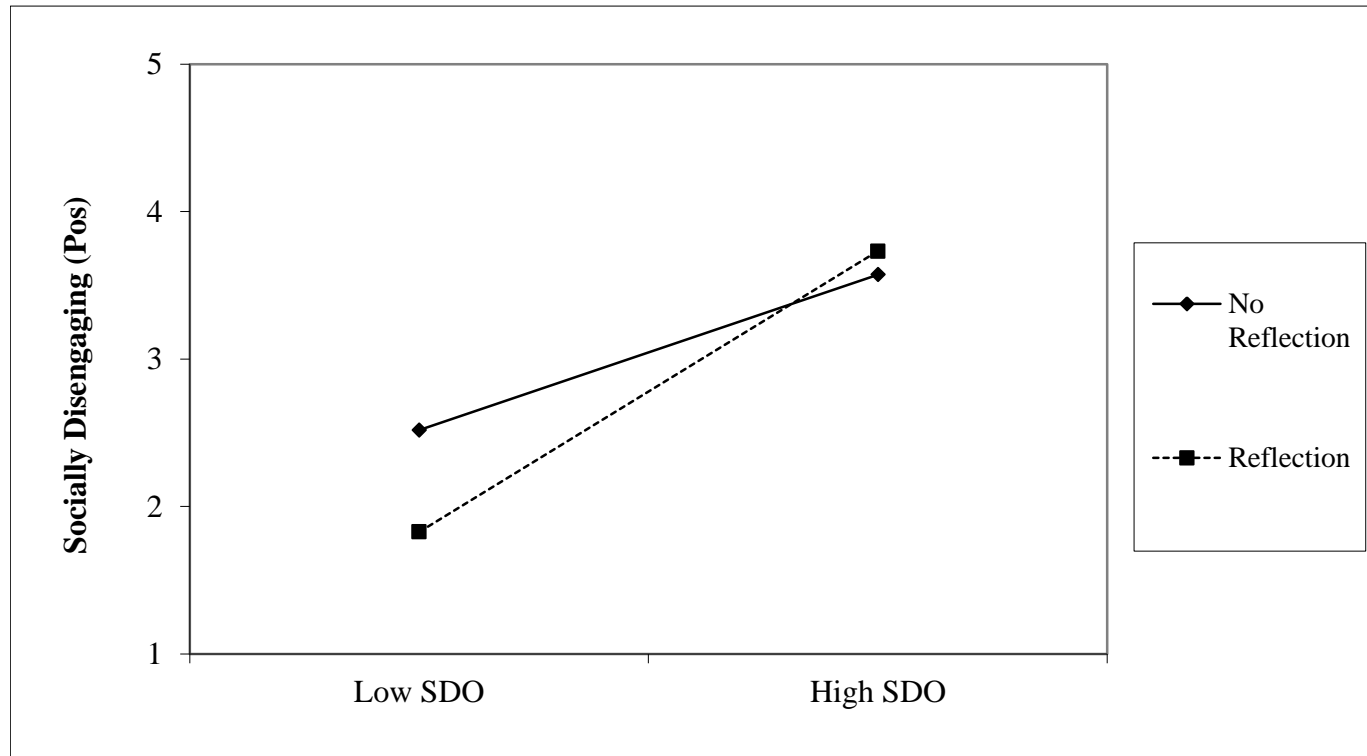


Figure 4.

*Plotted Interaction Between Reflection and Social Dominance Orientation in Predicting Socially Disengaging Positive Emotions – Study 1.*



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## **BIOGRAPHY**

Alex Lindsey received his Bachelor of Science from Indiana University – Purdue University Indianapolis in 2011. He received his Master of Arts in Industrial/Organizational Psychology from George Mason in 2013. Throughout his time in graduate school, he has conducted research examining the impact of diversity and discrimination in the workplace, with a special focus on discrimination reduction strategies. After graduation, he will be joining the psychology department at his alma mater, Indiana University – Purdue University Indianapolis, to continue this program of research.