Does Optimal Distinctiveness Contribute to Group Polarization?

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DOES OPTIMAL DISTINCTIVENESS CONTRIBUTE GROUP POLARIZATION?

JOO HWAN LEE

ABSTRACT

Group polarization occurs when group members have more extreme views after learning others in the group have similar attitudes. This effect has been found in numerous studies (e.g., Stoner, 1969; Mackie, 1986). Several theories, such as self-categorization theory and social comparison theory have been used to explain the phenomenon of group polarization. In the current research, an alternative framework based on optimal distinctiveness theory was proposed as a way to predict group polarization. This theory claims that individuals have two conflicting needs- the need to belong and the need to be distinct. When one of these needs is unmet, people act in specific ways so that the need can be addressed. Because these are conflicting needs, it can be difficult to achieve a balance where both needs are satisfied. There are many different strategies, depending on the context, that people use to establish equilibrium. One goal of the current study is to see if people in groups alter their attitudes as a way to establish optimal distinctiveness.

To see if optimal distinctiveness plays a role in group polarization, specific experimental conditions were created where optimal distinctiveness would predict a particular pattern of results that differed from what existing explanations would expect. In moderate group norm condition, optimal distinctiveness and other explanations would predict polarization when needs are unmet. In extreme group norm condition, only optimal distinctiveness would predict less extreme attitudes when the need to be distinct is high. To activate particular needs and explore the role of optimal distinctiveness, a 2 (Group

composition: homogeneous vs. heterogeneous) $\times$ 2 (Strength of group norm: extreme vs. moderate) mixed experiment was created, with the first factor being between-participants and the second within-participants. Participants read two essays, were given feedback about group norms, and provided their attitudes at multiple points in time. While the primary analyses failed to support for the hypothesis that optimal distinctiveness plays a role, other more indirect analyses provide evidence that suggests group composition can at least heighten certain needs. Results also suggest when certain needs are high, people might alter views to help satisfy these needs.

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CHAPTER I

INTRODUCTION

For survival purposes, humans have always valued group membership (Brewer, 2007). For this reason, as members of a group, people tend to behave consistently with group norms because this tendency increases the chances of being accepted by fellow group members. Even though people follow their group norms consistently, they may continuously be concerned with their status in a group and be motivated to maintain the approval of others (Baumeister & Leary, 1995). This may be because they cannot precisely see how much other group members accept them as a part of their group (e.g., an authentic member). Why is group membership so important? According to Brewer (2007), group membership is beneficial and essential for success in life. Belonging to a group facilitates positive outcomes and is desirable because groups help individuals accomplish difficult goals and present a variety of resources (e.g., information, potential relationships) (Mackie & Goethals, 1987; Moreland, 1987). Groups also help members to secure important outcomes like jobs, education, prosperity, and other resources strongly connected to success in life.

Being a member of a group is beneficial and useful to individuals, and impacts the individual psychologically. Once people are accepted into groups, they start to develop identities as group members. Before becoming members, people may not heavily consider what group membership means or see the group as a part of themselves. However, through the socialization process, people accept group memberships, often perceive these memberships as important parts of their identity, and integrate this group identity as a part of their self-concept (Tajfel, 1981). There are many aspects to an individual's self-concept. When one considers the question "who am I?" the answers often relate to one's personal and social identities. Personal identity includes characteristics or traits that the individual feels he or she possesses (e.g., "I am funny"). However, social identities are the parts of one's self-concept that include group memberships and the characteristics related with the meaningful groups that one belongs to (e.g., "I am a Christian, so I value honesty") (Tajfel, 1981; Turner, 1982, 1985). This idea is one of the foundations of social identity theory. "Social identification is a process of depersonalization so people come to perceive themselves more as the interchangeable exemplars of a social category" (Turner, Hogg, Oakes, Reicher, & Wetherell,1987, p. 50).When group membership is incorporated into the self-concept, social identities develop the potential to impact how one feels about him or herself (e.g., self-esteem). In other words, because group identity serves partly to define who one is, people internalize the characteristics and properties of the meaningful groups they belong to. This is why people want to belong to high-status groups and distance themselves from low-status groups (Tajfel, 1981; Turner, 1982, 1985).

Through the internalizing process stated above, people form a more complicated and complex self-concept that include multiple selves (e.g., "I am an American, New Yorker,

and woman) (Triandis, 1989). It is important to note that having a self-concept of multiple selves is not the same as having multiple personalities. Having multiple selves is common and describes how group memberships and roles become a part of who a person is. There are benefits to having multiple selves. People can shift or change from one self-aspect (e.g., "I am a lawyer") to another self-aspect (e.g., "I am a father"). Shifting self-aspects can be done strategically to help a person. For example, if a person perceives a membership as a negative one, and he wants to have a positive feeling, shifting away from the negative identity by activating a more positive identity can be a way that the person escapes a negative self-image. This mechanism (flexible shifting among identities) can help to explain how people maintain their self-esteem and how people react when they feel threatened.

In support for the idea that people value group membership and use social identities strategically, it has been shown that people want to belong to groups or strengthen their group memberships when they feel threatened or anxious. Presumably this is because the presence of fellow group members or even the awareness that one belongs to a group can make people feel safer and more secure (Gailliot, Stillman, Schmeichel, Maner, & Plant, 2008; Park & Hinsz, 2006). Focusing on group memberships may reduce feelings of threat because when people remember they are a part of some group, they feel less alone and more protected. This may be why there was a period of stronger nationalism in the United States following the terrorist attacks on September 11, 2001 (Li & Brewer, 2004). That is, if citizens felt a sense of threat, danger, and anxiety, one way to decrease these negative states would be to bond with fellow group members (e.g., Americans). A possible strategy for increasing acceptance or maintaining highly stable membership so

that bonds would be welcomed and easily formed would be to show others that one is a "good" group member (e.g., being proud to be Americans). This could be achieved by endorsing the values of the group, exhibiting pride, and demonstrating loyalty. Thus, it would be expected that increases in nationalism would also be related with displays of group icons and symbols (e.g., flying the American flag, purchasing patriotic bumper stickers and clothing).

Despite these good intentions, at times, what results is more than simply an endorsement of group membership, norms, and attitudes. Instead, a pattern of attitudes or behavior intensification can occur. In these instances, the attitudes or behaviors of group members start to shift and become more extreme. For example, if a group is initially suspicious of foreigners, when intensification occurs, this suspicion will grow and turn into mistrust and hostility. Again, this seems apparent after September 11, 2001 and helps to explain the reported instances of harassment towards Muslim-American citizens and increased reports of vandalism against Islamic mosques (Ghazali, 2006). If individuals who had slightly negative attitudes towards Muslims before September 11, 2001 developed more intense negative attitudes following the attacks (although the attacks were not associated with Islam itself), would these prejudices be as intense if others in the group did not feel the same way? Research on group polarization suggests not, and demonstrates that membership in groups with *like-minded* others is what actually leads to the intensification of such attitudes and opinions (Stoner, 1961).

Group polarization refers to the phenomenon where group members who are on the same side of an attitudinal issue shift their opinions towards a more extreme but still consistent position (Burnstein & Vinokur, 1977). For example, if a person who endorses

moderately Republican political views joins a political discussion group of fellow Republicans, this group member who was initially moderate will likely leave the group supporting more extreme Republican views. Over the years, several explanations for group polarization have been offered and the three that are most relevant to the current paper will be discussed in more detail shortly. While these previous explanations have received some empirical support, arguably, they have not been tested thoroughly enough. Furthermore, an alternative framework that is currently being proposed in this paper could also be applied to explain group polarization. In this paper, optimal distinctiveness theory (Brewer, 1991) is offered as a competing explanation, and an aim of the proposed research will be to identify the potential role of these possible mechanisms that people can satisfy their needs to shift their own attitudes. Before describing optimal distinctiveness theory, a more detailed summary of the previous explanations for the effect will be summarized.

CHAPTER II

LITERATURE REVIEW

Social Comparison

One of the major explanations for group polarization comes from social comparison theory (Festinger, 1954). According to this perspective, people are motivated to be accurate, but also to be perceived positively. Therefore, people invest time and look to others to determine what is "correct" and to learn how to present themselves in socially acceptable ways (e.g., a good group member) (Brown, 1965). People tend to observe others' attitudes and behaviors and compare these to their own, and use this feedback to evaluate themselves and decide whether their thoughts and behaviors are correct (and acceptable) or not (Isenberg, 1986). For example, someone who goes to a foreign country and has a chance to have dinner at a traditional restaurant may not have any experience or knowledge about the eating norms of that country. What do people do to learn norms and rules for behavior? The answer will probably be to observe others carefully and to follow their example.

Social comparison theory suggests that individuals can get social approval by

comparing their own attitudes to the attitudes of others, and adopting such views (Hogg, Turner, & Davidson, 1990). Since similarity can increase liking, this strategy can be reasonable and should increase acceptance (Bersheid & Walster, 1978). However, people do not want to be identical with others in every aspect, they also want to stand out. One way suggested by social comparison theory to meet these competing drives simultaneously is to endorse the views of your group, but to endorse them even more intensely than other group members. By sharing the same view (e.g., republican view), acceptance from like-minded others will be achieved. Furthermore, by endorsing the views strongly (ultra-conservative republican), one can still feel unique without threatening their social bonds (e.g., being ostracized). In addition, if social comparison processes are used to determine what is acceptable or correct, by learning the views of others and then intensifying one's own attitude in this agreeable direction, one will only seem more acceptable, better, and more correct (Fromkin, 1970). This is how social comparison can be applied to understand group polarization.

To test this social comparison explanation for group polarization, a study (Blascovich, Ginsburg, & Veach, 1975) was designed using three different phases: an individual (time 1) phase, a group-without-discussion phase, and another individual (time 2) phase. In the individual (time 1) phase, participants rated their own opinions on a specific issue in private (e.g., -7 = "disagree completely" to +7 = "agree completely"), before learning anything about their fellow group members in the study. Then, in the group-without-discussion phase, they were exposed to other in-group members' ratings on the same issue. At this time, they were simply provided with feedback on how others in their group felt about the issue, and there was no interaction or discussion. According to a

social comparison explanation, interaction or discussion should not be needed to cause polarization. The group's feedback on others' views should be sufficient to create the effect. In actuality, in this study, these other group members did not even exist; participants were only led to believe they did. Importantly, the feedback that participants received from the experimenter indicated that all group members had attitudes on the same side of the issue (e.g., all either in favor or against the issue), resulting in the formation of a group norm. Finally, participants were asked to rate the same issue again during the individual (time 2) session, again in private.

If group polarization is occurring, there should be a "polarizing" or intensification of attitudes from the individual (time 1) phase to the individual (time 2) phase. That is, after being exposed to other members' ratings, individuals will feel stronger about the issue at time 2 compared to time 1. In the Blascovich, Ginsburg, and Veach (1975)'s study, this effect was found. To explain the result, social comparison theory is applied in the following way. At the individual (time 1) phase, the participant rates his/her own opinion slightly higher than the assumed group norm, with a desire to feel or look better or more correct than the other group members. To do this, they take several steps. Group members must first estimate how others will feel about the issue. In this study and others (Blascovich, Ginsburg, & Veach, 1975), participants are given issues where it is relatively easy to predict whether other students will generally be in favor or opposed to the issue. After estimating the direction and strength of the group norm (a collected attitude of other group members), which does not have to be done consciously, group members then provide a rating in that direction, but a slightly more extreme one. When participants are exposed to the real group norm in the form of feedback during the group-without-discussion-phase,

they are likely to find that they underestimated the strength of the attitudes held by fellow group members. Therefore, their initial ratings from the individual (time 1) phase are either lower than or closer to the group norm than expected, and so the attempts to gain approval or assume correctness are not met. After considering the feedback, when participants are asked to provide their attitudes on the issue again during the individual (time 2) phase, they shift their ratings to an even higher point than the previous one and go beyond the group norm. This is done to seem different from and better than other members.

While this explanation for group polarization is plausible and consistent with data, some questions arise. For example, why is there a tendency for participants to initially underestimate the strength of others' attitudes? And, would group members really go through these steps if others will not even see their responses? In these situations, people may do this to feel more connected, but it is unclear why people would do this if the goal were only to look favorably to others. Although the confidence in a social comparison explanation might be limited until such assumptions can be addressed, one important feature of the study that was just described (Blascovich, Ginsburg, & Veach, 1975) is worthy of attention. The design of the experiment included a 'group-without-discussion' phase, instead of a 'group discussion phase'. Therefore, participants only received feedback on how supposed others responded, and did not have any opportunity to discuss their views or reactions. This aspect of the design was included to prevent participants from receiving persuasive information from others about the issue. According to the persuasive argument theory (PAT; e.g., Burnstein & Vinokur, 1975, 1977; Burnstein, Vinokur, & Trope, 1973; Madsen, 1978; Vinokur & Burnstein, 1974, 1978), which is another explanation of group polarization, people can shift their choices when they are exposed to persuasive arguments

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and new information. When group members discuss an issue with like-minded others, they might learn new persuasive arguments and be even further convinced about their views. This could make their attitude at time 2 (after discussion) more extreme than at time 1 (pre-discussion). Since a social comparison explanation does not depend mainly on learning new persuasive arguments, polarization is found when groups do not even interact (and only receive feedback about ratings), then a persuasive argument explanation cannot be applied because people can take more extreme positions on an issue without new information. That is, a social comparison explanation was supported and a persuasive argument explanation was not supported, so the latter will not be further discussed in this proposal.

Self-categorization

One of the most basic and essential cognitive processes is categorization (Bruner, 1957). Categorization helps to connect new and existing information by providing a context so that information can be interpreted in meaningful ways. This makes information processing easier and the world more predictable, and allows one to plan actions and pursue goals more effectively. One common form of categorization is social-categorization, where people are assigned into categories. Furthermore, another common form of categorization is self-categorization, where one places him or herself into distinct social categories (Turner, 1982, 1985).When this occurs, the result of this categorization process is the development of "in" versus outgroup distinctions. An ingroup is made up of members that belong to the group along with the individual, while outgroups are made up of all those others who do not belong to the ingroup. As ingroup members, people start to perceive differences between their group and other groups, and these groups are

distinguished by distinctive norms, behaviors, and attitudes (Mackie, 1986). Self-categorization "depersonalizes" attitudes, feelings, and behavior in terms of the ingroup prototype, leading people to adopt a group rather than a personal perspective. Through the depersonalization process, people see themselves as a protypical member of the group and their thoughts and actions are guided by group norms and values more than personal ones (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). This results in a tendency to conform to the group prototype and to behave normatively (Hogg, 2001).

Furthermore, people are motivated to belong to groups (Turner, 1982). Ingroup members are likely to strongly hold onto their own group identity and will seek acceptance from other ingroup members. To strengthen and maintain their identity, ingroup members can minimize various differences from other ingroup members to demonstrate similarity, and distance themselves from outgroup members to indicate how different they are from "them". In these situations, ingroup members may assume that outgroups are opposed to their group. It follows that members can strengthen their ingroup identity by depicting how different they are from outgroup members. A common way this can be achieved is to conform to the prototypical ingroup norms and attitudes, including those that are extreme and/or polarized, such that the perceived distance from outgroups (who presumably hold opposite views) is maximized. For example, a person who identifies as a vegetarian, and who associates with a group of other vegetarians, might perceive his or her attitude as similar to the group norm. However, his or her attitudes might become more extreme than the group norm when confronted by a group of meat eaters. In this case, one's attitudes are likely to be shifted in the opposite direction of outgroup norms toward more extreme vegetarian views. This effect could be seen as group polarization because ingroup

members adhere to evermore-extreme ingroup perspectives. Some suggest that this mechanism explains the group polarization effect (Hogg, Tuner, & Davison, 1990).

In many group polarization studies, specific participants are assigned into groups and are asked to discuss their attitudes about some issue (Isenberg, 1981). Sometimes participants are strangers and meeting for the first time, and other times participants are not even in real groups, but are only led to believe they are (supposedly interacting via networked computers; told they will eventually meet their group members later) (Postmes, Spears, & Lea, 1998). Even though participants in these groups have not seen each other before and are expecting to be dismissed right after the study, minimal group conditions can be enough to create a sense of group membership. Participants will not make this new and temporal group identity an essential part of their self-concept, but studies using the minimal group paradigm (Diehl, 1990) show they will perceive themselves as a group member and will act like one.

When participants believe they are in a group, self-categorization theory states they will want to minimize the differences between themselves and other ingroup members, while also creating maximal distance between themselves and outgroup members (Hogg et al., 1990). One way this could be done when the task involves discussing attitudes is to endorse attitudes of a particular valence and strength. The self-categorization explanation states that participants minimize differences from ingroup members by endorsing the same side of an issue (e.g., to be for or against the issue, depending on the views of other ingroup members) and with a similar level of strength.

When asked to provide their initial individual (time 1) attitudes, it is possible participants have a sense of which side of the issue most people will be on (for/against;

positive/negative), and it is likely participants will generally endorse this overall opinion as well. By at least being on the same side of the issue, participants will be showing they are similar to other group members, and will thus avoid creating differences. They might also provide modest initial ratings because this would be another safe way to minimize differences with other ingroup members. If participants provide ratings that are much more extreme compared to other group members, they will be less similar with group members, even though they are on the same side of the issue. Therefore, instead of taking a risk to be presumed different, their ratings will be moderate to make it more likely their attitudes will be close with other members.

As outlined previously, in group polarization studies (Turner, Wetherell, & Hogg, 1989) participants learn about the views of other group members (via group discussion or written feedback) after they provide their initial attitude ratings during the first phase. After learning the views of others, participants confirm that they are in agreement with their group. In some cases, they might even learn that the group has stronger attitude about the issue than expected. When an outgroup attitude is known or is imagined, people have a tendency to make contrasts and focus on the shared characteristics within their own group, leading to the formation of a perceived prototype that represents the "essence" of their ingroup. Since they now know they have similar views as other ingroup members, acceptance by the group is presumed to some degree. But, to be a "good" group member, especially in an intergroup context, being similar to other ingroup members may not be enough. Instead, to really be a good group member, one also has to be different from the outgroup. To show one is opposite from outgroup members, a person might take a more extreme position on an attitude that the ingroup shares. But again, one will not be too

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extreme because this creates distance from the ingroup as well, so "more" extreme is the strategy that is used. According to self-categorization supporters, these motives explain why participants feel more extreme about issues at the individual phase (time 2) after learning the group's views.

While the self-categorization explanation is plausible, some aspects are unclear, and some assumptions have not been tested or have not received support. For example, the explanation states that people desire to maximize similarities with ingroup members and to maximize differences with outgroup members. This is reasonable because the explanation states that people think outgroup members will endorse the opposite attitude of one's ingroup. While this can often be the case, it is not necessarily true when the group is formed for reasons that do not deal with their attitudes. If students in a class are split into groups based on their sex and are asked to discuss their attitudes about education, will the males who think education is positive automatically assume the females view of education is negative? In addition, sometimes there isn't an obvious outgroup. For example, in group polarization studies, who would these outgroups be? In a recent study designed to test the self-categorization explanation, the typical polarization effect was found (Krizan & Baron, 2007). However, reports from participants suggest they did not consider how people in other groups (e.g., outgroup members) would respond, and did not feel they were responding in ways to distance themselves from potential outgroups.

Optimal distinctiveness theory

The purpose of the current proposal is to apply an alternative theory that may help to explain group polarization and has not yet been tested. This theory, called optimal distinctiveness theory (Brewer, 1991), states there is a fundamental tension between two

needs; the need to belong and the need to be distinct. The idea originally comes from the uniqueness theory that was suggested by Snyder and Fromkin (1980), which presumes that people meet both their needs (need to belong and need to be distinct) by maintaining the similarity between themselves and important others in intermediate degrees (Brewer, 1991). However, Brewer proposed a different theory, called optimal distinctiveness theory, which introduces a different perspective on how people can reconcile conflicts between the two needs.

Brewer (1991) said, "It is assumed that within a given social context, or frame of reference, an individual can be categorized (by self or others) along a dimension of social distinctiveness-inclusiveness that ranges from uniqueness at one extreme to total submersion in the social context at the other" (p.477). As people feel unique (low end of the inclusion spectrum), they feel different from others and realize the personal features that make them separate from others within a social context. On the other hand, as people experience inclusiveness in a social context (high end of the inclusion spectrum), they feel depersonalized and comparatively identical with the people in their surroundings.

Optimal distinctiveness theory states that when people feel too unique, or low in inclusion/connectedness, they will be eager to be similar with others or have a desire to be like others. Their opposing drive to differentiate themselves from others will be weaker because they already feel unique and distinct from those around them. Since the need to belong and to be accepted is not being satisfied, this need will drive their thoughts and behaviors (e.g., conformity). When people feel too similar to others and are high in inclusion/connectedness, their belonging needs are being met. However, when the drive in people to differentiate from others is not met, this social context motivates a stronger need

to distinguish themselves from others and to exhibit more of their own individuality (e.g., non-conformity), and a weaker drive to assimilate. The theory also states that there is an optimal level of inclusion, where both the need to belong and to be distinct are satisfied. Here, the drives to assimilate and differentiate are equal and moderate in strength.

Brewer (1991) states the dynamics of optimal distinctiveness plays an important function. Balancing the need to belong and to be distinct helps maintain the survival of the species. The need for assimilation and inclusion prompts people to join groups, and this desire for acceptance increases cooperation. On the other hand, the need for differentiation motivates people who are involved in a group to develop and reinforce individual skills and strengths. When a need is not being met, well-being and satisfaction decrease, activating people to change themselves or the situation. Optimal distinctiveness theory predicts that when people are placed in a situation that is too highly individualized, they might feel separated from their group. In contrast, if people feel too similar to others in their group and are deindividuated, they may lose self-awareness and a sense of personal-identity. As a result, people desire to be in contexts which provide psychologically stable states and not in contexts where either extremely individualized or depersonalized states are experienced (Brewer, 1991). Instead, individuals seek to reach an equilibrium, or point of *optimal distinctiveness,* where the two competing needs to be distinct and to belong are satisfied.

Optimal distinctiveness can be approached in many ways, and perhaps one method of approach that attains balance in group settings is through the strengthening of desirable attitudes. The following example will show how optimal distinctiveness might explain group polarization. Imagine three male friends who are all dedicated fans of the same pro-football team. Independently, they each decide to wear a team jersey to the game, to show

their support and level of loyalty. When they go to a game together, they find they are all wearing very similar jerseys (e.g., style and color). In one sense, being similar to others might make them feel positive because their similarity makes them feel validated and they can assume they will be accepted by others for their views. But, if they are too similar to one another, they might eventually become uncomfortable. According to optimal distinctiveness theory, if these fans seem to be almost the same or look too similar to each other, their need to feel distinct will be threatened. When they are at the game sitting together, they will be motivated to differentiate themselves to demonstrate their uniqueness and individuality. One way they can do this would be to adopt more extreme attitudes or take part in more extreme behaviors. For example, if their team does well during the game, they might react very passionately and show excitement to communicate how much the team means to them. They might compete against each other in this way to show how they differ from their fellow friends and fans. Or if their team is doing poorly, they might act with a lot of anger to show how much frustration they are experiencing. They might react in these ways to show they are not just "ordinary fans," but instead that they are "diehard fans." This would create a balance between belonging and distinctiveness because being a diehard fan allows one to be accepted by the group because they share the same attitude. Simultaneously, their loyalty and their support, which are extreme, allow them to separate from ordinary group members. If each of the friends tries to increase their support for the team to demonstrate their individuality, the level of intensity they need to exhibit will rise as they try to match and surpass one another. This may be why extreme behaviors emerge at sporting events (e.g., fan rivalry and violence), and why spectators are called "fans (fanatics)".

Since intensifying attitudes and behaviors can theoretically help one be distinct (and meet the need to belong if the attitudes are shared by others), optimal distinctiveness is a plausible explanation for the group polarization effect. This has been suggested by others (Codol, 1984), but has yet to be tested. Is there a way to test whether optimal distinctiveness is a better explanation for group polarization than the current two theories (social comparison, self-categorization)?

A situation where an extreme group attitude exists.

Designing a context to make optimal distinctiveness theory stand apart from other explanations is a way to test whether optimal distinctiveness plays a role in the group polarization process. Optimal distinctiveness would explain group polarization, or attitude intensification, as a way of exhibiting uniqueness. Group members might intensify the attitudes shared with other group members to show their own uniqueness, it can balance their needs for acceptance and distinctiveness. Even though this explanation is plausible, in the result of the experiment on group polarization, it is difficult to distinguish which factor (showing uniqueness) plays an important role in the mechanism of group polarization. However, optimal distinctiveness is different from social comparison and self-categorization because there is at least one condition where optimal distinctiveness would not predict extreme attitudes, but the social comparison and self-categorization would.

If distinctiveness is a need, one does not necessarily have to be more "extreme" to be different from others. One could actually be motivated to be less "extreme" if that is what makes one stand out. This may not be as likely or common, but in specific cases where other group members hold extreme attitudes, being less extreme is what would lead to distinctiveness. In past research on group polarization (Blascovich, Ginsburg, & Veach,

1975; Turner, Wetherell, & Hogg, 1989), participants receive feedback that informs them about their group's moderate attitudes (group norms). Under these conditions, if someone tried to meet both needs at the same time, this desire would lead people to have more polarized attitudes and to be more normative. Weakening one's attitude and stepping back from the moderate group norm (closer to neutral) could threaten one's approval from others because he or she will appear more indifferent, and might seem less like an "ingroup member." Past research shows polarization is consistent with optimal distinctiveness theory (as well as social comparison and self-categorization).

In past research, participants are never told that their group holds an extreme position on an issue, so past research cannot speak to an optimal distinctiveness explanation. It is under this condition (extreme group norm) that optimal distinctiveness leads to a unique prediction. In an experiment situation, if the supposed ingroup members (the rest of the group) show a polarized and strong attitude, it is predicted based on social comparison and self-categorization explanations that participants would report extreme attitudes as well. If group members are trying to be "more appropriate" (social comparison) or are trying to maximize differences from outgroups (self-categorization), then these explanations would predict participants in extreme groups will also endorse extreme attitudes. Therefore, they will place themselves around the shared group attitude (extreme attitudes) to be similar to their fellow group members. Neither of these theories would predict that participants will adopt less extreme attitudes, and both theories explain why participants would be motivated not to adopt an attitude that is less extreme. However, optimal distinctiveness theory would suggest that if there is no other way to be distinct (e.g., cannot be more extreme than others), if the need to be distinct is high, one will diverge from others and

adopt or maintain less extreme attitudes if that is the easiest way to meet this need. They will still have belonging needs met because they are still in universal agreement with their group, but they will also have distinctiveness met because they are not like everyone else.

One way to test whether optimal distinctiveness plays a role in polarization is to create situations where distinctiveness needs are low versus high, and to see if this manipulation relates to switches in attitude. These conditions can be created by varying aspects of the group.

Group composition

The composition of a group (e.g., characteristics of the members) can make a person feel more or less distinctive. For example, if a group consists of all females and one male, the male will be inclined to feel more distinct than the other female group members. The male would also feel that he is more different from other group members than if he were in a group comprised of all males. If a group consisted of all male members, particularly males who shared and felt similarities in many ways, the drive for differentiation would be high. Optimal distinctiveness theory would predict this because the males would be feeling too similar to others, and would be motivated to distinguish and exhibit their individual identity in some way. As stated earlier, one way that people could express their uniqueness is by agreeing with the group, but supporting the attitude either more strongly or mildly than others support.

One way to manipulate distinctiveness needs is to modify the sex composition of the group. By making the target participant either the same sex as the other group members or the opposite sex of other group members, levels of distinctiveness needs should differ. The reason sex composition of the group is a reasonable characteristic to manipulate

participants' feelings of sameness or uniqueness is because people are relatively sensitive to this type of information. Sex, like race, is a salient cue and is often used when people form impressions of others. Although a person's sex is not always relevant information, for whatever reason, people are concerned about the sex of others. In the United States, when a person is pregnant, the question they are usually asked first is, "is it a boy or a girl?" For all of these reasons, manipulating sex composition of a group should be an effective way to influence distinctiveness because people are likely to notice information about sex.

According to optimal distinctiveness theory, it is predicted that a person in a same-sex group will try to distinguish him/herself from other group members more than a person who is in a group with other members who are all of the opposite sex. Depending on the group norm (moderate or extreme attitude), this drive may cause polarization or result in expressing less extreme attitudes than others express. When a participant feels distinct because he/she is the opposite sex from others in the group, optimal distinctiveness theory would predict an increased drive for assimilation. This should result in adoption of the group norm. Therefore, the hypotheses are:

The first hypothesis: Homogeneous group members will have attitudes (time 2) that are farther from the group norm (mean attitude of the group) than heterogeneous group members (See *Figure 1*).
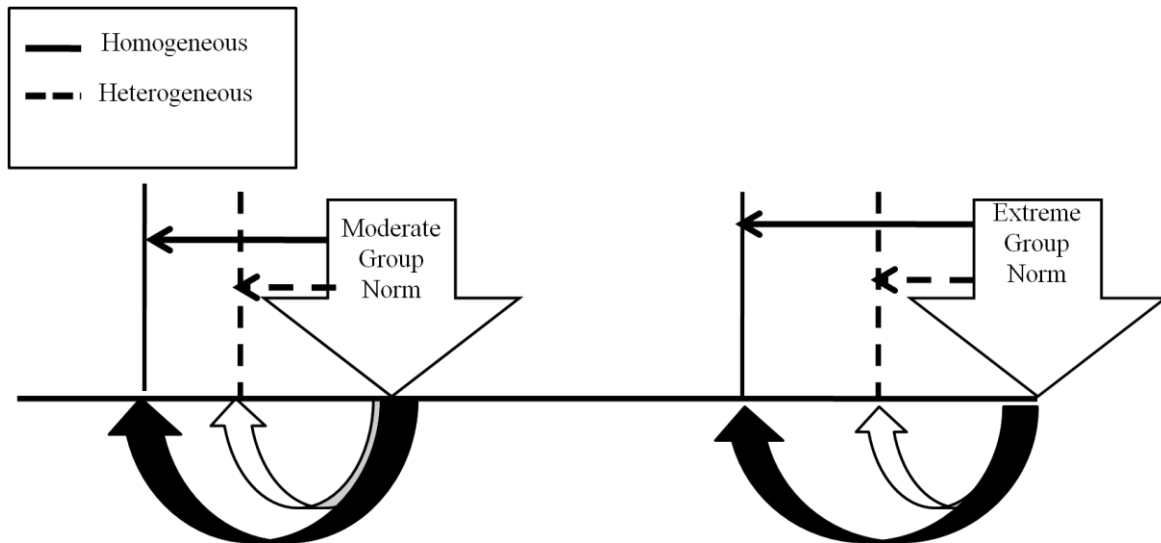
Figure 1. Predicted reactions based on the first hypothesis.

The second hypothesis: This main effect will be qualified by an interaction such that the distance from the group mean for homogeneous group members versus heterogeneous group members will be greater in the extreme group norm condition (within-subject) (See *Figure 2*).
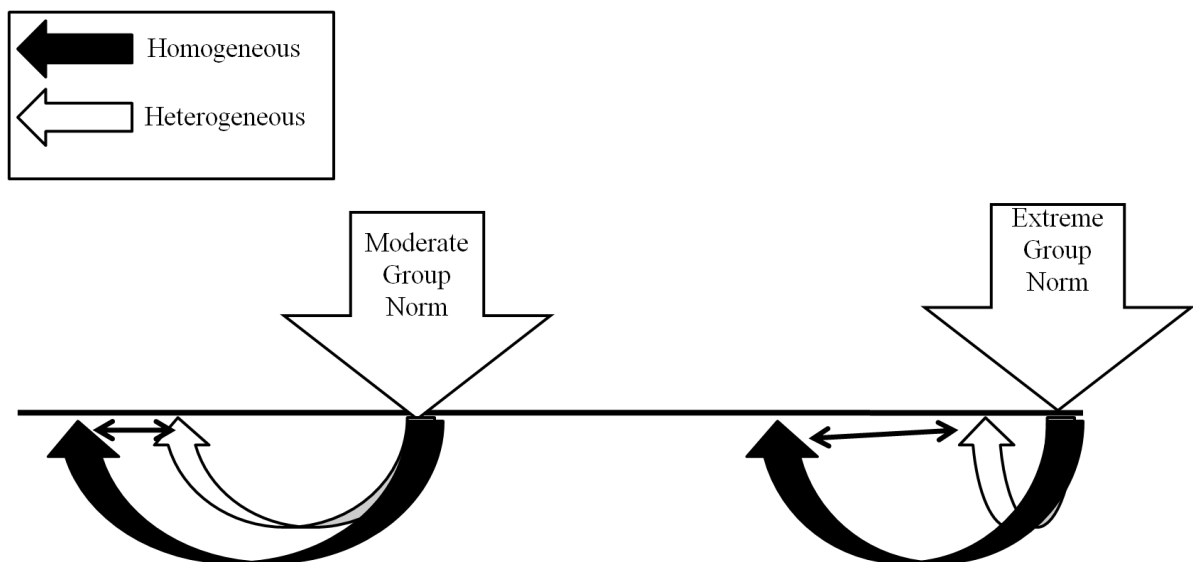
Figure 2. Predicted reactions based on the second hypothesis.

To test these hypotheses, the following study is being proposed:

CHAPTER III

METHOD

Participants

In this experiment, participants were from the student population at Cleveland State

University who participated to fulfill a requirement for their undergraduate Psychology

courses. There were 150 undergraduate participants (n male = 52 and n female = 98) who

were recruited from psychology classes that participated in the study for course credit.

General Overview and Design

Participants were assigned randomly to one of two different conditions (homogenous

vs. heterogeneous). In the homogeneous condition, participants were assigned to a group

that consisted of two other (computer-generated) members that were the same sex as the

participant and who appeared to have selected the same avatar (icon) as the participant to

represent themselves (the choosing of "avatars" will explained in more detail shortly). In

the heterogeneous condition, participants were assigned to a group that consisted of two

other members who were of the opposite sex from the participant, and who had each

selected different avatars from the participant to represent themselves. In every condition,

participants were asked to read about two different issues, and were asked to provide their

own attitude about each issue. Then, participants were shown feedback about the attitude ratings on these issues from "supposed" group members. All participants were shown feedback that shows an extreme group attitude on one issue and a moderate group attitude about the second issue (the order of extreme and moderate ratings were counter-balanced). After participants received feedback about how their fellow group members felt, they were asked again to provide attitude ratings on these two issues.

Thus, this experiment involved a 2 (Strength of group attitude condition: extreme vs. moderate) × 2 (Group composition condition: homogeneous vs. heterogeneous) mixed design, with the former variable being a within-participants variable, and the latter variable being a between-participants variable. In this experiment, we measured and compared the extent of change in each participant's attitude. The experiment was conducted using MediaLab psychology research software (MediaLab; Jarvis, 2005) and was administered using personal computers.

Procedure

Upon arrival, participants met an experimenter who welcomed them and provided them with an overview to the experiment. During this explanation, participants were led to believe they were going to be interacting in a group with others via networked computers. However, in reality, they performed the experiment individually in separate cubicles on computers that were not networked, so they were not interacting with other group members. Actually, these other group members did not even exist. After introducing the study, the experimenter led each participant to a smaller experiment room and individually assigned them a private computer. After participants were placed in front of their personal computers, the experimenter gave a "written informed consent form for the experiment" to the

individual participants and asked them to review and authorize it. Next, the experimenter

instructed the participants to follow the instructions presented on the screen. The

experimenter then left the room.

First, participants read the cover story explaining the "purpose" of the research. In

the cover story, participants were told that this experiment was a research collaboration

between CSU and Michigan State University. This information was provided to generate an

awareness of a specific outgroup in the participants and to increase the perception of an

overarching ingroup identity (CSU students). This is important because polarization

primarily occurs within the contexts of an ingroup. This was the cover story participants

saw:

> We are interested in how college students view various University policies, and
>
> whether the context of remote communication (ie: the internet) plays a role in
>
> opinion formation as group members interact. Attitudes about potential policies are
>
> being collected from college students at several public Universities using software
>
> that simulates various forms of online interaction. In the MIDWEST, students at
>
> CLEVELAND STATE UNIVERSITY and MICHIGAN STATE UNIVERSITY have
>
> been selected for participation in the project. If you have a question at any time
>
> during this experiment, please raise your hand and the experimenter will assist you.

After reading the cover, on the next screen, each particpant saw the following paragraph:

> This is a study involving group interaction, so at times in this experiment you will

be interacting with others as a group. Before you begin, we ask that you answer a

few questions about yourself. All of these responses will be kept completely

confidential.

After reading the cover story, the participant took a brief demographic survey that asked

for the participant's first name and gender. Upon completion of the demographic questions,

each participant saw a specific message designed to generate a stronger sense of group

identity. Specifically, this message stated that "CLEVELAND STATE UNIVERSITY has

been assigned to the domain: MAMMALS and your specific team is called: 'THE

CANINES'. This message was intended to make the cover story more believable and to

convince all participants that they belong to a group, called "Canines" (Perdue, Dovidio,

Gurtman, & Tyler, 1990). According to the "minimal group paradigm" (Diehl, 1990),

people who are randomly assigned to a group can see themselves as a group member and

will act like one, particularly if they are assigned a group name or other defining

boundaries are made explicit. Before going forward to the next screen, participants had to

complete the step of icon selection. Each participant was asked to select an avatar from

among three different types of avatars to represent themselves to their other "group

members." Participants were shown pictures of three different types of dogs (since they

are in the Canine group), and were asked to select one of the types of dogs so it could be

used as a personal icon during the online group interaction. By priming participants with

group-related images and text, a sense of group membership should have been bolstered.

Next, the following message appeared on the next screen: "The system is now ready

for THE CANINES to begin." Following this message, all of the avatars for the

participants' group (including his or her own avatar) were revealed in a "status bar" at the top of the screen for the remainder of the experiment. If the participant was placed in the heterogeneous group condition, the screen showed the participant's avatar and the two avatars supposedly chosen by the other two group members. Participants in this condition saw that the other two group members had chosen the same avatar as one another, while the participant had chosen a different one. Participants in this condition also learned that the other two group members were of the opposite sex from him- or herself, but.the same sex as each other, So heterogeneous participants were distinct from their group members in terms of sex and the icons they selected. This manipulation was created to increase the need to be similar with others. In the homogenous condition, three identical avatars (including the participant's) were supposedly selected. In this condition, the two group members each appeared to have selected the same image as the participant did to represent themselves, and they were both the same sex as the participant. So homogeneous participants were similar to their group members in terms of sex and icons selected. This manipulation was intended to increase a drive to be distinct.

The names that were displayed on the icons were also different depending on the participant's sex and condition (homogeneous and heterogeneous group condition). For example, if a participant was a female placed in heterogeneous condition, the other names were the male names, Mike and David. If a participant was a female assigned to homogeneous condition, the names of other group members were the female names, Kim and Grace. However, participants did not have their own names listed with their icons; instead, the pronoun 'YOU' was listed. The names that were used for the fake group members were clearly gender specific. The position of the participant's icon was also

different depending on the condition. If a participant was in the heterogeneous condition, his/ her icon would be placed on the left side of the row of three icons. Conversely, if a participant was in the homogeneous condition, his/ her icon would be put in the center of the row in the middle of the three icons. To keep reminding participants of their group identity and to strengthen their awareness of group composition, the same three icons were continually presented as a "status bar" at the top of the screen throughout the experiment.

After the section where participants learned about the demographic characteristics (and icon selections) of their group, each participant was asked to imagine that they are thinking about buying a car, and to rate how much they agree or disagree with the following statement using the provided scale. Participants saw two different pictures of the same model of a car but the cars were different colors (gold and silver). After they saw each picture, they were asked to rate how much they agreed with the statement "I want this car" using a 7-point Likert scale (e.g., Strongly disagree, Disagree, Somewhat disagree, neutral, Somewhat agree, Agree, Strongly agree) (See Appendix B). These two images (gold car vs. silver car) were displayed in random order regardless of condition. According to the released color popularity report of DuPont Automotive (Straitman, 2007), silver is the most popular car color (21%) in the world, while only 4% of drivers chose gold as their vehicles' color. So silver is a more common color for vehicles while gold is unique and distinct. The purpose of asking for car ratings was to explore if people in the homogeneous condition who are similar to their group members like the distinctive, gold car more than the silver car. And to test whether in the heterogeneous condition where the participant is distinct from his/her group members, if the more common silver car is preferred more than the unique gold one. This was an exploratory measure, and not a central hypothesis.

After completing this measure, participants were led to the next step where they determined their own position on the two issues regarding university policies that were mentioned in the cover story. People were asked to indicate how much they agree or disagree with the first issue using a scale from -100 to 100 (-100 = Strongly Disagree; 100 = Strongly agree) (See Appendix C). This was the information on the first issue that was presented to participants:

University Policy Issue 14-C: Increasing Weather Safety Thresholds; Many state-funded public universities in the northern midwest have come under scrutiny for their approach towards public safety. At the heart of this issue is how universities determine class cancellations in the event of bad winter weather. At present, most schools initially base their decision on the severity of the weather. However, a problem arises when schools decide not to close because they have already closed too many times that year. Research has shown that if a university cancels classes several times during a given year they will be much less likely to close the school in the event of more bad weather conditions. There are some who are critical of this approach. They argue that decisions about school closings should be based on weather conditions alone, not based on prior closings. They claim that universities are not properly prioritizing the safety of their students and faculty. Student Advocate Groups claim that if schools do not establish a standard threshold to determine whether classes should be cancelled, the safety of students and faculty will be compromised in the years to come. These risks would be elevated for schools that have a high degree of off-campus students who have to commute. As it stands,

elementary schools are more likely to close than universities during bad weather. This creates several unnecessary difficulties for students with children. Parents either have to stay home with their children and miss classes or pay for a babysitter and risk driving in bad and dangerous weather. Furthermore, the risk for students who commute to urban campuses is increased during unsafe weather conditions due to the increased concentration of traffic. The more people who travel, the more likely one will be involved in an accident. A proposal has been made to several state legislatures in an attempt to implement mandatory closing criteria that require all state-funded public universities to cancel classes if snowfall exceeds a threshold of four inches. This would require schools to cancel classes more often than they currently do in the event of bad weather conditions, however, student safety will be increased.

After participants had read about the issue and completed their attitude rating on it, the computer screen showed information on the second issue. After reading about the issue, participants provided their attitudes on it using the same scale. This was the second issue:

University Policy Issue 08-A: Funding for New Dormitory Development; Playing a central role in the forward momentum of the state, CLEVELAND STATE UNIVERSITY strives to enhance the quality of education that they give to their students. One way that has been shown to significantly increase the quality of education at state-funded universities involves attracting more out-of-state students to attend classes and reside on campus. Making campus home to more students has

been shown effective in the development of a more engaged learning environment.

However, the ability to attract determined out-of-state students requires that

universities provide a higher standard of on-campus housing, among several other

services. CLEVELAND STATE UNIVERSITY understands these needs as critical

to the future development of the University and is seriously considering plans to

begin construction of a new high-rise dormitory. Funding of this project, where

funding will come from in particular, has been a topic of considerable debate. The

present plan is to increase the tuition, beginning sometime within the next four

semesters for in-state students, thus making the cost of tuition for in-state students

comparable to the present rates for out-of-state students. However, in-state students

are not carrying the sole burden for the project. Tuition rates for out-of-state

students will be increased by 10% over their present rate. Furthermore, donations

from the Alumni Association are expected to help cover costs dramatically. The

profits accumulated will then be used to develop a sophisticated dormitory and

provide better services for those students who wish to live on campus. Long-term

studies have shown this approach to be successful in acquiring out-of-state and

international students. While making it more difficult for in-state applicants to gain

acceptance due to the raised standards of education, it also increases the reputation of

the University. A residual benefit of these results arises in heightened accreditation

associated with *all* students who graduate from this university. Construction is

projected to be complete within 5 years.

After providing their attitudes on the second issue, participants then performed an

individual "filler" task. The intention of this task was to take up time so it would difficult for participant to remember the exact values they chose when responding to the previous two issues.

Next, the screen presented feedback about how the other group members felt on the first issue and participants were led to believe their group members were also receiving feedback about how everyone in the group responded. The screen read, "This is how your team members felt about the issue concerning the implementation of a safety mandate that would require universities to close in the event of 4 inches of snowfall." All participants saw that their group members had attitude ratings of +97 and +100, which were ratings at the extreme end of the pro-attitude anchor. After being exposed to the other members' ratings to the first issue, the participant was asked to rate the same issue again (See Appendix C). Next, participants were shown the other group members' ratings for the second issue. This feedback read as follows, "This is how your teammates felt about the plan to fund the development of a new dormitory by increasing tuition rates." Participants saw that the group members gave ratings of -37 and-41, which were moderately negative. Then, all participants were asked to again provide their opinion on the second issue (See Appendix C).

After providing time 2 ratings on each issue, each participant was asked to respond to several follow up questions, including items that relate to feelings of cohesion, similarity, and distinctiveness (e.g., CSU student is an important aspect of my self-identity, the category "CSU student" is too big for me to feel included, and as a member of the category "CSU student", and it would be easy for me to stand as an individual) (See Appendix D). In addition, participants completed two other measures. The first was a Lexical Decision

Task (Devine, 1989) (See Appendix E). The basic purpose of a Lexical Decision Task

(LDT) is to measure how quickly participants classify stimuli as words or non-words. How

quickly participants can identify words indicates how salient that concept is (Devine, 1989).

To test how much participants are thinking about concepts related to similarity or

uniqueness, a lexical decision task was used. In this study, participants were exposed to a

total of 30 words and non-words. Four words relate to uniqueness (e.g., quirky, eccentric)

and four words relate to similarity (e.g., normal, typical). Among the 22 remaining stimuli,

17 were non-words (e.g., neic, and tuec) and the rest were control words that do not relate

to uniqueness or similarity (e.g., square, book). Participants were asked to respond as

quickly as possible to the stimuli, and to rate whether each stimulus was a word or not.

Using this exploratory measure, an analysis could be conducted to see whether conditions

(e.g., homogenous and heterogeneous) differ in reaction times to the uniqueness and

similarity-type words.

The second measure was the Self-Construal Scale, which examines how an

individual views him- or herself in relation to others (See Appendix F). This mindset can

be dispositional and activated at a state level as well. Two primary types of self-construal

have been identified: the independent and the interdependent (Markus & Kitayama, 1991).

People with independent self-construals see the self as stable and separate from

interpersonal contexts, and value self-promotion, autonomy, assertiveness, and uniqueness.

Independent self-construal leads people to focus on their individual traits (e.g., I am funny)

and how they differ from others. People with interdependent self-construals, on the other

hand, see the self as more flexible and intertwined with the social context, and value

maintaining group harmony and fitting in. Interdependent self-construal leads people to

view themselves in terms of their social roles (e.g., I am a father), and to focus on the good

of the group instead of the individual. To explore whether group composition

(homogeneous vs. heterogeneous), or how similar or distinct one is to others, impacts self-

construal, a state measure of self-construal was completed (Singelis, 1994). After this scale

was completed, the experimenter came into the room and debriefed each participant

individually. During the debriefing, the experimenter provided each participant with

printed information about the nature of the study and informed the participant that both

university issues described in the experiment were untrue.

CHAPTER IV

RESULTS

Group polarization

Recall that according to the first hypothesis, participants who are in homogeneous groups will have time 2 attitudes that are farther from the group norm than heterogeneous group members. Before testing this hypothesis, some data were removed. Similar to past research (e.g., Mackie, 1986), only participants who agreed with their group on the attitude issues (at time 1 and 2) were included in analyses. The predicted effects should only occur for people who are on the same side of the issue as their group members. Because a repeated measures analysis was conducted, with participants' attitudes on two separate issues as the within-participants variable, only participants who agreed with the group norms on both issues were included. Among 150 participants, 50 were removed because they did not meet this criterion. There was no condition effect, so the number of participants excluded did not differ by condition, $F (1, 149) = 0.85$, $p > .05$. Therefore, the primary analyses included 100 participants (n homogeneous = 52 and n heterogeneous = 48).

Using this sample, the following analyses were conducted to test the current

hypotheses. To calculate the distance between participants' time 2 attitudes and the group norm, participants' time 2 attitudes for each issue were subtracted from the group norm (mean rating: moderate group norm rating = -39; extreme group norm rating = 98.5). The absolute value was then calculated to represent the distance from the norm. The distance from the group norms for each participant were subjected to a 2 (group composition: homogeneous vs. heterogeneous) X 2 (group norm: moderate vs. extreme) ANOVA, with the last factor being a within-particpants variable. Results show there was no main effect for group composition (Issue 1 (extreme norm): M homogeneous = 38.79, sd = 42.82; M heterogeneous = 37.5; sd = 35.38; Issue 2 (moderate norm): M homogeneous = 19.94, sd = 39.76; M heterogeneous = 27.46, sd = 32.44), $F(1, 98)$ = .35, p = .86, thus, hypothesis 1 was not supported. The interaction between group composition and the repeated measure variable was not significant either, $F (1, 98)$ = .022, p = .884, so hypothesis 2 was not supported (See Table 1).

Table 1

Two-Way Repeated-Measures Analysis of Variance Summary of Distance from the group norms for group composition and strength of group attitude

Source		SS	df	MS	F
Between Groups (Group Composition)	Heterogeneous group Homogeneous group	30.971	1	30.971	.035
Within Groups	Extreme Moderate	23.650	1	389.270	.358
Group Composition X strength of group attitude		23.650	1	23.650	.883

*p < .05. **p < .01

To explore the hypotheses more thoroughly, additional analyses were conducted. Instead of calculating the distance from the group norm, analyses using time 2 attitudes were used. Again, there was no main effect for group composition, $F(1, 98)$ = .231, p = .64,

(Issue 1 (extreme norm): *M* homogeneous = 58.21, *sd* = 42.83; *M* heterogeneous = 59.50, *sd* = 35.38; Issue 2 (moderate norm): *M* homogeneous = - 58.94, *sd* = 39.76; *M* heterogeneous = - 66.46, *sd* = 32.44)) and no interaction, $F(1, 98) = .084$, $p = .73$ (See Table 2).

Table 2

Two-Way Repeated-Measures Analysis of Variance Summary of the scores of individual second attitude for group composition and strength of group attitude

Source	*SS*	*df*	*MS*	*F*
Between Groups Heterogeneous group (Time 2 scores) Homogeneous group	346.926	1	346.926	.231
Within Groups Extreme Moderate	1915.157	1	1915.157	1.780
Group Composition X strength of group attitude	90.677	1	90.677	.084

*p < .05. **p < .01

Analyses were also conducted using the difference (absolute value) between time 2 attitudes and time 1 attitudes (i.e., amount of attitude change after group norm feedback). There was no main effect for group composition, $F (1, 98) = .041$, $p = .84$, and no interaction, $F(1, 98) = .007$, $p = .94$. Although there was no hypothesis concerning main effects for group norm, a main effect was found in this particular 2 X 2 ANOVA, $F(1, 98) = 3.62$, $p < .05$, showing a bigger change in attitudes when the group norm was extreme ($M = 15.12$, *sd* = 2.73) compared to moderate ($M = 9.63$, *sd* = 1.78) (See Table 3).

Table 3

Two-Way Repeated-Measures Analysis of Variance Summary of difference between time 2 attitude and time 1 attitude and strength of group attitude

Source	SS	df	MS	F
Between Groups Heterogeneous group	17.457	1	17.457	2.894
(Time2-Time1) Homogeneous group				
Within Groups Extreme	29278.531	1	29278.531	45.049**
Moderate				
Group Composition X strength of group attitude	4.531	1	4.531	.007

*p < .05. **p < .01

Exploratory analyses

After reporting their final attitudes and responding to follow-up questions, participants completed the self-construal measure (Singelis, 1994) and then the lexical decision task. Following past research using the self-construal measure, two composites were created to represent an Independent score and an Interdependent score. A one-way ANOVA was conducted with individualism as the dependent measure and group composition as the independent variable. Consistent with past research (Markus & Kitayama, 1991), interdependent scores were included as a covariate. Results were not significant using conventional standards, $F(1, 97) = 3.360, p < .071$, but would be significant using a one-tailed test. Homogeneous group members scored (marginally) higher on independent self-construal than heterogeneous group members (homogeneous group $M = 61.73, sd = 1.14$; heterogeneous group $M = 58.5, sd = 1.19$). When using interdependent scores as the dependent variable and independence as a covariate, no main effect was found, $F(1, 97) = .579, p < .45$.

Results from the lexical decision task were also analyzed. For two of the words that relate to distinctiveness (eccentric, quirky), accuracy (responding correctly that these are

words rather than non-words) was significantly higher among those in the homogeneous condition, t (98) = 2.833, p < .01, and t (98) = 2.273, p < .03, respectively. This is consistent with the general idea that people in homogenous groups will have the concept of distinctiveness more activated, and will be more vigilant in detecting cues related to it. Reaction times for responding to these two distinctiveness-terms were also measured and compared. When analyses were performed using only participants who answered correctly, the pattern of results did not differ when compared to analyses using all 100 participants. In addition, standard deviations for reaction time for each word were calculated, and participants who were either three standard deviations above or below the mean in reaction time were removed. When removing participants, the pattern of results did not change in comparison to when all participants were included. So, reaction time analyses using the 100-participant sample are reported. For these two words that relate to distinctiveness (eccentric, quirky), reaction times were positively correlated, r (98) = .64, p < .05, and a composite was made by adding reaction times for these variables together. Analysis with this composite measure shows that people in the homogenous condition responded faster on these words, t (98) = 2.25, p < .05 (M homogeneous = 2458.90ms, sd = 1486.62; M heterogeneous = 3724.87ms, sd = 3591.01). Although no specific hypothesis about these relationship was presented, this finding is consistent with the overall idea that people in the homogeneous group condition would be more sensitive to cues associated with distinctiveness. Importantly, for lexical decision task data, homogeneous group members did not respond differently than heterogeneous group members in accuracy or reaction time when exposed to the control words. When looking at non-words, there was one item that showed a significant difference in reaction time, but homogenous group members

responded more slowly rather than more quickly. This suggests the lexical decision task

results are systematic rather than random.

CHAPTER V

DISCUSSION

Related to the hypotheses, after analyzing the data, results show the primary

hypotheses were not supported. People in homogeneous groups did not deviate more from

the group norm than participants in heterogeneous groups. It was expected people in

homogeneous groups would have their need to be distinct threatened, and would try to

restore feelings of uniqueness by expressing attitudes in a way that makes them different

from group members but still accepted by them.

There are several possible reasons the hypotheses were not supported. First, the

theoretical framework of optimal distinctiveness may not be related to the group

polarization effect. Current work on optimal distinctiveness focuses on how people activate

different social identities to meet their needs. The current study explored whether changing

attitudes would be an alternative strategy people apply. It is possible that people simply do

not use attitude change as a way to satisfy these needs, especially since attitude change

occurs on a more conscious and deliberate level than self-categorization processes.

However, it is also possible that the theoretical framework might be relevant, but

aspects of the study were not strong enough or sensitive enough to capture the predicted

tendency. The manipulation of similarity and distinctiveness was primarily done by altering

group composition in terms of participant sex and preference for the icon/avatar used to

represent them to the group. This is a subtle manipulation, but was expected to be strong

enough. Unfortunately, a manipulation check measure or process measure to test if group

composition was related to perceived similarity or difference from group members was

included, but measured after participants had already responded to the attitude issues and

other psychological scales. So, it is unknown whether group composition induced different

levels of perceived similarity or uniqueness as intended. In addition, even if the

manipulation was successful and group members in the homogenous condition had an

increased need to be distinct, it is possible that the drive that was temporarily induced was

not intense sufficiently for someone to change their conscious attitudes in the predicted

direction. This is the first study to apply optimal distinctiveness in this way, so no past

research was available to speak to such issues.

While the primarily analyses do not support the original hypotheses, exploratory

analyses are much more promising and support the general ideas outlined in this thesis,

exploratory analyses examining the influence of group composition on self-construal

scores showed marginally significant effect (significant with a one-tailed test). Participants

in homogenous groups had higher scores on independent self-construal. Although this

effect was marginal, it is important to keep in mind that the strength of the manipulation

(group composition) was subtle and only consisted of telling participants they were the

same sex as their group members and picked the same avatar/icon. Furthermore, the subtle

manipulation occurred at least 15 minutes prior to answering the self-construal measure.

This effect is worth mentioning because self-construal defines how an individual views

him- or herself, and is known to influence a variety of cognitive, affective, and behavioral tendencies (Markus & Kitayama, 1991). Directly related to this thesis, an independent self-construal leads people to focus on attributes that make them separate or unique from others (Singelis, 1994). Since homogeneous group members scored higher on independent self-construal, results suggest being in a group of similar others can increase one's desire for uniqueness, even shifting how one views him or herself in relation to others.

In the current project, a number of other measures were included and additional support for the general thesis was found when exploring these data. In a lexical decision task, participants rated whether letter strings were words or not. How accurately and quickly people respond to certain words indicate what constructs are accessible in their minds. This study found homogeneous group members were both faster and more accurate at categorizing the words "eccentric" and "quirky" than heterogeneous group members. Interestingly and importantly, these were the only words where group composition effects occurred. So it is unlikely that these specific words would be responded to more accurately and quickly by homogenous group members simply by chance. Instead, consistent with the theoretical framework proposed, it is more likely that homogeneous group members had the concept and drive of distinctiveness heightened in their minds. This case can be made given the other marginal effects that were previously described, all of which are in a direction consistent with this thesis.

It is clear there are limitations with the current research. For example, the participants did not actually interact in groups with other people. So the experimental situation was an artificial one, and participants only received feedback on group member ratings. While these minimal group conditions arguably make the exploratory effects that

were found more powerful, in future research it would be advisable to increase the realism of the situation and to have participants act in groups with real people that they care about and value. Under these conditions, the hypotheses might be easier to test and support because with stronger situations, stronger reactions occur.

Another limitation deals with the intensity and type of distinctiveness that was intended to be manipulated. This research focused on group composition, and used participant sex as a way to make participants either similar or different from their group members. This type of manipulation might be more meaningful if the situation more directly involved participant sex (e.g., male nurse might strengthen attitudes that are consistent with female co-workers). Perhaps, an even better manipulation for similarity or distinctiveness in groups might be to use something other than sex, such as the sports fan example from the introduction. If people in a group are all wearing the same uniforms or paint their faces in the same way so they are indistinguishable, it is hard to think their need to be distinct will not be high. Or, if everyone is wearing the same uniform or paint their faces in the same way except for one fan, it is hard to imagine this outcast will not try to assimilate with the others in the group. So using appearance might be a good direction for future research in this area. Lastly, increasing group size so groups are larger than three members might also be an appropriate adjustment to the methodology. As group size increases, the intensity of how similar or distinct one feels from others will be higher. If twenty group members are wearing blue and one is wearing is red, the person wearing the red shirt should have a much stronger need to be similar compared to if there were only two other group members.

In terms of the general implications of the current research, what results show are

that group composition matters and can influence what needs become salient in individual group members. If group members need to be cohesive and need to focus on similarities to perform their task effectively, then the group and setting should be structured so that overarching commonalities (e.g., biological sex if the group is all male) are not salient. If there are too many commonalities among members, then they will have a higher need to be distinct. They will have an independent self-construal, and will have a drive to contrast themselves to others and will want to focus on how they differ from their group members.

A theoretical implication that follows from the current research is that the need to be distinct is a strong drive in many people (at least participants in this study), and is one that can be threatened in group contexts. Participants were very sensitive, not necessarily consciously, to information that might threaten this distinctiveness need. Information about the sex of other group members seemed to be enough to make people in same-sex groups sensitive to the concept of distinctiveness. This also shows that people define themselves in terms of their sex, at least when sex is the only information one has about their group members. If gender was not a part of the self-concept, then being the same gender as other group members should not threaten distinctiveness.

Conclusion

Over three decades, research has shown that no single, broad theory can explain the group polarization phenomenon. Research suggests there are multiple factors that influence attitudes in groups. The current study complements this past work by focusing on the role of fundamental drives that are in competition (need to belong and need to be distinctiveness), and explored how changing attitudes in groups might be a way of resolving this conflict. Although specific attitude changes were not found, the importance

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of considering group composition was demonstrated, and the fundamental nature of human

needs, like the need to be distinct, was seen in results that showed how sensitive people are

to conditions that threaten this drive.

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APPENDICES

IRB APPROVAL

Cleveland State University

College of Graduate Studies and Research
Office of Sponsored Programs and Research
Institutional Review Board (IRB)

Memorandum

To: Ernest Park
        Psychology

From: Blake Hodges
        Institutional Review Board
        Office of Sponsored Programs & Research

Date: 16 September 2008
Re: Results of IRB Review of your project number: 28301-PAR-HS
        Co-Investigator: Joohwan Lee
        Entitled: Group Polarization and Optimal Distinctiveness Theory

The IRB has reviewed and approved your application for the above named project, under the category noted below. Approval for use of human subjects in this research is for one year from the approval date listed below. If your study extends beyond this approval period, please contact this office to initiate an annual review of the project. *This approval expires at 11:59 pm on 9/14/2009.*

By accepting this decision, you agree to notify the IRB of: (1) any additions to or changes in procedures for your study that modify the subjects' risk in any way; and (2) any events that affect that safety or well-being of subjects.

Thank you for your efforts to maintain compliance with the federal regulations for the protection of human subjects.

Approval Category: **Date: 09/15/2008**

    Exempt Status: Project is exempt from further review under 45 CFR 46.101 (b1)

X   Expedited Review: Project approved, Expedited Category 7

    Regular IRB Approval

cc: Project file

APPENDIX B

THE CAR QUESTIONNAIRE

Imagine you need a new car. You will see several images of new cars and be asked to rate them. Using the provided scale, rate how much you agree/ disagree with following statements? "I want this car."

Strongly Disagree	Somewhat Disagree	Disagree	Neutral	Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

Note. Participants see the same model of a car but different colors (gold, and silver) with the statement. Therefore, each participant is asked the same question twice regardless of condition.

APPENDIX C

INDIVIDUAL RATINGS TO THE ISSUES

The First Individual Rating to the Issue. 1: Increasing Weather Safety Thresholds

How much do you agree or disagree with the idea to implement a safety mandate that would require Universities to close in the event that snowfall exceeded four inches?

-100--+100

| Strongly | Neutral | Strongly |
| Disagree | | Agree |

note. This is the question in the individual phase (time 1).

The First Individual Rating to the Issue. 2: Funding for New Dormitory Development

How much do you agree or disagree with the plan to fund the development of a new dormitory by increasing tuition rates?

-100--+100

| Strongly | Neutral | Strongly |
| Disagree | | Agree |

note. This is the question in the individual phase (time 1).

The Second Individual Rating to the Issue. 1

Please indicate your opinion one more time. How much do you agree or disagree with the idea to implement a safety mandate that would require Universities to close in the event that snowfall exceeded four inches?

-100--- +100

| Strongly | Neutral | Strongly |
| Disagree | | Agree |

note. This is the question in the individual phase (time 2).

The Second Individual Rating to the Issue. 2

Please indicate your opinion one more time. How much do you agree or disagree with the plan to fund the development of a new dormitory by increasing tuition rates?

-100-- -------------------------------- +100

| Strongly | Neutral | Strongly |
| Disagree | | Agree |

note. This is the question in the individual phase (time 2).

APPENDIX D

FOLLOW-UP QUESTIONNAIRE

1. Please recall the issue concerning the implementation of a safety mandate that would require Universities to close in the event of 4 inches of snowfall. Please indicate, as best as you can remember, how much YOU agreed or disagreed with the issue THE FIRST TIME YOU RESPONDED.

-100-- +100

Strongly   Neutral   Strongly

Disagree   Agree

2. Please recall the issue concerning the implementation of a safety mandate that would require Universities to close in the event of 4 inches of snowfall. Please indicate, as best as you can remember, how much <teammember1> agreed or disagreed with the issue.

-100-- +100

Strongly   Neutral   Strongly

Disagree   Agree

3. Please recall the issue concerning the implementation of a safety mandate that would require Universities to close in the event of 4 inches of snowfall. Please indicate, as best as you can remember, how much <teammember2> agreed or disagreed with the issue.

-100-- +100

Strongly   Neutral   Strongly

Disagree   Agree

4. Please recall the plan to fund the development of a new dormitory by increasing tuition rates. Indicate, as best as you can remember, how much YOU agreed or disagreed with the issue THE FIRST TIME YOU RESPONDED.

-100-- +100

Strongly   Neutral   Strongly

Disagree   Agree

5. Please recall the plan to fund the development of a new dormitory by increasing tuition

rates. Indicate, as best as you can remember, how much <teammember1> agreed or disagreed with the issue

-100--- +100

| Strongly | Neutral | Strongly |
| Disagree | | Agree |

6. Please recall the plan to fund the development of a new dormitory by increasing tuition rates. Indicate, as best as you can remember, how much <teammember2> agreed or disagreed with the issue.

-100--- +100

| Strongly | Neutral | Strongly |
| Disagree | | Agree |

7. Overall, how much do you like or dislike your team mates?

-100--- +100

| Strongly | Neutral | Strongly |
| Dislike | | Like |

8. How much do you like or dislike <teammember1> ?

-100--- +100

| Strongly | Neutral | Strongly |
| Dislike | | Like |

9. How much do you like or dislike <teammember2> ?

-100--- +100

| Strongly | Neutral | Strongly |
| Dislike | | Like |

10. Overall, how much do your team members like or dislike you?

-100--- +100

| Strongly | Neutral | Strongly |
| Dislike | | Like |

11. How much does <teammember1> like or dislike you?

-100-- +100

Strongly   Neutral   Strongly
Dislike   Like

12. How much does <teammember2> like or dislike you?

-100-- +100

Strongly   Neutral   Strongly
Dislike   Like

13. Please recall the issue concerning the implementation of a safety mandate that would require Universities to close in the event of 4 inches of snowfall. How important of a role did your team mates attitudes play when considering your position on the issue?

-100-- +100

Very   Neutral   Very
Unimportant   Important

14. Please recall the plan to fund the development of a new dormitory by increasing tuition rates. How important of a role did your teammates play when considering your position on the issue?

-100-- +100

Very   Neutral   Very
Unimportant   Important

15. How similar or different do you feel to your group members?

-100-- +100

Very   Neutral   Very
Different   Similar

16. How similar or different do you feel <teammember1> is from you?

-100-- +100

| Very | | | Neutral | | | Very |
| Different | | | | | | Similar |

17. How similar or different do you feel <teammember2> is from you?

-100-- +100

| Very | | | Neutral | | | Very |
| Different | | | | | | Similar |

18. My response in part reflected a desire to get along with other group members.

Strongly	Somewhat				Somewhat	Strongly
Disagree	Disagree	Dsiagree	Neutral	Agree	Agree	Agree
1	2	3	4	5	6	7

19. What id the typical attitude of a student from MSU (Michigan State) on the issue?

-100-- +100

| Strongly | | | Neutral | | | Strongly |
| Disagree | | | | | | Agree |

20. Indicate how much you agree with the following statements:"CSU student" is an Important aspect of my self-identity. (e.g., who I am)

Strongly		Somewhat			Somewhat	Strongly
Disagree	Disagree	Dsiagree	Neutral	Agree	Agree	Agree
1	2	3	4	5	6	7

21. Indicate how much you agree with the following statements: The category "CSU student" is too big (too many members)for me to fell included.

Strongly	Somewhat				Somewhat	Strongly
Disagree	Disagree	Dsiagree	Neutral	Agree	Agree	Agree
1	2	3	4	5	6	7

22. Indicate how much you agree with the following statements: As a member of the category "CSU student", it would be easy for me to stand out as an individual if wanted to.

| Strongly | Somewhat | | | | Somewhat | Strongly |

Disagree	Disagree	Dsiagree	Neutral	Agree	Agree	Agree
1	2	3	4	5	6	7

23. Indicate how much you agree with the following statements: When I think of my membership in the category "CSU student", I feel like one person lost in a big crowd.

Strongly Disagree	Somewhat Disagree	Dsiagree	Neutral	Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

24. indicate how much you agree with the following statement As a member fo the category "CSU student", I feel like a person and not just a number.

Strongly Disagree	Somewhat Disagree	Dsiagree	Neutral	Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

APPENDIX E

LEXICAL DECISION TASK

In this task, you will see a series of letters appear in the center of the computer screen.
Your task is to judge, as quickly as possible, whether these letters make up
an actual word or merely a meaningless jumble of letters.
Press 1 to indicate it IS a word.
Press 2 to indicate it IS NOT a word.

1: Word 2: Not a word

1. Unique
2. Portaaj
3. Typical
4. Original
5. Typinal
6. Norminol
7. Normal
8. Mudment
9. Distinct
10. Ecentiric
11. Octelve
12. Agretible
13. Baeneg
14. Quirtinct
15. Agreeable

16. Lastez
17. Quirky
18. Renijo
19. Conventional
20. Seulpe
21. Sky
22. Rks
23. Square
24. Tuec
25. Coat
26. Book
27. Eccentrict
28. Rwak
29. Neic
30. Quiere

APPENDIX F

SELF-CONSTRUAL SCALE

Respondent were asked to indicate their agreement with the items in a 7-point Likert-type format.

Strongly Disagree	Somewhat Disagree	Dsiagree	Neutral	Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

Interdepdent items
1. I have respect for the authority figures with whom I interact.
2. It is important for me to maintain harmony within my group.
3. My happiness depdends on the happiness of those around me.
4. I would offer my seat in a bus to my professor.
5. I respect people who are modest about themselves.
6. I will sacrifice my self-interest for the benefit of the gorup i am in.
7. I often have the feeling that my relationships with others are more important than my own accomplishment.
8. I should take into consideration my parents' advice when making education/ career plans.
9. It is important to me to respect decision made by the group.
10. I will stay in a group if they need me, even when I'm not happy with the group.
11. If my brother or sister fails, I feel responsible.
12. Even when i strongly disgree with group members, I avoid an argument.

Independnet items
13. I'd rather sya "No" directly, than risk being misunderstood.
14. Speaking up during a class is not a problem for me.
15. Having a lively imagination is important to me.
16. I am comfortable with being singled out for praise or reward.
17. I am the same person at home that i am at school.
18. Being able to take care of myself is a primary concern for me.
19. I act the same way no matter who I am with.
20. I feel conformatable using someone's first name soon after i meet them, even when they are much older than I am.
21. I prefer to be direct and forthright when dealing with people i've jus met
22. I enjoy being unique and different form others in many respects.
23. My personal identity indepdendent of others, is very important to me.
24. I value being in good health above everything.