

Positive and Negative Emotion, Group Climate, and Ethnocultural Empathy in Intergroup
Dialogue

A Thesis Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Keri Frantell

May 2016

Copyright © Keri A. Frantell
All rights reserved.

ACKNOWLEDGEMENTS

I would like to express my sincerest gratitude to Dr. Joe Miles for all of his continued support and guidance in both this project and my overall academic career at the University of Tennessee. I would also like to extend a special thanks to both Dr. Jake Levy and Dr. Brent Mallinckrodt for serving on my thesis committee.

I would also like to express my appreciation for the support my family has given me in pursuit of higher education and a career I am passionate about. It is only with the support of both my parents, Bob Frantell and Sue Cushway, that I have made it to this point in my career. I appreciate all the kind words, humor, and encouragement I have received from my siblings, Amy Brown, Marcus Brown, Nick Frantell, and Jamie Frantell, as well as my grandparents, Doris and Bob Mekeel.

I am truly blessed to have the support and encouragement of several colleagues who have helped me over the course of this project. I am so thankful for the support and help of Jonny Bourn, Kathy Wierzchowski, Angi Felber, Kevin Fry, Brittany Coppinger, Marlene Williams, Renee Mikorski, Cecile Gadson, and Lindsay Robinson.

ABSTRACT

We examined shared emotional experiences of 89 participants in 24 intergroup dialogue (IGD) groups at a large, public university in the Southeastern US. These groups brought together students for sustained dialogue about gender, race and ethnicity, religion and spirituality, sexual orientation, or social class and associated forms of privilege and oppression. They were designed to develop: (a) relationships across groups, (b) critical social consciousness, and (c) capacities to promote social justice. Dialogue groups met for eight consecutive weeks. After each session, participants completed measures of group climate and positive and negative emotion during the session. In addition, they completed a measure of ethnocultural empathy prior to their first dialogue and after their last session. Based on research on shared emotion and other shared experiences, we predicted similarity in group members' emotional experiences within a session (operationalized as the session standard deviation) would increase over time, and that mean levels and similarity in positive and negative emotions would relate to positive outcomes at both the session-level (i.e., group climate) as well as across eight weeks of dialogue (i.e., ethnocultural empathy). Contrary to our hypotheses, group members' emotions did not converge over time. Mean levels of positive and negative affect, but not similarity, were significantly related to group climate factors. Implications for IGD facilitator training and supervision are discussed.

Keywords: critical multicultural education, emotion, group climate, group processes, intergroup dialogue, multicultural psychology

TABLE OF CONTENTS

Chapter I: Introduction.....	1
Chapter II: Literature Review	3
Intergroup Dialogue	3
Theoretical Foundations.....	3
The four-stage, critical-dialogic model.....	4
Structural Considerations	6
Research on IGD.....	7
Ethnocultural Empathy	8
Group Climate.....	9
Emotion in Intergroup Relations.....	12
Shared Emotions	13
Current Study	17
Chapter III: Methods.....	20
Participants.....	20
Groups.....	20
Group Members	21
IGD Facilitators	23
Measures	23
Positive and Negative Affect Schedule.....	23
Scale of Ethnocultural Empathy	24
Group Climate Questionnaire Short-Form.....	25
Procedure	26
Chapter IV: Results.....	27
Emotional Similarity Over Time	29
Emotion and Group Climate	30
Pre-to-Post Dialogue Ethnocultural Empathy.....	32
Emotion and Empathic Perspective Taking.....	33
Chapter V: Discussion	35
Strengths and Limitations	41
Implications for Practice and Research.....	43
Practice.....	43
Research.....	43
List of References	46
Appendix.....	57
Vita.....	65

LIST OF TABLES

Table 1. Group Member Demographics	58
Table 2. Pearson Correlations Between Affect and Group Climate Means and Change in EPT	60
Table 3. Gamma Coefficients, Standard Errors, <i>t</i> -Ratios, Degrees of Freedom, and p-Values for Analyses of Positive and Negative Similarity Change Over Time.....	61
Table 4. Gamma Coefficients, Standard Errors, <i>t</i> -Ratios, Degrees of Freedom, and p-Values for Analyses of the Relationship Between Affect and Group Climate	62
Table 5. Gamma Coefficients, Standard Errors, <i>t</i> -Ratios, Degrees of Freedom, and p-Values for Analyses of the Scale of Ethnocultural Empathy	63
Table 6. Gamma Coefficients, Standard Errors, <i>t</i> -Ratios, Degrees of Freedom, and p-Values for Analyses of Positive and Negative Affect and EPT	64

CHAPTER I: INTRODUCTION

There is growing empirical evidence that students who are exposed to greater diversity in higher education experience a wide variety of positive outcomes. For example, they are more interested in learning about people who are different from them, are better able to take the perspectives of others, and exhibit greater civic engagement (Gurin, Nagda, & Lopez, 2004). Increased multicultural awareness from being exposed to a diverse student population and diverse perspectives also better prepares students for living and working in a diverse world (Banks, 2002). However, research also suggests that *structural diversity*, or “the numerical representation of diverse groups” (Gurin, Dey, Hurtado, & Gurin, 2002, p. 3), alone is not enough for students to realize these benefits of diversity. Gurin et al. (2002) noted that, while it increases the opportunities that students have for interacting with people different from themselves, structural diversity alone does not ensure that students actually engage in meaningful interactions with one another.

In order to provide students with opportunities to meaningfully engage across social groups, many campuses have adopted *intergroup dialogue* (IGD) programs. IGD (Gurin, Nagda, & Zúñiga, 2013; Zúñiga, Nagda, Chesler, & Cytron-Walker, 2007) brings together individuals from social identity groups that have historically had tension between them (e.g., people of color and white people; lesbian, gay, and bisexual people and heterosexual people), with the goals of: (a) building relationships across groups, (b) building a critical awareness of hierarchical social systems, and (c) developing capacities to promote social justice. These goals unfold through sustained communication over a number of weeks, as group members develop relationships with one another and explore group similarities, differences, and personal experiences with socialization, privilege, and oppression (Zúñiga et al., 2007). The emphasis on developing

relationships and the exploration of personal experiences means that IGD is different from traditional forms of pedagogy (e.g., a lecture). It also means that IGD involves personally meaningful and emotional content. Recent research suggests that the initial sessions of IGD, when the focus is on developing a relationships and a safe climate in which to dialogue, are characterized by relatively high levels of positive emotion, and relatively low levels of negative emotion, (Miles, Muller, Arnett, Bourn, Johnson, & Recabarren, 2015). As the dialogue progresses to more high-risk and difficult topics (e.g., privilege and current social conflicts), positive affect decreases and negative affect increases. Thus, in successful IGD, we expect both positive and negative emotions to be experienced and expressed over time.

While there is an acknowledgement that emotion is a critical element of intergroup contact (e.g., Stephan & Stephan, 2001) broadly, and IGD (Khuri, 2004) specifically, there has been little research on emotional processes in IGD. An understanding of emotional processes in IGD and their relation to group member outcomes is crucial, however, to train IGD facilitators to work effectively with both positive and negative emotions. In an effort to develop our understanding of emotion in IGD, the current study will draw on the literature on shared affect to examine if and how the amount and consistency of positive and negative emotions in IGD groups relate to session-level (group climate) and overall (ethnocultural empathy) outcomes. We begin with a description of IGD theory, practice, and research. We then review the research on shared emotion in groups and present our study of shared emotion in IGD.

CHAPTER II: LITERATURE REVIEW

Intergroup Dialogue

Theoretical foundations. IGD is a small group intervention in higher education that aims to build relationships between diverse individuals, develop a critical consciousness, and build capacities for promoting social justice (Zúñiga et al., 2007). It provides opportunities for sustained, face-to-face contact between students from different social identity groups that have a history of tension between them (e.g., people of color and white people; lesbian, gay, and bisexual people and heterosexual people). IGD is based, in part, on Allport's (1954) contact hypothesis, which suggests that contact with outgroup members can have positive effects if four conditions are present: (1) there is equal group status in the contact situation, (2) there are common goals among the individuals, (3) there is interdependence among the individuals in order to meet the goals, and (4) there is support from some authority. Pettigrew (1998) added a fifth condition, friendship potential, and found that when group membership is salient and individuals view outgroup members as typical of that outgroup, this also makes it more likely for contact to change attitudes and behavior. A growing body of research finds that contact between individuals of different social identities will decrease prejudice (Pettigrew & Tropp, 2006; Pettigrew, Tropp, Wagner, & Christ, 2011). Contact with outgroup members has been found to reduce prejudice, even in situations where the individuals have no choice in having contact with outgroup members (Miller, Smith, & Mackie, 2004; Pettigrew & Tropp, 2006; Pettigrew et al., 2011). The structure of IGD provides the conditions of Allport's conditions for contact in several ways. First, in attempting to develop equal status in the contact situation, IGD groups are composed of approximately equal numbers of individuals who identify as members of the oppressed and privileged social identity groups (e.g., in a dialogue on race, approximately half of

the participants would identify as people of color and the other half as white people). Similarly, IGD is co-facilitated with one facilitator each identifying with the oppressed and privileged social identity groups. These co-facilitators also work to ensure that members all have equal opportunities to share and participate, and that there is balance between the dominant narratives and counter narratives. Group members participate in structured activities with common goals, addressing the cooperative conditions for contact. The groups are typically offered as for credit courses sanctioned by the college or university, which provides support from authorities necessary to satisfy Allport's fourth condition. The groups also offer a safe place for members to form relationships with others, satisfying Pettigrew's (1998) added fifth condition.

The four-stage, critical-dialogic model. In higher education, IGD typically uses a *critical-dialogic* approach (Nagda & Gurin, 2013; Sorensen, Nagda, Gurin, & Maxwell, 2009) that aims to engage group members in personal examinations of inequalities, while also fostering relationships between individuals from different social identity groups (Nagda & Gurin, 2013). This approach is *critical* in that it involves a “conscientious effort to examine how individual and group life are meaningfully connected to group identity, and how those identities exist in structures of stratification that afford members of different groups privileges and disadvantages, resulting in continued group-based inequalities” (Sorensen et al., 2009, p. 14). In this sense, IGD encourages participants to develop a “critical” awareness about social identities and social systems. Using the critical-dialogic approach, group members begin to identify and examine the similarities and differences between social identity groups by purposefully evaluating how their individual and group identities (and associated forms of privilege and/or oppression) are intertwined with social systems and institutions (Nagda & Gurin, 2013; Zúñiga et al., 2007).

IGD is *dialogic* in that it emphasizes skill-building in areas such as asking difficult questions, sharing, and active listening (Nagda & Gurin, 2013). Group members also learn that the objective of dialogue is not to “win” or convince others that one’s own perspective is the “right” one, as in debate, but rather to develop an understanding of the other from her or his perspective (Flick, 1998). Group members are encouraged to actively participate and to be both active listeners and talkers. A goal of IGD is to build relationships between members, adding an affective component to the learning (Zúñiga et al., 2007). Group members are encouraged to focus on their roles as both an individual and as a member of the group. There is an intergroup focus in which students recognize the varying roles that each social identity group plays in systems of oppression and privilege, with a focus on the contextual roots of institutional discrimination (Zúñiga et al., 2007). An important aspect of IGD and the critical-dialogic practice model is to help group members connect their analysis of the roles in structural systems to concrete action (Nagda & Gurin, 2013).

The critical-dialogic model of IGD involves four-stages, with the level of risk asked of group members gradually increasing across each stage. The first stage involves the development of relationships and the establishment of a productive space in which to dialogue (Zúñiga et al., 2007). In this stage, it is essential that facilitators foster a safe environment for group members to begin to share their experiences and connect with individuals with both similar and different social identities. Research suggests that positive emotions are generally high, and negative emotions are generally low in this early stage (Miles et al., 2015). During this stage, group members learn about dialogue as a unique form of communication, and begin to develop the necessary skills to be involved in a critical and productive dialogue. Individuals also begin to identify their own social identities in preparation for the second stage of the group.

In the second stage, group members begin to explore their multiple social identities and the similarities and differences between individuals and social identity groups (Zúñiga et al., 2007). During this stage, the primary goal is to increase awareness and raise consciousness of group members. Group members are encouraged to explore their identities and various forms of privilege and/or oppression associated with these identities. As awareness increases, it leads to the third stage, where individuals begin to dialogue about “hot topics” (Zúñiga et al., 2007) relevant to their social identity groups (e.g., race-based admissions policies in IGD focused on race, same-sex marriage in IGD focused on sexual orientation or religion) and are encouraged to listen to new and different perspectives. Group members also have the opportunity to analyze the associated systems of privilege, power, and oppression, and to consider the different roles that individuals and groups have in these systems. Exploration of the historical and cultural roots of group conflict is one part of the conversation. Trust and risk-taking are both emphasized in this stage, which prepares members for the fourth stage: action planning and alliance building. In this stage, the emphasis is less on reflective dialogue and more on individuals and groups planning for social action, as well as offering closure to the IGD experience (Zúñiga et al., 2007).

Structural considerations. Groups are typically comprised of 12-16 members, with approximately equal numbers of members identifying with the oppressed and privileged social identity groups (Zúñiga, Nagda, & Sevig, 2002). Groups meet for eight to 12 consecutive, weekly, semi-structured sessions. IGD groups are co-facilitated by two trained leaders who help guide the group members in structured activities and dialogue.

As described above, there are three goals of IGD: (a) consciousness raising, (b) building relationships, and (c) strengthening capacities to promote social justice (Zúñiga et al., 2007). Consciousness raising is similar to what Paolo Freire (1970) referred to as the development of a

critical consciousness. *Critical* in this sense means a reflective evaluation of sociopolitical and cultural influences, and *consciousness* meaning an increased awareness of hierarchical social systems that perpetuate inequality. Freire considered the development of a critical consciousness to be essential to liberation of oppressed individuals. While an individual IGD group typically emphasizes a single social identity (e.g., gender, race, or sexual orientation), group members are encouraged to recognize multiple identities and systems of privilege and oppression. Group members first engage in a process of exploring their own identities and socialization, then begin exploring how these identities fit within hierarchical social systems (Hardiman & Jackson, 1992).

The second goal of IGD is to foster relationships across social identity groups (Zúñiga et al., 2007). Utilizing the critical-dialogic method, group members develop mutual respect and empathic connections with others of different social identity groups. Sessions are facilitated to promote honest conversations about social identities, drawing attention to differences while also providing a bridge between group members. The third goal of IGD is to strengthen abilities for promoting social justice (Zúñiga et al., 2007). As individuals build relationships and increase their awareness of social issues and their positions within hierarchical social systems, they begin to explore possibilities for social change.

Research on IGD. Research on the outcomes of IGD shows a range of positive results. Students who participate in IGD are more likely to critically consider issues of racial and ethnic inequalities (Muller & Miles, 2016; Zúñiga et al., 2007), demonstrate increased critical consciousness (Griffin et al., 2012), have a greater awareness of the importance of racial identities (Nagda & Zúñiga, 2003), establish increased positive relationships with people of other social identities years after the IGD (Gurin et al., 2004; Gurin, Peng, Lopez, & Nagda, 1999),

have improved active thinking and academic skills (Gurin et al., 2002), challenge stereotypes (Griffin, Brown, & Warren, 2012), display a greater knowledge of structural inequalities (Sorensen et al., 2009), and have increased intergroup friendships (Griffin et al., 2012). In addition, white students and African American students increase their ability to take the perspectives of others (Dessel & Rogge, 2008), while students of color report increased feelings of commonality between themselves and white students after participation in IGD (Gurin et al., 1999, 2004). Recent research also suggests that participation in IGD can help increase aspects of students' ethnocultural empathy, specifically their empathic perspective taking skills (Muller & Miles, 2016).

There is a growing body of research on the outcomes of IGD indicating that it is effective, but there is less research on the session-level outcomes that facilitate positive outcomes. In other words, in addition to examining *if* IGD is effective, it is also important to consider the collection of data on session-level processes and outcomes that explain *how* these interventions are effective. Best practices for collecting group data involve collecting data each session, so as to provide both researchers and facilitators with the most accurate information about how change occurs across time (Miles & Paquin, 2014). Therefore, the current study examines emotions in relation to both an overall outcome of IGD, ethnocultural empathy, as well as a session-level outcome, perceptions of group climate.

Ethnocultural Empathy

A critical component of IGD is that it brings people together across social identity groups (Zúñiga et al., 2007). In this way, IGD fosters relationships, which foster empathy across groups. *Ethnocultural empathy* is understanding of and shared feeling “directed toward people from racial and ethnic cultural groups who are different from one’s own ethnocultural group”

(Wang et al., 2003, p. 221). Ethnocultural empathy has been examined in several contexts. For example, in one study of a diverse workforce, Brouwer and Boros (2010) found that ethnocultural empathy mediated the relationship between intergroup contact and positive attitudes towards diversity. This study suggests that intergroup contact may both influence and be influenced by ethnocultural empathy. In another study, students with higher ethnocultural empathy were found to have more positive perceptions of diversity programming (Cundiff, Nadler, & Swan, 2009).

Development of ethnocultural empathy is consistent with two of the goals of IGD: consciousness raising and fostering relationships with diverse others. With these goals in mind, we would expect that ethnocultural empathy would increase across time and with prolonged exposure to members of a different social identity group. Muller and Miles (2016) found just this. Specifically, they found significant changes in empathic perspective taking, one aspect of ethnocultural empathy, as operationalized by Wang et al. (2003) in their *Scale of Ethnocultural Empathy*. One goal of the current study is to build on the research of Muller and Miles, by examining one possible mechanism through which empathic perspective taking develops: shared emotional experiences. As emotion is a critical aspect of IGD, we expect that emotion processes are related to the development of ethnocultural empathy, however we are not aware of any research connecting these two concepts.

Group Climate

Though changes in ethnocultural empathy allow us to view progress after the conclusion of IGD, we were also interested in examining session level outcomes that might be impacted by shared emotional experiences. In the literature on other group interventions (group counseling) group climate has been found to directly relate to group member outcomes, and to serve as a

mediator in the relationships between other variables, like leadership, and group member outcomes (McClendon & Burlingame, 2010). Though there is some variation in how it is defined, *group climate* typically refers to “the general emotional atmosphere of the group” (McClendon & Burlingame, 2011, p. 165). It includes “the consensually perceived psychosocial environment that [group] members work within as well as the socioemotional/feeling tone of the group” (McClendon & Burlingame, 2011, p. 165).

The *Group Climate Questionnaire-Short Form* (GCQ-S; MacKenzie, 1983) is one of the most frequently used measures of group climate, and it includes scales that assess engagement, avoidance, and conflict (MacKenzie, 1981) in a session. This assessment has 12 items with three subscales that measure engagement, avoidance, and conflict, respectively. Items on the “Engaged” scale measure group members’ “desire to attend the group, the importance of the group to them, and their sense of close intense participation” (MacKenzie, 1981, p. 290). The “Avoiding” subscale includes items to measure “the idea of avoidance of responsibility by members of their own change processes” (MacKenzie, 1983, pp. 165-166). The “Conflict” subscale is used to measure “feelings and attitudes indicating interpersonal friction, disagreement, and anger among the members, as opposed to general acquiescence and attempts to muffle conflict” (MacKenzie, 1981, p. 290).

Engagement appears to be a particularly important and powerful aspect of group climate. It has been likened to cohesion, as it measures an individual group member’s desire to attend their group and how much they value it (MacKenzie, 1981). High cohesion and/or engagement have been found to relate to positive outcomes, while low cohesion and engagement, and high conflict and avoidance have been found to relate to negative outcomes (Budman et al., 1989; Kapp, Gleser, & Brissenden, 1964; MacKenzie, Dies, Coché, Rutan, & Stone, 1987; Roether &

Peters, 1972). It is important for groups to establish cohesion and engagement early in the life of the group in order to establish a safe and trusting environment for deeper discussions later in the group (Kivlighan & Lilly, 1997). Clients who perceive their group experience to be one that is cohesive are also more likely to have higher attendance records and report a greater sense of therapeutic results (Dickoff & Lakin, 1963). Research suggests that engagement also relates to group member outcomes in IGD, specifically (Muller & Miles, 2016). Muller and Miles examined group climate using the GCQ-S in 19 IGD groups across eight weeks. They found significant changes in participants' awareness of racial privilege and institutional discrimination, as well as their empathic perspective-taking abilities. In addition, they found that post-dialogue awareness and perspective-taking were positively related to the slope of Engaged over time, suggesting that increasing engagement in IGD is related to positive outcomes.

Several factors have been found to contribute to climate development in group counseling research. For example, MacKenzie, who developed the GCQ-S, felt that "the group climate is seen as a mediating variable through which the leader exerts influence on the members" (1981, as cited in McClendon & Burlingame, 2010, p. 171). Thus, leaders help shape the group climate through their leadership style and behaviors, and group climate, in turn, may influence group member outcomes. This is consistent with research by Kivlighan and Tarrant (2001), who found that a positive therapeutic relationship of leaders to group members was related to increases in engagement, therapeutic work intentions of the leaders were related to increases in engagement, and greater group structure intentions were related to decreased conflict. In terms of IGD research, the impact of leadership on group climate has been partially supported. Specifically, Miles and Kivlighan (2008) found that similarity in co-facilitators cognitions about their group members related to a group climate characterized by increases in engagement and decreases in

avoidance over time. They hypothesized that when co-facilitators share a common conceptualization of their group members, they are better able to work toward similar goals, resulting in positive impacts on the group climate.

Group member experiences and participation in IGD sessions can also play a role in increasing cohesion and engagement. High positive emotional relatedness among group members has been found to create an atmosphere where members feel comfortable disclosing personal information, which leads to increased feelings of engagement and cohesion (Budman et al., 1989; Tschuschke & Dies, 1994). Group members' experiences of engagement can have a strong impact on the outcomes of the group. Thus, it is important to consider the factors that help facilitate a group climate where members feel engaged.

Group climate is one of the most important session level variables in group interventions (McClendon & Burlingame, 2010) as it has been found to predict particular outcomes (Bednar & Kaul, 1994; Burlingame, Fuhrinman, & Johnson, 2001; Crouch, Bloch, & Wanlass, 1994). Despite its prominence in the group literature, to our knowledge there is no research that considers how affect in IGD relates to group climate, despite the fact that affect is a critical component of IGD. We do know that positive emotions have been linked to positive outcomes in work teams, including group engagement (Magee & Tiedens, 2006; Mullen & Copper, 1994), however further research into this relationship, specifically within IGD, is yet to be explored.

Emotion in Intergroup Relations

Understanding emotional experiences in IGD is important because research suggests emotions are related to outcomes. Research suggests negative emotions may relate to negative outcomes. For example, Duffy and Shaw (2000) suggest that intragroup envy is related to greater social loafing, lower levels of cohesiveness, and less productive groups. Conversely,

positive emotions have been found to relate to positive outcomes. Barsade (2002) found that positive emotions within a group are related to greater levels of cooperativeness and to lower levels of conflict. This may be because greater positive emotions in a group are related to greater cohesion (Magee & Tiedens, 2006; Mullen & Copper, 1994). Groups that express greater unity, or that can be identified as more *entitative* (the group can be classified as more unified than merely individuals sharing physical connection or space; Campbell, 1958), are more cohesive (Barsade, 2002), particularly when group members share social membership and if that social membership is of a minority status (Magee & Tiedens, 2006). When group members perceive the other members of their group to be of a similar background, the group tends to be more cohesive, and the members tend to share more of their emotional experiences.

IGD relies on members sharing their emotional experiences with each other as a way of forming relationships (Khuri, 2004). Emotion, then, is a critical, but under researched, component to IGD process. Positive emotions in groups have been related to positive outcomes (Barsade, 2002; Magee & Tiedens, 2006; Mullen & Copper, 1994), however, this research did not involve educational groups like IGD or even similar groups like psychotherapy or counseling groups. Given the importance of emotion in IGD pedagogy, it is critical to understand how affect operates within the group and relates to group member outcomes.

Shared Emotions

Given that IGD is a group intervention, we wanted to examine emotion in two ways: the mean level of positive and negative emotion, as well as the similarity in emotional experiences of the group members. Research on group interventions suggests that not only can the mean level of a variable relate to outcomes, but the consistency with which all group members exhibit or experience that variable (Miles, Paquin, & Kivlighan, 2011). This is because a single outlier in a

group can drive the mean of a group up or down, which presents a different scenario than when an entire group shares an emotional experience. In the case of the current study on emotion, shared emotions might also reflect the development of empathy, or the experience of feeling *with* others. Though empathy is an expected and desired outcome of intergroup contact (Stephan & Stephan, 2001), the extent to which individuals share emotional experiences in IGD has not been quantitatively examined.

Because little quantitative research has examined shared emotion in IGD, we looked to the literature in organizational psychology, which has examined emotion contagion in other types of groups. *Emotion contagion* is “the transfer of moods among people in a group” (Barsade, 2002, p. 644) due to the tendency for automatic mimicry features of emotion like facial expressions, speech, and movement (Hatfield et al., 1994). This research indicates that shared emotional experiences, or emotional contagion, in a group or team, are related to group outcomes (Barsade, 2002; Bartel & Saavedra, 2000; Duffy & Shaw, 2000; Magee & Tiedens, 2006). Within this research, which we review below, there is some differentiation between terms such as mood, affect, and emotion (Barsade, 2002; Bartel & Saavedra, 2000; Hatfield et al., 1994; Kelly & Barsade, 2001), however the terms are also used interchangeably in the context of emotion contagion and group emotion research, as they will be here.

Group members who share emotions often share goals, and can use their shared emotional experiences to better engage in goal-directed behaviors (Bartel & Saavedra, 2000). As individuals continue to spend increasing amounts of time with others in a group or work setting, their emotions begin to converge (Niedenthal & Brauer, 2012). Typically, group members converge emotions with individuals they interact with most directly (Bartel & Saavedra, 2000; Totterdell et al., 2004). This convergence of emotions occurs even when controlling for other

factors that might contribute to similar emotional experiences. For example, research on both sports and work teams indicates that when controlling for similar daily experiences, the mood of an individual is still affected by their teammates' moods, and that moods converge across the team (Niedenthal & Brauer, 2012).

There are several factors that seem to contribute to mood convergence. Individual differences in susceptibility to emotional contagion or ability to share emotions can also influence the degree of mood convergence. A large range of factors can have an influence over individual susceptibility to emotional contagion, as well as a person's ability to cause contagion. The norms of a group are particularly influential in the level of mood convergence within the group. In groups where norms have developed to self-monitor and monitor the group's emotional cues, contagion is greater (Bartel & Saavedra, 2000). Gender, personal experiences, personality factors, genetics, and cultural influences also influence susceptibility to contagion (Doherty, 1997). People who are more interconnected or who are interdependent within groups are especially susceptible to emotional contagion (Doherty, 1997). Emotional contagion occurs mostly through attention to nonverbal cues. Greater attention allocation to a single person or the group leads to greater emotional contagion (Barsade, 2002). People who are strong in nonverbal expressiveness are typically better able to transfer their emotions to others, especially if they are highly visible or active in a group (Kelly & Barsade, 2001). The ability to recognize emotional expressions also contributes to emotional contagion susceptibility. Individuals are better able to recognize the emotional expressions displayed by ingroup members rather than outgroup members (Weisbuch & Ambady, 2008). People are more likely to experience contagion with individuals from their own ingroup than with outgroup members. When group members share certain emotions, this may lead to different outcomes for the group.

There are also group factors that may affect the degree of mood convergence. For example, Bartel and Saavedra (2000) found that groups with stable membership, mood regulation norms, and task and social interdependence had higher mood convergence than those without these factors. Convergence occurs in groups with higher-energy (e.g., “cheerful enthusiasm, hostile irritability,” Bartel & Saavedra, 2000, p. 222), as opposed to lower-energy emotions (e.g. “serene warmth, depressed sluggishness,” Bartel & Saavedra, 2000, p. 222). It is also more likely to occur with unpleasant rather than pleasant emotions (Bartel & Saavedra, 2000). Negative emotions and events are identified at a quicker rate than positive emotions and events (Bartel & Saavedra, 2000). When people engage in social comparison to determine their own emotions, cues related to negative emotions are found to be more relevant than cues related to positive cues (Totterdell et al., 1998).

We could find no research on shared emotions in IGD, which is problematic for the training of facilitators and the practice of IGD given the importance of emotion in IGD (Khuri, 2004; Zúñiga et al., 2007). In addition, differences in experiences with oppression, privilege, and power ascribed to different social identity group members suggests that participants might experience different emotions as their group members cover different topics. Therefore, it is important to examine if and how IGD group members experience shared emotion.

Though there has not been research on shared emotion in IGD, there has been research examining shared cognitions, or team cognition, in the context of IGD (Miles & Kivlighan, 2008). *Team cognition*, a concept most frequently used by organizational research, describes similar mental models (Cannon-Bowers, Salas, & Converse, 1993) or schemas (Rentsch & Hall, 1994) that are shared by individuals in a group or team (Rentsch & Woehr, 2004). Research on team cognition suggests that cognitions, specifically schemas or mental models, converge over

time due to communication between group members (Rentsch & Hall, 1994). This concept is similar the construct of *perceptual congruence*, the degree to which two or more people share perceptions of an object (Hatfield & Huseman, 1982), and *perceptual distance*, the extent to which there is substantial variability between perceptions of a stimulus in a social context (Gibson et al., 2009). These concepts share the hypothesis that greater similarity in cognitions (Rentsch & Woehr, 2004) - or smaller perceptual distance - will result in greater team performance (Bonito, 2004; Mathiew et al., 2000; Miles & Kivlighan, 2008; Rentsch & Klimoski, 2001). Research also indicates that perceptual congruence between group leaders and members predicts outcomes, particularly with regards to goal accomplishment and constructive conflict (Gibson et al., 2009). The magnitude and direction of incongruence also predicts the direction of outcomes (Benlian, 2013). Within the context of IGD, specifically, Miles and Kivlighan (2008) examined similarity co-facilitators' mental models of their group members in relation to group climate. They found that similarity in co-leader's mental models increased over time, and that similarity was related to increased engagement in the next session. While this research provides a foundation for understanding that similarity of experiences can relate to outcomes, additional research on similarity in emotional experiences, specifically, is needed.

Current Study

Research indicates there are many positive outcomes related to participation in IGD (Dessel & Rogge, 2008; Griffin et al., 2012; Nagda & Zúñiga, 2003; Gurin et al., 1999, 2002, 2004; Sorenson et al., 2009; Zúñiga et al., 2007), but there is considerably less research about the session level processes that facilitate these outcomes. The process research that does exist regarding IGD has some limitations, as it has mostly relied on self-report measures given at the conclusion of the groups, rather than utilizing session-level measures (Gurin et al., 1999, 2004;

Nagda, 2006; Nagda & Zúñiga, 2003). A key component to IGD is the affective experience, however this is an understudied aspect of IGD process and, to our knowledge, no research has examined session level experiences of emotion in IGD as they relate to outcomes. Research does indicate that emotional experiences can relate to outcomes in groups (Barsade, 2002; Duffy & Shaw, 2000) and there is extensive research regarding emotion convergence and the effect on performance (Barsade, 2002; Bartel & Saavedra, 2000; Duffy & Shaw, 2000; Magee & Tiedens, 2006; Mullen & Copper, 1994), however this research is almost entirely in organizational or sports psychology domains. Therefore, the purpose of the current study was to increase our understanding of emotion as it relates to outcomes in IGD. In particular, we were interested in understanding if and how shared emotional experiences among group members relate to the two important outcomes of IGD: the session level outcome of group climate and ethnocultural empathy.

Emotional contagion tends to occur in situations where individuals are working towards common goals (Bartel & Saavedra, 2000), among individuals who share social membership, especially if that membership is to a minority status (Magee & Tiedens, 2006), among individuals spending time with each other (Bartel & Saavedra, 2000; Totterdell et al., 2004), and in groups with norms for self-monitoring and mood-regulation (Bartel & Saavedra, 2000). Intergroup dialogues are representative of many of these characteristics, therefore our first hypothesis is that emotional contagion among group members will occur over time (i.e., the similarity in group members' experiences of positive and negative emotions in a session will increase over time).

Research in organizational psychology and on emotion has found a link between emotions and group dynamics (Barsade, 2002; Budman et al., 1989; Magee & Tiedens, 2006;

Mullen & Copper, 1994; Tschuschke & Dies, 1994). Specifically, emotions in groups have been linked to cohesion (Budman et al., 1989; Magee & Tiedens, 2006; Mullen & Copper, 1994; Tschuschke & Dies, 1994), cooperativeness, and decreased conflict (Barsade, 2002). Research also indicates that similarities between team members, like team cognition (Rentsch & Woehr, 2004) and perceptual congruence (Gibson et al., 2009; Hatfield & Huseman, 1982) are predictive of better performance and outcomes. This leads to our second hypothesis, that emotional similarity will be predictive of session level group climate – specifically, greater engagement and lesser avoidance and conflict.

Previous research indicates that emotional contagion in groups relates to outcomes (Barsade, 2002; Bartel & Saavedra, 2000; Duffy & Shaw, 2000; Magee & Tiedens, 2006), and research on shared experiences in groups (e.g., perceptual congruence, team cognition) have demonstrated a link between similarity of experience and group outcomes (Benlian, 2013; Gibson et al., 2004). Therefore, we hypothesize that emotional similarity among group members will relate to positive overall outcomes, specifically increased ethnocultural empathy.

CHAPTER III: METHODS

Participants

Groups. Twenty-four IGD groups from a large, public university in the Southeastern US were the groups for this study. These groups were composed of students enrolled in a section of an undergraduate multicultural psychology course across four semesters ($n = 61$, $n = 53$, $n = 47$, and $n = 41$). Participation in an IGD group (not the research) was required of all students in the second half of each semester. Students were all asked to complete surveys (described below) to evaluate the course, and were given a small amount of extra credit for each survey they completed. They were also given the option to provide informed consent to have their data included in the current research. Completion of the surveys and participation in the study were not course requirements.

At the beginning of the semester, students learned about the structure and purpose of IGD, and how it was intended to compliment the traditional lecture/discussion pedagogy typically used in psychology courses. Consistent with the broader objective of the multicultural psychology course (i.e., to further develop student multicultural and social justice competencies by building relationships across groups, developing a critical awareness of hierarchical social systems, and developing capacities to promote social justice), students were told that IGD attempts to create Allport's (1954) optimal conditions for intergroup contact, including equal status in the contact situation. As such, we strive to create groups with approximately equal representation of individuals from the oppressed and privileged social identity groups in each group. In order to compose these groups, students were asked to provide demographic information (e.g., gender, ethnicity, race, religious affiliation, sexual orientation, and social class), and to rank their preferences for a social identity topics that they would like to dialogue

about. (Students were told that they were not required to provide any demographic information that they did not wish to provide, however they generally provided all or most of the requested information). The course instructor and teaching assistants then assigned students to groups based on demographics and topic preference such that there was a relatively balanced representation of individuals from oppressed and privileged social identity groups in each group, and students were in one of their top choices for dialogue topic.

The multicultural psychology course met twice a week across the semester. For the first half of the semester, students met for a traditional, instructor-led lecture/discussion course. In the second half of the course students met once a week for the traditional course and once a week in their assigned groups. Students met in their groups for one hour and fifteen minutes each week for eight weeks. All groups were co-facilitated by two graduate students enrolled in an advanced group methods course focused on multicultural and social justice issues in group work, or the instructor of the course. Co-facilitators were assigned to groups using a similar methodology as the group members (i.e., they were asked to provide demographic information and preferences for social identity topics and the instructor assigned facilitators).

In terms of social identity topics, six groups were about religion and spirituality ($n = 8$, $n = 8$, $n = 8$, $n = 9$, $n = 9$, $n = 10$), four were gender groups ($n = 9$, $n = 9$, $n = 9$, $n = 10$), five focused on race ($n = 7$, $n = 7$, $n = 8$, $n = 9$, $n = 9$), four groups were about sexual orientation ($n = 7$, $n = 7$, $n = 9$, $n = 9$), and five groups were about social class ($n = 7$, $n = 7$, $n = 8$, $n = 8$, $n = 10$).

Group members. Group members were 202 undergraduate college students enrolled in the multicultural psychology course described above. Of the 202 total students enrolled in the course across four semesters, 180 (89.12%) gave their consent to have their survey data used for research. Students received extra credit for their participation and completion of surveys

regardless of whether they gave consent for research. In this study, we evaluated both session-level and overall outcome data, so only participants who provided information in both the pre- and post-assessments, as well as at least one session level assessment were included ($n = 98$). Students who completed the survey in less than 10 minutes were also eliminated ($n = 9$), as the pre- and post- surveys were both more than 100 items long and we felt it was impossible for students to complete the survey accurately in such a short amount of time. Using these criteria, 89 group members were included in this study (44.06% of all students enrolled in the course; 49.44% of the students who provided consent to participate in the research).

Participants ranged in age from 19 to 41 years of age ($M=21.86$, $SD=3.08$). In terms of gender, 78.65% ($n = 70$) identified as female and 21.35% ($n = 19$) identified as male. Participants were able to select more than one option for race and ethnicity, and 71 participants identified as white/Caucasian, 9 participants identified as Black or African American, 6 as Latina/o, 3 as Asian or Asian American, 2 as Middle Eastern or Arab, 2 as Multiracial, and 1 as Native American or Alaskan Native. In terms of sexual orientation, 94.38% ($n = 84$) identified as heterosexual, 2.25% ($n = 2$), identified as bisexual, 2.25% ($n = 2$) identified as other, and 1.12% ($n = 1$) identified as gay. Participants also provided information about their religion, education, and socioeconomic status. During groups conducted in 2012 and 2013, students were asked to choose from a list of socioeconomic status (SES) identities (e.g. working class, middle class), and in the years 2014 and 2015, students were asked to rank the SES of their family of origin on a continuum from 0 (*“least amount of money, the lowest levels and quality of schooling, and the least respected jobs”*) to 10 (*“most money, the highest amount and quality of schooling, and the most respected job”*). Demographics for group members are included in Table 1.

IGD facilitators. All groups were co-facilitated by graduate students enrolled in a course about group methods at the same university, or the instructor of that course, who has expertise in intergroup dialogue facilitation. Facilitators provided demographic information prior to the start of the groups, as well as a ranking of their preference for groups they would like to facilitate. The instructor of the course then assigned facilitators to their groups, taking into account preferences and ensuring that each group was facilitated by one person identifying as a member of the privileged social group and one person identifying as a member of the marginalized social group. As part of their own course, facilitators were trained in group facilitation methods and concepts important to IGD. Each facilitator was also provided with suggestions for topics, readings, and activities, but was also able to make their own choices on the plans for the groups.

There were a total of 35 group facilitators. Some facilitators led multiple groups across the years: three facilitators were leaders three times each and seven facilitators were leaders twice.

Measures

Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988).

We examined the emotions of participants after each session using the PANAS. The PANAS is a 20-item, self-report measure that allows participants to numerically value each of ten positive and ten negative emotions. Some positive emotions include excited, interested, and attentive while some negative emotions include afraid, hostile, and upset. This measure allows participants to provide a numerical value indicating how strongly they feel each emotion on a scale of 1 (*not at all*) to 5 (*extremely*). For this study, we asked participants to rate each of the emotions for the most recent IGD session. Positive and negative scores are calculated by

summing individual scores on each subscale. Watson et al. (1998) report reliabilities in student populations for positive affect ranging from .86 to .90 and for negative affect ranging from .84 to .87. In the present study, reliabilities were .91 for positive affect and .87 for negative affect.

Scale of Ethnocultural Empathy (SEE; Wang et al., 2003). We used the SEE to examine levels of empathy in the participants. This measure was used to assess changes over time and was administered once prior to the start of the groups and once at the completion the groups after the final session. The SEE is a 31-item, self-report measure that assesses empathy toward others (Wang et al., 2003). Participants are asked to assess each item as it describes them on a scale from 1 (*Strongly disagree that it describes me*) to 6 (*Strongly agree that it describes me*).

There are four subscales of the SEE: empathic feeling and expression (EFE), empathic perspective taking (EPT), acceptance of cultural differences (ACD), and empathic awareness (EA). EFE has items about communication of prejudiced attitudes and affective responses to emotions of people who are different from the respondent. Sample items in the EFE subscale include: “I feel supportive of people of other racial and ethnic groups, if I think they are being taken advantage of,” and “I share the anger of those who face injustice because of their racial and ethnic backgrounds.” EPT includes items that assess the effort the respondent exerts to understand experiences and emotions of people from diverse backgrounds. Sample items in the EPT subscale include “I can relate to the frustration that some people feel about having fewer opportunities due to their racial or ethnic backgrounds,” and “It is easy for me to understand what it would feel like to be a person of another racial or ethnic background other than my own.” Items about understanding and accepting cultural traditions and customs of diverse others are included in the ACD subscale. Items in the ACD subscale include reverse scored items, “I feel

annoyed when people do not speak standard English,” and “I do not understand why people want to keep their indigenous racial or ethnic cultural traditions instead of trying to fit into the mainstream.” Items regarding awareness and knowledge about the diverse experiences of others are included in EA. Items in the EA subscale include “I recognize that the media often portrays people based on racial or ethnic stereotypes,” and “I am aware of institutional barriers (e.g. restricted opportunities for job promotion) that discriminate against racial or ethnic groups other than my own.”

Wang et al. (2003) found a .90 reliability coefficient for the EFE subscale, .79 for EPT, .75 for ACD, and .74 for EA. In the current study, we found reliability ratings of .93, .78, .78, and .87 for each of the respective subscales. For this study, we used subscale means and standard deviations.

Group Climate Questionnaire Short-Form (GCQ-S; MacKenzie, 1983). We examined group climate using the GCQ-S, a 12-item instrument that uses three subscales to assess participant’s perceptions of the group climate. For this study, participants evaluated how much each item on the instrument applied to the most recent session on a scale from 1 (*Not at all*) to 7 (*Extremely*). The first subscale is engaged, which assesses the closeness between group members and includes items like, “The members liked and cared about each other.” The second subscale is avoiding and examines the behaviors and attitudes of group members in an attempt to avoid the difficult aspects of the group. One sample item is, “The members avoided looking at important issues going on between themselves.” The third subscale is conflict, which examines relational friction between members. A sample item of this scale is, “The members were distant and withdrawn from each other.”

Previous studies on the GCQ-S have found strong reliability for all three subscales: .94 for engagement, .88 for conflict, and .92 for avoidance (Kivlighan & Goldfine, 1991). In the current study, reliabilities for engaged, conflict, and avoiding subscales were .76, .81, and .33 respectively.

Procedure

Students participated in the groups as a required part of their Multicultural Psychology course. Groups started halfway through the semester and continued for eight weeks. Groups met once weekly for one hour and fifteen minutes. Group members were emailed a link to surveys prior to the dialogue groups beginning and at the completion of the program. They were also given a link to complete surveys after each weekly session. Participants included in this study completed both the assessment before beginning the dialogues and the assessment after the program ended. Participants also needed to complete at least one assessment after the completion of a weekly session. They had eight total opportunities to complete session assessments, (the actual number of session-level assessments ranged from 2-8, $M=6.92$, $SD=1.34$).

CHAPTER IV: RESULTS

We examined our data set for missing data at the item-level and did not find any due to the construction of the online survey, which required responses to all items except demographic questions. Ninety-eight (48.51%) of the 202 group members provided informed consent to participate *and* completed both the pre- and post-dialogue surveys. We screened the pre- and post-dialogue data provided by these 98 participants in terms of the amount of time taken to complete the surveys, and removed data from 9 participants who took fewer than 10 minutes to complete the survey, as we felt it was not likely that these participants took the time to read and provide accurate responses to all 100+ items on these surveys. Thus, the analyses below involve these 89 participants only (44.06% of the 202 group members in the IGD groups).

Means, standard deviations, and correlations for each of the variables are in Table 2. Positive affect was significantly, negatively correlated with conflict ($r = -.30, p < .01$) and was significantly, positively correlated with engaged, ($r = .62, p < .01$). Negative affect was significantly, positively correlated with conflict ($r = .46, p < .01$). Conflict was significantly, negatively correlated with engaged, ($r = -.32, p < .01$).

Because this study involved nested data (i.e., sessions were nested within individual group members, who were nested within groups), we used hierarchical linear modeling (HLM, Raudenbush & Bryk, 2002), which takes into account the non-independence of group data (Miles & Paquin, 2014), to analyze our data. First, in order to partition the variance in the group climate variables, our session outcomes, we ran three unconditional three-level (session, group member, and group) HLM analyses (Raudenbush & Bryk, 2002), one for each of the three subscales of the GCQ-S. With regard to Engaged, 56.25% of the variance was at the session-level, 35.42% was at the member level, and 8.33% was at the group level. With regard to Conflict, 71.72% of the

variance was at the session-level, 23.23% was at the member level, and 6.06% was at the group level. With regard to Avoidance, 79.44% of the variance was at the session-level, 18.69% was at the member level, and 1.87% was at the group level. Next, in order to partition the variance in our pre/post-dialogue outcomes, we ran four unconditional three level (test administration [pre- or post-], group member, and group) HLM analyses. With regard to EPT, 31.40% of the variance was at the test-administration-level (pre- or post-assessment), 63.95% was at the member level, and 5.65% was at the group level. With regard to EFE, 21.43% of the variance was at the test-administration-level, 78.57% was at the member level, and $< .05\%$ was at the group level. With regard to ACD, 29.63% of the variance was at the test-administration-level, 65.43% was at the member level, and 5.94% was at the group level. With regard to EA, 30.49% of the variance was at the session-level, 68.29% was at the member level, and $< .05\%$ was at the group level.

Next, we conducted nine sets of HLM analyses to test our hypotheses, exploring the relationships between: (a) emotional similarity and time, (b), emotional similarity and group climate over time, and (c) emotional similarity and ethnocultural empathy. In order to understand the relationship between emotional similarity and time, we conducted two sets of HLM analyses: one assessing positive similarity and another assessing negative similarity using the standard deviations of the respective PANAS subscales to understand change across each of the eight sessions. To assess emotional similarity and the relationship to group climate over time, we conducted six different sets of HLM analyses. We assessed each subscale of the GCQ-S in relationship to both positive and negative similarity, reviewing change over the eight sessions. Lastly, to understand the relationship between emotional similarity and ethnocultural empathy over time, we conducted one HLM analysis combining positive and negative similarity

to examine the relationship to the EPT subscale, as this was the only SEE subscale with a significant change over time.

Emotional Similarity Over Time

In order to examine our hypothesis that group members' experiences of positive and negative emotions within a session would converge (i.e., become more similar over time within a group), we conducted two separate two-level (session and group) growth curve analyses using HLM (Raudenbush & Bryk, 2002), one each with the session-level group standard deviations of the positive and negative affect as the dependent variable. In each of these analyses, session number was entered (grand mean centered) as the Level 1 predictor. There were no Level 2 predictors. For example, the two-level linear model used for examining similarity (*SD*) in positive affect across sessions is shown below (the two-level model for similarity in negative affect was identical, with the exception of the dependent variable). Because there is no "Session 0," session was grand-mean centered.

The Level 1 (session-level) model examining positive affect across sessions was:

$$Y_{tj} = \pi_{0j} + \pi_{1j}(\text{SESSION}_{tj}) + e_{tj}$$

where Y_{tj} is the standard deviation of positive affect for Group j at Session t , π_{0j} is the expected standard deviation of positive affect at the midpoint in the study, π_{1j} is the linear rate of change in Group j 's positive affect, and e_{tj} is session-level error.

The Level 2 (group-level) model was:

$$\pi_{0j} = \beta_{00} + r_{0j}$$

$$\pi_{1j} = \beta_{10} + r_{1j}$$

where β_{00} is the overall mean level of standard deviation of positive affect, β_{10} is the overall mean linear change in standard deviation of positive affect, and r_{0j} and r_{1j} represent group-level error.

Gamma coefficients, standard errors, t-ratios, and p-values for the growth curve analyses are provided in Table 2. Neither the linear slope term for positive affect nor the slope term for negative affect were significant.

Emotion and Group Climate

To examine whether a group's mean level of positive and negative emotions and/or the within group emotional similarity related to the group climate in a session, we conducted three additional two-level (session and group) HLM analyses – one with each of the group climate subscales (engaged, avoiding, and conflict) serving as the dependent variable – with session-level group means and standard deviations of positive and negative emotions as Level 1 predictors. For example, the two-level model used for examining whether the group means and standard deviations of positive and negative affect predicted group members' ratings of engaged is shown below (the models for avoiding and conflict were identical, with the exception of the dependent variables). Predictor variables were grand-mean centered. The Level 1 (session level) model for engaged was:

$$Y_{tj} = \pi_{0j} + \pi_{1j}(\text{POS_}M_{tj}) + \pi_{2j}(\text{POS_}SD_{tj}) + \pi_{3j}(\text{NEG_}M_{tj}) + \pi_{4j}(\text{NEG_}SD_{tj}) + e_{tj}$$

where Y_{tj} is Group j 's mean engaged score at Session t , π_{0j} is the expected mean engaged score at Session t for the average group, π_{1j} is Group j 's linear rate of change in mean engaged by mean positive emotion, $\text{POS_}M_{tj}$ is the mean positive affect score for Group j at Session t , π_{2j} is Group j 's linear rate of change in mean engaged by the standard deviation in positive emotion, $\text{POS_}SD_{tj}$ is the standard deviation of positive emotion for Group j at Session t , π_{3j} is Group j 's

linear rate of change in mean engaged by mean negative emotion, NEG_M_{tj} is the mean negative emotion score for Group j at Session t , π_{4j} is Group j 's linear rate of change in mean engaged by the standard deviation in negative emotion, NEG_SD_{tj} is the standard deviation of negative emotion for Group j at Session t , and e_{tj} represents the session level error. The Level 2 (group level) model for negative emotion across sessions was:

$$\pi_{0j} = \beta_{00} + r_{0j}$$

$$\pi_{1j} = \beta_{10} + r_{1j}$$

$$\pi_{2j} = \beta_{20} + r_{2j}$$

$$\pi_{3j} = \beta_{30} + r_{3j}$$

$$\pi_{4j} = \beta_{40} + r_{4j}$$

where β_{00} is the overall mean level of Engaged, β_{10} is the overall mean linear rate of change in mean positive emotion, β_{20} is the overall mean linear rate of change in the standard deviation of positive emotion, β_{30} is the overall mean linear rate of change in mean negative emotion, β_{40} is the overall mean linear rate of change in the standard deviation of negative emotion, and r_{0j} , r_{1j} , r_{2j} , r_{3j} , and r_{4j} are group level error terms. The models for conflict and avoidance were identical, with the exception of the dependent variables.

Gamma coefficients, standard errors, t -ratios, and p -values are listed in Table 3. With regard to the analysis predicting engaged, the linear slope term corresponding to mean positive emotion was significant ($\gamma = .06$, $p < .01$). This suggests that as the mean level of positive emotion within a group increased, so did perceptions of the climate being engaging. The linear slope terms corresponding to the standard deviation of positive emotion, mean negative emotion, and the standard deviation of negative emotion were all not significant. With regard to the analysis predicting avoiding, the linear slope term corresponding to mean level of negative

emotion was significant ($\gamma = .08, p < .01$). This suggests that as the mean level of negative emotion within a group increased, so did perceptions of the group climate being characterized as avoiding. The linear slope terms corresponding to the mean level of positive emotion, the standard deviation of positive emotion, and the standard deviation of negative emotion were all not significant. Finally, with regard to the analysis predicting conflict, the slope term corresponding to the mean level of negative emotions was significant, ($\gamma = .11, p < .01$). Thus, as mean level of negative emotion increased, so did perceptions of the group climate being characterized by conflict. The linear slope terms corresponding to the standard deviations of positive and negative affect were not significant.

Pre-to-Post-Dialogue Ethnocultural Empathy

To examine whether scores on the four subscales of the Scale of Ethnocultural Empathy (i.e., ACD, EA, EFE, and EPT; Wang et al., 2003) significantly changed from pre-to-post dialogue, we conducted four paired samples (pre- and post-dialogue) *t*-tests. Means, standard deviations, *t*-values, and *p*-values are included in Table 4. Of the four subscales of the SEE, only the *t*-test of the pre-to-post EPT was significant, $t(88) = -2.93, p < .01$.

Next, given the nested nature of the data, we also ran four three-level (within individual, individual, and group) analyses in which survey administration (pre- and post-dialogue, coded as 0 and 1, respectively) served as a Level 1 predictor. There were no Level 2 or Level 3 predictors. The three level model for predicting ACD by administration (pre- or post-) is below. (The models were identical for the EA, EFE, and EPT, with the exception of the dependent variables). The Level 1 model was:

$$Y_{aij} = \pi_{0ij} + \pi_{1ij}(\text{ADMIN}) + e_{aij}$$

where Y_{aij} is the ACD score for at Administration a , for Individual i , in Group j ; π_{0ij} is the expected ACD score at the first administration, π_{1ij} is the linear change in ACD score by administration, ADMIN is administration time (pre- or post-), and e_{aij} is error at the survey administration level. The Level 2 model was:

$$\pi_{0j} = \beta_{00} + r_{0j}$$

$$\pi_{1j} = \beta_{10}$$

where β_{00} is the overall mean level of ACD, β_{10} is the overall mean linear rate of change in mean ACD by Administration, and r_{0j} is group level error. Consistent with the results of the t -tests, the slope for administration time was only significant for EPT ($\gamma = .22, p < .01$). Given that we only found a significant difference in EPT from pre- to post-dialogue, this is the only SEE variable that we examined in our final analysis looking at the relationship between positive and negative emotions and outcomes.

Emotion and Empathic Perspective Taking

To examine whether mean levels and similarity (SD) in positive and negative emotions related to changes in group members' EPT from pre- to post-dialogue, we conducted one additional two level (individual and group) HLM analysis in which the difference between post- and pre-dialogue EPT served as the dependent variable, there were no Level 1 predictors, and group means and standard deviations of positive and negative emotions (across sessions) were entered as Level 2 predictors. The Level 1 (individual) model for EPT was:

$$Y_{ij} = \pi_{0j} + e_{ij}$$

where Y_{ij} is the difference between post- and pre-dialogue EPT for Individual i in Group j , π_{0j} is the expected value of the difference between post- and pre-dialogue EPT for the average individual, and e_{ij} represents individual level error.

The Level 2 (group) model for EPT was:

$$\pi_{0j} = \beta_{00} + \beta_{01}(\text{POS_M}_{ij}) + \beta_{02}(\text{POS_SD}_{ij}) + \beta_{03}(\text{NEG_M}_{ij}) + \beta_{04}(\text{NEG_SD}_{ij}) + r_{0j}$$

$$\pi_{1j} = \beta_{10} + r_{1j}$$

where β_{00} is the overall mean pre-dialogue EPT score, β_{01} is the linear rate of change in the difference between post- and pre-dialogue EPT by group mean level of positive emotions, POS_M_j is the mean of positive emotion level (across sessions) for Group j , β_{02} is the linear rate of change in the difference between post- and pre-dialogue EPT by the group mean standard deviation in positive emotion, POS_SD_{ij} is the mean standard deviation in positive emotion for Group j , β_{03} is the linear rate of change in the difference between post- and pre-dialogue EPT by group mean level of negative emotion, NEG_M_{ij} is the mean negative emotion level (across sessions) for Group j , β_{04} is the linear rate of change in the difference between post- and pre-dialogue EPT by group mean standard deviation in negative emotion, NEG_SD_{ij} is the mean standard deviation in negative emotion for Group j , β_{10} is the overall mean linear rate of change in the difference between post- and pre-dialogue EPT by pre-dialogue EPT score, and r_{0j} and r_{1j} are group level error.

Table 5 provides the gamma coefficients, standard errors, t-ratios, and p-values for the HLM analysis examining the relationships between mean levels and similarity in positive and negative emotion and the difference between post- and pre-dialogue EPT scores. No significant relationships were found.

CHAPTER V: DISCUSSION

One major goal of IGD is the building of relationships and empathy across groups (Stephan & Stephan, 2001; Zúñiga et al., 2007). Though there is ample research indicating that IGD is an effective multicultural intervention (Dessel & Rogge, 2008; Griffin, Brown, & Warren, 2012; Gurin et al., 1999, 2002, 2004; Sorenson et al., 2009; Zúñiga et al., 2007), less research exists about *how* the programs work. One reason that we know so little about how this intervention is effective is the lack of research on session-level process and outcomes (Gurin et al., 1999, 2004; Muller & Miles, 2016). Emotion is a critical component in the IGD process, however the affective component of IGD has been given little attention in the research thus far (Khuri, 2004). For these reasons, the focus of the current study was to examine the affective experience of IGD group members at the session-level, to examine if and how affect is related to the outcomes.

Research on emotional convergence suggests that individuals who share social membership and work towards common goals (Bartel & Saavedra, 2000; Magee & Tiedens, 2006) can have mood convergence. Therefore, we predicted that emotions within groups would converge over time. Similarities between team members, including similarities in cognitions (Rentsch & Woehrer, 2004) are predictive of better outcomes, and emotions have been linked to group climate factors like engagement and conflict (Barsade, 2002; Budman et al., 1989; Magee & Tiedens, 2006; Mullen & Copper, 1994; Tschuschke & Dies, 1994), so we hypothesized that emotional similarity would predict greater engagement and decreased avoidance and conflict. Lastly, previous research has demonstrated a relationship between emotional contagion and other group similarities to group outcomes (Barsade, 2002; Bartel & Saavedra, 2000; Benlian, 2013; Duffy & Shaw, 2000; Gibson et al., 2004; Magee & Tiedens, 2006), so we expected that

emotional similarity among group members would be related to positive outcomes, specifically greater empathic perspective taking.

Inconsistent with our first hypothesis, we did not find that group members' emotions converged across time. In this study, we used the PANAS (Watson et al., 1988) to assess emotions of group members after each session. The PANAS requires respondents to assess ten positive emotions (e.g., enthusiastic, inspired, determined) and ten negative emotions (e.g., distressed, irritable, ashamed). To score this instrument, a mean is calculated for the positive emotion subscale and for the negative emotion subscale. For this study, we examined both mean PANAS scores across groups and similarities in PANAS scores within groups, operationalized as the standard deviations for each subscale score. Group members' overall experiences of positive and negative emotions did not converge over time. Specifically, individual group members' similarity in emotions did not increase over the course of the eight weeks. There were changes in individual emotional experiences across time, though. We did find that negative affect decreased for individuals linearly over time, suggesting that the longer group members were involved in the IGD, the less they reported negative emotions.

Previous research on emotional convergence suggests that individuals who spend increasing amounts of times with a group, particularly a group with shared goals among members who perceive similarities between themselves and other group members, will have an increased level of emotional convergence (Bartel & Saavedra, 2000; Totterdell et al., 2004). Previous literature also demonstrates that shared emotional experiences within a group are related to group outcomes (Barsade, 2002; Bartel & Saavedra, 2000; Duffy & Shaw, 2000; Magee & Tiedens, 2006). In the current study, we did not find increased similarity in positive and negative emotions over time within groups. It is possible that group members did not have

enough time in the short (one hour and fifteen minute) sessions or across the eight weeks to perceive shared goals or did not perceive themselves to be similar to other members, and therefore group members did not demonstrate emotional convergence. There are several different mechanisms by which emotional convergence can occur. Humans tend to naturally mimic the facial expressions, vocalizations, and body movements of people they are with (Bartel & Saavedra, 2000; Hatfield et al., 1994). People typically also display specific surface level emotions with the goal of achieving approval from other group members (Kelly & Barsade, 2001). Individuals will sometimes also use social comparison to determine their own emotional experience, by evaluating the expressions of others and then engaging in self-assessment (Bartel & Saavedra, 2000). It is possible, then, that individuals in IGD, for some reason, are not displaying emotional expressions, particularly because they are not working to gain approval from other group members or to achieve other goals for which emotional expressiveness is utilized. Without these surface display cues, it may be more difficult for individuals to mimic the facial expressions, vocalizations, or body movements of others. Future research may examine whether participants in IGD demonstrate emotional expressions or cues, especially through facial expressions, change in vocalizations, and body movements.

As these groups are only one hour and fifteen minutes, it is also possible that this length of time is too long to be assessed by the PANAS. Within one session, group members may feel varying levels of affect throughout the group and their perceived levels of each emotion may vary across time. In this study, group members only assessed their emotions after the conclusion of each session. Group members may have focused on or determined that different parts of the session were significant, leading to variance in emotional experiences. Previous recommendations for improving intergroup relations indicated that facilitators could aid group

members in becoming aware of their negative emotions (Khuri, 2004). Group members may not be identifying the exact emotions they experienced, or may find that the correct emotions are not listed on the measure used. Further research may investigate whether groups that focus on increasing affective awareness also demonstrate increased emotional convergence. Likewise, the specific emotions on the PANAS assessment may not have provided the best understanding of emotional experiences for all group members, and it may be beneficial to also allow group members to write in their own emotion words.

With regard to our other hypotheses, we did not find that group climate factors of engagement, conflict, and avoidance were connected to increasing emotional similarity over time. However, we did find significant changes in group climate factors and some changes that related to the mean positive or negative emotions of the group members. For example, engagement increased over time, meaning group members perceived increasing closeness between themselves and others in the group. This is consistent with previous research on group climate in IGD (e.g., Miles & Kivlighan, 2008). According to group climate research, successful groups have higher levels of engagement and lower levels of avoidance and conflict (MacKenzie et al., 1987). As group members become more comfortable with one another, their interest and investment in the group increases and their comfort in addressing difficult issues in the group also increases (Yalom, 1995). These findings are also consistent with the four-stage, critical-dialogic model of IGD (Nagda & Gurin, 2013; Zúñiga et al., 2007). Important aspects of the critical-dialogic model are for group members to build relationships and avoid debate, and the four-stage model begins with development of relationships and a safe environment. This safe environment and the development of relationships should foster engagement and provide a way to reduce avoidance. This may be why avoidance decreased over time in the current study. This

means that as the group continued over eight weeks, group members did not attempt to avoid difficult conversations or topics as much. Group facilitators can focus on making group members feel connected with both the group topic and the group members to increase engagement, and may consider strategies for reducing avoidance.

Though emotional convergence was not evident within these groups, the emotional experience of group members was related to group climate outcomes. Specifically, the mean level of positive emotion was predictive of engagement. Greater mean positive emotion was related to greater reports of engagement, so group members who experienced positive affect also reported greater closeness with group members. Shared affect research indicates that group members who share positive emotions often feel more comfortable disclosing personal information, which also increases the feelings of engagement (Budman et al., 1989; Tschuschke & Dies, 1994). It is possible in the current study that with more time to relate to other group members, positive emotions may have also converged, as predicted. While group members' emotions did not converge, we do know that greater positive emotion within a group is typically related to greater cohesion (Magee & Tiedens, 2006; Mullen & Copper, 1994). As cohesion is similar to engagement, it is not surprising, then, that increased positive emotions in the group were related to engagement. Groups that express greater unity are also more cohesive, and these groups tend to have group members who are more likely to disclose their emotional experiences (Barsade, 2002). Knowing this information and the goals of the four-stage model of IGD, group facilitators might intentionally try to increase positive emotions within the beginning stages of the group in order to create bonding between group members and to develop the relationships between group members prior to discussing more difficult topics. Facilitators may also note when group members seem to be experiencing negative emotions and find ways to draw

attention to these emotions and process them as a group. Future research is needed to determine whether processing the emotional experiences of group members will alleviate the decrease in engagement that occurs with greater negative emotions.

The mean level of negative emotion was negatively related to avoidance, which demonstrates that group members were more likely to engage in avoidance behaviors when they reported negative affect. Negative emotion also decreased linearly across time, so we know that group members reported fewer negative emotions as the group progressed, and therefore also decreased avoidance behaviors. This is consistent with some group literature, which found a linear pattern of group climate development (Phipps & Zastowny, 1988; Sexton, 1996). Finally, we did find that the mean of negative affect was predictive of conflict within the groups. As negative affect increased, so did conflict within groups. As the GCQ-S (MacKenzie, 1983) subscale for conflict measures interpersonal conflict (e.g. “There was friction and anger between the members,”) we would expect that negative affect items (e.g. irritable, distressed, nervous) would be related to group conflict. We know that IGD does involve conflict and negative emotion, as group members work together to dialogue about “hot topics” related to social identities and social systems. Both positive and negative emotions can impact group climate factors, and both may benefit the process of IGD. Future research should focus on the implications of this finding, and how facilitators can provide support and structure that will allow positive changes in group climate (greater engagement and lower avoidance and conflict) in the face of the inevitable negative emotions.

In terms of overall outcomes, we did find that changes over time in EPT were significant, indicating that group members demonstrated greater empathic perspective taking after they had been involved in IGD than before the groups. However, we did not find any significant

relationships between overall means or standard deviations in positive or negative emotions and changes in EPT from pre- to post-dialogue. It may be that experiences of positive and negative emotion are more meaningful in predicting session level outcomes, as shown with our findings related to emotion and group climate. This is not to say that emotions are not important in IGD. The IGD literature highlights the importance of emotion (Khuri, 2004) and previous research suggests that group climate relates to overall group member outcomes (Muller & Miles, 2016). Future research might examine whether group climate is a mediator of the relationship between emotion and overall outcomes. An increased understanding of the relationships between individual's emotional experiences within IGD, session level outcomes, and overall outcomes may help facilitators determine what to focus their attention on in order to achieve particular outcomes.

Strengths and Limitations

A strength of the current study is that it utilizes previous research from other areas of psychology, primarily industrial-organizational (I-O) psychology and emotion research (Barsade, 2002; Bartel & Saavedra, 2000; Duffy & Shaw, 2000; Hatfield et al., 1994; Kelly & Barsade, 2001; Magee & Tiedens, 2006; Niedenthal & Brauer, 2012; Totterdell et al., 1998, 2004), in the context of IGD research. Research in the area of I-O psychology focuses on the importance of groups and teams in the workplace. Members in process groups, like IGD, work towards common goals and create a group dynamic that can be comparable to work teams. In addition, affective experiences are a critical part of IGD (Stephan & Stephan, 2001), but it is an under researched area (Khuri, 2004). By increasing the attention that we pay to the affective experiences of participants, we can better understand how IGD works and why it is an effective intervention.

Another strength of this study is that group climate and affect were both assessed at the session level. Much of the previous research on IGD has focused on whether IGD is effective through pre- and post-dialogue (Dessel & Rogge, 2008; Griffin et al., 2012; Gurin et al., 1999, 2002, 2004; Sorenson et al., 2009; Zúñiga et al., 2007). Less research has examined the processes that contribute to outcomes at the session level. A session-level understanding of the processes involved in IGD as the four-stage model (Zúñiga et al., 2007) unfolds provides facilitators useful information as to what aspects of the groups can help achieve intended outcomes.

While the study has strengths, there are some limitations. This intervention is designed to allow students to meet weekly for eight sessions. While this does provide space for group members to develop relationships and become engaged in the material, it also may not be enough time for emotional convergence among participants. We also only assessed the emotional convergence of whole groups, looking to see whether all members of one group converged their affect. Previous affective research suggests that there are differences in ability to converge emotions (Bartel & Saavedra, 2000; Totterdell et al., 1998), and that minority group members typically have greater emotional convergence than majority group members and that people are more likely to converge their emotions with people they perceive as ingroup members (Weisbuch & Ambady, 2008). For this reason, future research may consider differences in emotional convergence for target group members and majority group members instead of considering all members of the same group.

Finally, the measure used to assess affect in this study, the PANAS, may have also presented some limitations to group member reporting. The PANAS asks respondents to provide values for 20 different emotions: ten positive and ten negative. It is possible that the emotions

listed on this assessment did not provide an accurate picture of group members' experiences.

Group members also provided a value for each emotion once after each session. As many group sessions may cause a group member to experience a variety of emotions, it is possible that group members were unable to accurately assess all of their experiences with one assessment.

Implications for Practice and Research

Practice. This study provides insights for facilitators on how they might run their groups and interact with members. Specifically, facilitators can expect that IGD will follow a predicted pattern of group climate (Yalom, 1995), with avoidance decreasing and engagement increasing across time. As the mean of positive emotions predicted engagement, it might be useful for facilitators to highlight positive emotions being experienced by group members in the forming stage (Tuckman & Jensen, 1977) so as to establish comfort with the group topics and members, which can aid in development of engagement. In the current study, negative affect also decreased across time, and negative emotions were related to avoidance within the group. Facilitators might pay attention to the avoidance of group members or the negative affect in order to help the group process difficult topics without avoiding the topic. As emotional convergence was not identified within these groups, facilitators may consider the unique emotional experiences of each group member. It is likely that most group members are *not* experiencing similar emotions, so it is critical to attend to the differences of emotions being experienced.

Research. This study illustrates the great need for continued research with emotional experiences of IGD members. While we know that emotional experiences in IGD are a critical aspect of the group (Stephan & Stephan, 2001), they have not been well researched (Khuri, 2004). Some previous research with emotional convergence suggests that people are more likely

to converge with individuals they perceive to be in-group members (Weisbuch & Ambady, 2008). In this study, we considered an in-group to be any group members discussing the same topic with the same facilitators. However, each group is comprised of nearly equal parts of the target group and majority group members, and it is possible that there is more emotional convergence within these more specific, narrow in-groups (target and majority) than within the greater IGD group.

One limitation of this study is the measurement strategies used may not have adequately assessed our target variables. Emotional convergence literature suggests that convergence is sometimes a product of mimicry which can be measured through observation and tracking of body movements, vocalizations, and facial expressions (Bartel & Saavedra, 2000; Hatfield et al., 1994). Future research may consider measuring these more external cues of mimicry to determine whether group members are engaged in mimicking behaviors at all. Additionally, we assessed emotional experiences by utilizing a self-report measure of twenty total emotional experiences (PANAS; Watson et al., 1988). Though the groups were only seventy-five minutes, it is possible that group members found it difficult to accurately assess the type and strength of each emotion experienced in this time period, and group members were limited to the twenty emotions provided. In the future, alternative ways of assessing emotion may be necessary to gain a clearer picture of affective experience of group members.

This study provides us with a great deal of information that can be useful for future facilitators of IGD. We know that positive and negative emotions were predictive of different aspects of group climate. Facilitators may use this information to help attend to specific emotions in the group in the hopes of changing aspects of group climate. For example, group facilitators may attend to and process more negative emotions in the hopes that transparent

discussion of these emotions will help avoid decreases in engagement. Future research may help us understand whether facilitator assessment of and attention to emotions is beneficial in changing group dynamics. Lastly, it is evident that negative emotions decreased across time in the groups, despite the fact that topics in the group do become increasingly difficult. Future research may consider whether this decrease in negative emotion is related to increases in other group member experiences.

LIST OF REFERENCES

- Allport, G. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Banks, J. A. (2002). *Introduction to multicultural education* (3rd ed.). Boston: Allyn & Bacon.
- Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47, 644-675. doi: 10.2307/3094912
- Bartel, C. A., & Saavedra, R. (2000). The collective construction of work group moods. *Administrative Science Quarterly*, 45, 197-231. doi:10.2307/2667070
- Bednar, R., & Kaul, T. (1994). Experiential group research: Can the canon fire? In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change* (4th ed., pp. 631-663). New York, NY: Wiley.
- Benlian, A. (2013). Are we aligned...enough? The effects of perceptual congruence between service teams and their leaders on team performance. *Journal of Service Research*, 17, 212-228. doi: 10.1177/1094670513516673
- Bonito, J. A. (2004). Shared cognition and participation in small groups: Similarity of member prototypes. *Communication Research*, 31, 704-730. doi:10.1177/0093650204269406
- Brouwer, M.A.R., & Boros, S. (2010). The influence of intergroup contact and ethnocultural empathy on employees' attitudes toward diversity. *Cognition, Brain, Behavior*, 14, 243-260.
- Budman, S. H., Soldz, S., Demby, A., Feldstein, M., Springer, T., & Davis, M. S. (1989). Cohesion, alliance, and outcome in group psychotherapy. *Psychiatry*, 52, 339-350. doi: 10.1521/00332747.1989.11024456
- Burlingame, G. M., Fuhrman, A., & Johnson, J. E. (2001). Cohesion in group psychotherapy. *Psychotherapy* 38. 373-379. doi: 10.1037/0033-3024.38.373

- Campbell, D. T. (1958). Common fate, similarity, and other indices of the status of aggregates of persons as social entities. *Behavioral Science*, 3, 14-25. doi: 10.1002/bs.3830030103
- Cannon-Bowers, J. A., Salas, E., & Converse, S. (1993). Shared mental models in expert team decision making. In N. J. Castellan (Ed.), *Individual and group decision making* (pp. 221-246). Hillsdale, N.J.: Erlbaum.
- Crouch, E., Bloch, S., & Wanlass, J. (1994). Therapeutic factors: Interpersonal and intrapersonal mechanisms. In A. Fuhrman & G. M. Burlingame (Eds.), *Handbook of group psychotherapy: An empirical and clinical synthesis* (pp. 269-315). New York: Wiley.
- Cundiff, N.L., Nadler, J.T., & Swan, A. (2009). The influence of cultural empathy and gender on perceptions of diversity programs. *Journal of Leadership Organizational Studies*, 16, 97-110. doi: 10.1177/1548051809334193
- Dessel, A., & Rogge, M. E. (2008). Evaluation of intergroup dialogue: A review of the empirical literature. *Conflict Resolution Quarterly*, 26, 199-238. doi: 10.1002/crq.230
- Dickoff, H., & Lakin, M. (1963). Patients' views of group psychotherapy: Retrospections and interpretations. *International Journal of Group Psychotherapy*, 13, 61-73. doi: 10.1080/00207284.1963.11642630
- Doherty, R. W. (1997). The emotional contagion scale: A measure of individual differences. *Journal of Nonverbal Behavior*, 21, 131-154. doi: 1024956003661
- Duffy, M. K., & Shaw, J. D. (2000). The Salieri syndrome: Consequences of envy in groups. *Small Group Research*, 31, 3-23. doi: 10.1037/0021-9010.75.6.698
- Flick, D. (1998). From debate to dialogue: using the understanding process to transform our conversations. Boulder, Colorado: Orchid.

- Freire, P. (1970). *The pedagogy of the oppressed*. New York: Continuum International Publishing.
- Gibson, C. B., Cooper, C. D., & Conger, J. A. (2009). Do you see what we see? The complex effects of perceptual distance between leaders and teams. *Journal of Applied Psychology* 94, 62-76. doi: 10.1037/a0013073
- Griffin, S. R., Brown, M., & Warren, N. M. (2012). Critical education in high schools: The promise and challenges of intergroup dialogue. *Equity & Excellence in Education*, 45, 159-180. doi: 10.1080/10665684.2012.641868
- Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review* 72, 330-366. doi: 10.17763/haer.72.3.01151785u134n051
- Gurin, P., Nagda, B. A., & Lopez, G. E. (2004). The benefits of diversity in education for democratic citizenship. *Journal of Social Issues*, 60, 17-34. doi: 10.1111/j.0022-4537.2004.00097.x
- Gurin, P., Nagda, B.A., & Zúñiga, X. (2013). *Dialogue across difference: Practice, theory, and research on intergroup dialogue*. New York: The Russell Sage Foundation.
- Gurin, P., Peng, T., Lopez, G. E., & Nagda, B. A. (1999). Context, identity and intergroup relation. In D. Prentice & D. Miller (Eds.), *Cultural divides: Understanding and overcoming group conflict* (pp. 133-170). New York: Russell Sage Foundation.
- Hardiman, R., & Jackson, B. W.(1992). Racial identity development: Understanding racial dynamics in college classrooms and on the campus. In M. Adams (Ed.), *Promoting diversity in college classrooms: Innovative responses for the curriculum, faculty, and*

- institutions*. New Directions for Teaching and Learning, no. 52. San Francisco: Jossey-Bass.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). Emotional contagion. New York: Cambridge University Press.
- Hatfield, J. D., & Huseman, R. C. (1982). Perceptual congruence about communication as related to satisfaction: Moderating effects of individual characteristics. *Academy of Management Journal* 25, 349-358. doi: 10.2307/255996
- Kapp, F. T., Gleser, G., & Brissenden, A. (1964). Group participation and self-perceived personality change. *Journal of Nervous and Mental Disease*, 139, 255-265. doi: 10.1097/00005053-1964090000-00006
- Kelly, J. R., & Barsade, S. G. (2001). Mood and emotions in small groups and work teams. *Organizational Behavior and Human Decision Processes*, 86, 99-130. doi: 10.1037/0021-9010.75.6.698
- Khuri, M.L. (2004). Working with emotion in educational intergroup dialogue. *International Journal of Intercultural Relations*, 28, 595-612. doi: 10.1016/j.ijintrel.2005.01.012
- Kivligan, D.M., & Goldfine, D.C. (1991). Endorsement of therapeutic factors as a function of stage of group development and participant interpersonal attitudes. *Journal of Counseling Psychology*, 38, 150-158. doi: 10.1037/0022-0167.38.2.150
- Kivlighan, D. M., Jr., & Lilly, R. L. (1997). Developmental changes in group climate as they relate to therapeutic gain. *Group Dynamics: Theory, Research, and Practice*, 3, 208-221. doi: 10.1037/1089-2699.1.3.208

- Kivlighan, D. M., Jr., & Tarrant, J. M. (2001). Does group climate mediate the group leadership-group member outcome relationship? A test of Yalom's hypotheses about leadership priorities. *Group Dynamics*, 5, 220-234. doi: 10.1037/108902699.5.3.220
- MacKenzie, K. R. (1981). Measurement of group climate. *International Journal of Group Psychotherapy*, 31, 287-295. doi: 10.1080/00207284.1981.11491708
- MacKenzie, K. R. (1983). The clinical application of a group climate measure. In R.R. Dies & K. R. MacKenzie (Eds.), *Advances in group psychotherapy: Integrating research and practice* (pp. 159-170). New York: International Universities Press.
- MacKenzie, K. R., Dies, R., Coché, E., Rutan, J. S., & Stone, W. N. (1987). An analysis of AGPA Institute groups. *International Journal of Group Psychotherapy*, 37, 55-74. doi: 10.1080/00207284.1987.11491041
- Magee, J. C., & Tiedens, L. Z. (2006). Emotional ties that bind: The roles of valence and consistency of group emotion in inferences of cohesiveness and common fate. *Personality and Social Psychology Bulletin*, 32, 1703-1715. doi: 10.1177/0146167206292094
- Mathiew, J. E., Heffner, T. S., Goodwin, G. F., Salas, E., & Cannon-Bowers, J. A. (2000). The influence of shared mental models on team process and performance. *Journal of Applied Psychology*, 85, 273-283. doi: 10.1037//0021-9010.85.2.273
- McClendon, D.T., & Burlingame, G.M. (2011). Group climate: Construct in search of clarity. In R.K. Conyne (Ed.), *The Oxford handbook of group counseling* (pp. 164-181). New York, New York: Oxford University Press.

- Miles, J. R., & Kivlighan, D. M., Jr., (2010). Co-leader similarity and group climate in group interventions: Testing the co-leadership, team cognition-team diversity model. *Group Dynamics: Theory, Research, and Practice*, 14, 114-122. doi:10.1037/a0017503
- Miles, J. R. & Kivlighan, D. M. Jr., (2008). Team cognition in group interventions: The relation between coleaders' shared mental models and group climate. *Group Dynamics: Theory Research, and Practice* 12, 191-209. doi: 10.1037/1089-2699.12.3.191
- Miles, J.R., Muller, J.T., Arnett, J.E., III, Bourn, J.R., Johnson, M.C., & Recabarren, D. (2015). Group member affect and session evaluations in intergroup dialogue. *Group Dynamics: Theory, Research, and Practice* 19, 225-242. doi: 10.1037/gdn0000032
- Miles, J.R., & Paquin, J.D. (2014). Best practices in group counseling and psychotherapy research. In J. Delucia-Waack, C. Kalodner, & M. Riva (Eds.), *The handbook of counseling and psychotherapy* (2nd ed.) (pp. 178-192). Thousand Oaks, CA: Sage.
- Miles, J.R., Paquin, J.D., & Kivlighan, D.M. (2011). Amount and consistency, two components of group norms: An actor-partner interdependence analysis of intimate behaviors in groups. *Group Dynamics: Theory, Research, and Practice*, 15, 326-342. doi:10.1037/a0024676
- Miller, D. A., Smith, E. R., & Mackie, D. M. (2004). Effects of intergroup contact and political predispositions on prejudice: Role of intergroup emotions. *Group Processes & Intergroup Relations*, 7, 221-237. doi:10.1177/1368430204046109
- Mullen, B., & Copper, C. (1994). The relation between group cohesiveness and performance: An integration. *Psychological Bulletin*, 115, 210-227. doi: 10.1037/0033-2909.115.2.210

- Muller, J.T., & Miles, J.R. (2016). Intergroup dialogue in undergraduate multicultural psychology education: Group climate development and outcomes. *Journal of Diversity in Higher Education*. Advance online publication. doi: 10.1037/a0040042
- Nagda, B.A., & Gurin, P. (2013). The practice of intergroup dialogue. In P. Gurin, B. A. Nagda, & X. E. Zúñiga (Eds.), *Dialogue across difference: Practice theory, and research on intergroup dialogue*, (pp. 32-73). New York: Russell Sage Foundation.
- Nagda, B. A., & Zúñiga, X. (2003). Fostering meaningful racial engagement through intergroup dialogues. *Group Processes & Intergroup Relations*, 6, 111-128. doi: 10.1177/1368430203006001015
- Niedenthal, P. M., & Brauer, M. (2012). Social functionality of human emotion. *Annual Review of Psychology*, 63, 259-285. doi: 10.1146/annurev.psych.121208.131605
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology*, 49, 65-85. doi: 10.1146/annurev.psych.49.1.65
- Pettigrew, T.F., & Tropp, L.R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90, 751-783. doi: 10.1037/0022-3514.90.5.751
- Pettigrew, T.F., Tropp, L.R., Wagner, U., & Christ, O. (2011). Recent advances in intergroup contact theory. *International Journal of Intercultural Relations*, 35, 271-280. doi: 10.1016/j.ijntrel.2011.03.001
- Phipps, L. B., & Zastowny, T. R. (1988). Leadership behavior, group climate and outcome in group psychotherapy: A study of outpatient psychotherapy groups. *Group*, 12, 157-171. doi: 10.1007/BF01456565
- Raudenbush, S. W. & Bryk, A. S. (2002). Hierarchical linear models: Applications and data analysis methods, 2nd ed. Newbury Park, CA: Sage.

- Rentsch, J. R., & Hall, R. J. (1994). Members of great teams think alike: A model of team effectiveness and schema similarity among team members. In M. M. Beyerlin & D. A. Johnson (Eds.), *Advances in interdisciplinary studies of work teams*, 1, (pp. 223-262). Greenwich, CT: JAI Press.
- Rentsch, J. R. & Klimoski, R. J. (2001). Why do “great minds” think alike? Antecedents of team member schema agreement. *Journal of Organizational Behavior*, 22, 107-120. doi: 10.1002/job.81
- Rentsch, J. R., & Woehr, D. R. (2004). Quantifying congruence in cognition: Social relations modeling and team member schema similarity. In E. Salas & S. M. Fiore (Eds.), *Team cognition: Understanding the factors that drive process and performance* (pp. 11-31). Washington, DC: American Psychological Association.
- Roether, H. A., & Peters, J. J. (1972). Cohesiveness and hostility in group psychotherapy. *American Journal of Psychiatry*, 128, 1014-1017. doi: 10.1176/ajp.128.8.1014
- Sexton, H. C. (1996). Exploring a psychotherapeutic change sequence: Relating process to interpersonal and posttreatment outcome. *Journal of Consulting and Clinical Psychology*, 61, 128-136. doi: 10.1037/0022-006X.61.1.128
- Sorenson, N., Nagda, B. A., Gurin, P., & Maxwell, K. E. (2009). Taking a “hands on” approach to diversity in higher education: A critical-dialogic model for effective intergroup interaction. *Analyses of Social Issues and Public Policy*, 9, 3-35. doi: 10.1111/j.1530-2415.2009.01193.x
- Stephan, W.G., & Stephan, C.W. (2001). *Improving intergroup relations*. Thousand Oaks, CA: Sage Publications.

- Totterdell, P., Wall, T., Holman, D., Diamond, H., & Epitropaki, O. (2004). Affect networks: A structural analysis of the relationship between work ties and job-related affect. *Journal of Applied Psychology, 89*, 854-867. doi: 10.1037/0021-9010.89.5.854
- Tschuschke, V., & Dies, R. R. (1994). Intensive analysis of therapeutic factors and outcome in long-term inpatient groups. *International Journal of Group Psychotherapy, 44*, 185-208. doi: 10.1080/00207284.1994.11490742
- Tuckman, B. W., & Jensen, M. A. (1977). Stages of small-group development revisited. *Group & Organization Studies, 2*, 419-427. doi: 10.1177/105960117700200404
- van Zomeren, M., Spears, R., & Leach, C. W. (2008). Exploring psychological mechanisms of collective action: Does relevance of group identity influence how people cope with collective disadvantage? *British Journal of Social Psychology, 47*, 353-372. doi: 10.1348/014466607X231091
- Wang, Y., Davidson, M.M., Yakushko, O.F., Savoy, H.B., Tan, J.A., & Bleier, J.K. (2003). The scale of ethnocultural empathy: Development, validation, and reliability. *Journal of Counseling Psychology, 50*(2), 221-234. doi: 10.1037/0022-0167.50.2.221
- Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS Scales. *Journal of Personality and Social Psychology, 54*, 1063-1070. doi: 0022-3514/88
- Weisbuch, M., & Ambady, N. (2008). Affective divergence: Automatic responses to others' emotions depend on group membership. *Journal of Personality and Social Psychology, 95*, 1063-1079. doi: 10.1037/a0011993
- Yalom, I. D. (1995). *The theory and practice of group psychotherapy* (4th ed.) New York: Basic Books.

Zúñiga, X. E., Nagda, B. A., Chesler, M. E., & Cytron-Walker, A. E. (2007). Intergroup dialogue in higher education: Meaningful learning about social justice. *ASHE Higher Education Report*, 32, 1-128.

Zúñiga, X., Nagda, B.A., & Sevig, T.D. (2002). Intergroup dialogues: An educational model for cultivating engagement across differences. *Equity and Excellence in Education*, 35, 7-17. doi: 10.1080/713845248

APPENDIX

Table 1.

Group Member Demographics

	Members (N=89)	
	<i>n</i>	%
Gender *		
Woman	70	78.65
Man	19	21.35
Transgdner	-	-
Race*		
White	71	79.78
Black/African American	9	10.11
Latino/a	6	6.74
Asian/Asian American	3	3.37
Middle Eastern/Arab	2	2.25
Multiracial	2	2.25
Native American/Alaskan Native	1	1.12
Sexual Orientation		
Heterosexual	84	94.38
Bisexual	2	2.25
Other	2	2.25
Gay	1	1.12
Lesbian	-	-
Asexual	-	-
Religion*		
Christian	53	59.55
Agnostic	13	14.61
Atheist	4	4.49
Jewish	2	2.25
Spiritual/Not religious	2	2.25
Muslim	2	2.25
Unitarian		
Universalist	2	2.25

Table 1 Continued

	Members (<i>N</i> =89)	
	<i>n</i>	%
None	1	1.12
Undecided	1	1.12
Socioeconomic status (2012-2013)		
Upper middle class	21	23.6
Middle class	18	20.22
Working class	9	10.11
Lower middle class	2	2.25
Upper class	1	1.12
Working class	-	-
Working poor	-	-
Other	-	-
Socioeconomic status (2014-2015)**		
Educational Level		
Senior	47	52.81
Junior	37	41.57
Graduate Student	2	2.25
Non-degree seeking	2	2.25
Sophomore	1	1.12

Note. *For gender, race, and religion, participants were allowed to select more than one option, if applicable (e.g., transgender and woman). Therefore *n*'s may not add to the same number as *n*.

**In 2014 and 2015, students were asked to identify their SES on a continuum from 0-10, with 10 being the "most money, the highest amount and quality of schooling, and the most respected jobs," and 0 being "the least amount of money, the lowest levels and quality of schooling, and the least respected jobs." For participants who responded to this question in these years (*n*=37, 1), *M*=5.92, *SD*=1.83.

Table 2.

Pearson Correlations Between Affect and Group Climate Means and Change in EPT

	<i>M</i>	<i>SD</i>	Negative Affect	Avoidance	Conflict	Engaged	EPT Change
Positive Affect	34.90	6.10	-0.14	0.04	-.30**	0.62**	-0.09
Negative Affect	14.77	3.41		0.14	0.46**	-0.13	-0.08
Avoidance	3.69	0.60			0.10	0.05	0.20
Conflict	1.97	0.63				-0.32**	-0.06
Engaged	5.14	0.72					-0.32
EPT Change	0.22	0.70					

**Correlation is significant at the 0.01 level (2-tailed).

Table 3.

Gamma Coefficients, Standard Errors, t-Ratios, Degrees of Freedom, and p-Values for Analyses of Positive and Negative Similarity Change Over Time

	Gamma Coefficient	Standard Error	t-Ratio	Degrees of Freedom	p-value
Positive Affect					
Intercept	7.01	.46	15.08	22	.00
Linear	-.01	.12	-.11	22	.91
Negative Affect					
Intercept	4.24	.43	9.93	22	.00
Linear	-.10	.08	-1.23	22	.23

Table 4.

Gamma Coefficients, Standard Errors, t-Ratios, and Degrees of Freedom for Analyses of the Relationship Between Affect and Group Climate

	Gamma Coefficient	Standard Error	t-Ratio	Degrees of Freedom	p-value
Engaged					
Intercept	5.12	.09	54.23	22	.00
Positive Affect <i>M</i>	.06	.01	6.36	22	.00
Positive Affect <i>SD</i>	-.01	.02	-.62	22	.54
Negative Affect <i>M</i>	-.04	.02	-1.76	22	.92
Negative Affect <i>SD</i>	.04	.03	1.30	22	.21
Conflict					
Intercept	1.95	.07	27.25	22	.00
Positive Affect <i>M</i>	-.02	.01	-1.73	22	.10
Positive Affect <i>SD</i>	-.02	.01	-1.75	22	.09
Negative Affect <i>M</i>	.11	.03	4.25	22	.00
Negative Affect <i>SD</i>	.01	.03	.48	22	.63
Avoidance					
Intercept	3.74	.06	58.24	22	.00
Positive Affect <i>M</i>	-.02	.01	-1.49	22	.15
Positive Affect <i>SD</i>	-.01	.02	-.43	22	.67
Negative Affect <i>M</i>	.08	.03	3.07	22	.01
Negative Affect <i>SD</i>	-.06	.04	-1.73	22	.10

Table 5.

Gamma Coefficients, Standard Errors, t-Ratios, and Degrees of Freedom for Analyses of Scale of Ethnocultural Empathy

		Gamma Coefficient	Standard Error	t-Ratio	Degrees of Freedom	p-value
EPT	Intercept	3.81	.10	38.35	22	.00
	Time	.22	.07	2.94	176	.01
EFE	Intercept	4.54	.08	54.05	22	.00
	Time	.09	.06	1.63	176	.11
ACD	Intercept	4.86	.10	50.96	22	.00
	Time	-.14	.07	-1.87	176	.06
EA	Intercept	4.76	.09	54.03	22	.00
	Time	.07	.08	.90	176	.38

Table 6.

Gamma Coefficients, Standard Errors, t-Ratios, Degrees of Freedom, and p-Values for Analyses of Positive and Negative Affect and EPT

	Gamma Coefficient	Standard Error	t-Ratio	Degrees of Freedom	p-value
Intercept	.21	.08	2.85	18	.01
Positive Affect Grand Centered <i>M</i>	-.03	.02	-1.02	18	.32
Negative Affect Grand Centered <i>M</i>	-.02	.06	-.43	18	.67
Positive Affect Grand Centered <i>SD</i>	.01	.04	.17	18	.87
Negative Affect Grand Centered <i>SD</i>	.04	.08	.52	18	.61

VITA

Keri Frantell was born in Woodstock, Illinois, to the parents of Bob and Sue Frantell. She has two older siblings, Amy and Nick, and five stepsiblings. She attended St. Joseph Catholic School from kindergarten to eighth grade and continued on to Fort Atkinson High School, both in Fort Atkinson, Wisconsin. She attended the University of Wisconsin-Whitewater and earned her Bachelor of Arts in Psychology, with a Scientist Practitioner Emphasis, in 2010. After taking time off to work with children in a residential treatment center, she attended Marquette University, earning her Master's of Science in Clinical Mental Health Counseling, with an Addictions Specialty. She is currently enrolled at the University of Tennessee-Knoxville, working with Dr. Joe Miles in pursuit of a Ph.D. in Counseling Psychology.