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Banning the deviant out-group member: the use of anger and contempt toward in-group and out-group members

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BANNING THE DEVIANT OUT-GROUP MEMBER: THE USE OF ANGER AND
CONTEMPT TOWARD IN-GROUP AND OUT-GROUP MEMBERS

by

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Thesis

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Abstract

Prior research has argued that contempt behaves as an exclusionary emotion generally felt against strangers, whereas anger tends to be an attack emotion felt toward close others (Fischer & Roseman, 2007). Participants were assigned to conditions where they interacted with a target player who was either an in-group or out-group member who behaved in either socially adherent or deviant ways. It was hypothesized that when the player was a deviant out-group member, the participant would experience higher levels of contempt than the in-group deviant, whereas participants interacting with an in-group deviant were expected to experience higher levels of anger than the out-group deviant. The results of the experiment demonstrate that participants tended to desire more control over an in-group deviant than an out-group deviant. The findings demonstrated here can be applied to studies of aggression, group dynamics, and the black sheep effect (Marques & Paez, 2011).

Chapter One: Introduction

“True, genuine contempt, which is the obverse of true, genuine pride, stays hidden away in secret and lets no one suspect its existence: for if you let a person you despise notice the fact, you thereby reveal a certain respect for him, inasmuch as you want him to know how low you rate him — which betrays not contempt but hatred, which excludes contempt and only affects it. Genuine contempt, on the other hand, is the unsullied conviction of the worthlessness of another.”

--Arthur Schopenhauer in *Counsels and Maxims*

As Schopenhauer establishes in the epigraph, hatred and contempt are not synonyms. Contempt is the emotional manifestation of a person's devaluation into nothingness; it marks a judgment of a person being beyond consideration and unworthy of respect, even such respect as to be despised. Contempt, though being one of the seven universally recognized emotions according to Ekman and Heider (1988), has remained in relative obscurity in psychological literature though its effects as a motivator of behavior may still be profound and impactful, particularly in regard to interpersonal rejection.

Contempt may play a major role in the ostracizing of other people. Ostracism has been referred to as a “social death” in that those who are rejected are placed in a position where others treat them as though they do not exist (Williams, 2007). Despite the large amount of prior literature that discusses ostracism and social exclusion as well as a number of studies on bullying and peer victimization (for bullying see Ranta, Kaltiala-Heino, Pelkonen & Marttunen, 2009; Xie et al., 2002; Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukianinen, 1998), little experimental research has been conducted on the reasons why people reject others, and most prior research tends to focus on either dispositional personality

variables (Einarsen, 1999), biological and temperamental factors (Smith & Ananiadou, 2003), or family and environmental factors (Schwartz, Dodge, Pettit, & Bates, 1997). As of now, limited research has assessed the relationship of contempt to exclusion nor are these effects clearly distinguished from anger and its relation to rejection, victimization, and aggression.

Taking a social function approach to emotion and rejection, this thesis aimed to understand and clarify the differences between anger and contempt. Specifically, this experiment examined how contempt and anger operate differently as a function of in-group and out-group dynamics and how these dynamics are affected by interpersonal interaction between in-group and out-group members. Although it was expected that participants would experience more anger toward members of their own group, participants may be more likely to experience more contempt toward out-group members who violate proscriptive norms and reject that person than in-group members who behave similarly. The introduction will explore previous research on 1) inter-group dynamics and conflict, 2) the social functions of emotions with particular emphasis on anger and contempt, and 3) prior research on intra-group conflict/sanctions and out-group rejection.

Intergroup Dynamics

A number of prior studies have identified that people possess an in-group favorability bias such that people tend to behave more favorably toward participants' who are part of an in-group based on petty distinctions; this is known as minimal intergroup discrimination (Brewer, 1979; Locksley, Ortiz, & Hepburn, 1980). Research has identified that in-group favorability is generally dependent on to what extent there exists intergroup conflict, whether the in-group is highly cohesive, and differences in status. The research also suggests that an

in-group favorability bias does not necessarily suggest out-group hostility, and any increases in the in-group bias affects in-group favorability more so than out-group discrimination (Brewer, 1979).

The effects of in-group biases tend to influence in-group member's perceptions even when such groups are based on arbitrary distinctions. Locksley and colleagues (1980) found that participants evaluated a person's social desirability more favorably if they are part of a minimal in-group. In the case of this study, participants were randomly assigned in a lottery fashion to one of two groups, the Phis or Gammas, and the researchers found that participants rated members of their own group considerably more favorably than out-group members. This effect demonstrates that participants often will perceive members of an in-group, even an arbitrary and meaningless group, in a more positive light, especially compared to out-group members.

An experiment conducted by Dion (1973) created minimal intergroup discrimination by giving people bogus personality feedback on several measures given at the beginning of an experiment. Some participants were informed that confederates had a very similar personality to themselves (high cohesive), whereas other participants were informed that confederates were not very much like them at all (low cohesive). After this, participants played a game of prisoner's dilemma. Participants in the high cohesive condition tended to rate in-group members more favorably than out-group members, and these participants also worked better with in-group members. These findings did not exist in the low cohesive condition. Contrary to expectation, participants did not discriminate against out-group members more in the highly cohesive condition.

Competition between groups can also lead to different evaluations of in-group and out-group members depending on the competition outcome. Prior research has found that participants who competed in a competition and won while their opponents also lost tended to rate their own team members considerably higher than when their team lost. When the participant's team lost they tended to rate opposing team member more favorably than in-group members though still far from the degree of when one's own team one suggesting the effects of a favorable out-come of conflict on in-group perception (Wilson & Miller, 1961).

Though competition can lead to intergroup hostility and conflict, as occurred in the famous Robbers Cave Experiment (Sherif & Sherif, 1953), further study of this phenomenon suggests that the out-group hostility of the Robbers Cave Experiment did not occur when the participants were already familiar with the people from both in-group and out-group (Tyerman & Spencer, 1983). Essentially, people seemed to experience strong out-group hostility when the follow campers were mostly strangers, but when people already new the people placed in both in-group and out-group, hostility did not break out despite competition between the two groups. Furthermore, the groups did not display the same high level of cohesion that was found when in the case where the participants started off as strangers (Tyerman & Spencer, 1983)

Though competition in itself may not yield out-group hostility, earlier research does suggest that groups in competition may behave differently around out-groups than groups involved in cooperation. One study found that people from two groups in competition sat physically farther apart compared to coaction or cooperative groups. Members of competitive groups also tended to sit on opposing ends of the table whereas the cooperative groups tended to sit on the opposite sides of the table, a more cooperative orientation. Furthermore,

groups that lost a competition tended to have less of an in-group favorability bias than winning groups (Ryen & Kahn, 1975).

Additional research has explored the occurrence of nonverbal signals that are expressed between competing and cooperating groups. One study in particular found that groups tended to mirror the nonverbal postures of the other group when the expectation was cooperation between groups. When the expectation was competition between groups, the groups tended to display more different postures in an attempt to nonverbally differentiate their group from the other. Additionally, those in cooperative groups tended to perceive greater cooperation among members of their own group than those in cooperative groups (LaFrance, 1985).

The differences between the behaviors toward and the perceptions of in-group and out-groups in competition or cooperation may be in part explained by the Affective Forecasting bias. People often anticipate poor outcomes to follow between themselves and members of an out-group (i.e. a different race) due to failure to anticipate similar interests. One experiment demonstrated significant effects based on how participants were told to focus, either on similarities or differences, and found that those who focused on the similarities predicted better outcomes of conversation than those who focused on differences (Mallet, Gilbert, & Wilson, 2008). Applied to intergroup competition, it may be the case that people may be more likely to look for or anticipate similarities between group members when asked to cooperate with an out-group than when competing with them.

Another example in which Affective Forecasting bias may play a role might be with inter-group rejection. An experiment conducted by Shapiro, Baldwin, Williams, and Trawalter (2010) demonstrated that white participants were more likely to believe that a

black man pictured with a friend who was also black would reject them more so than when his friend was a white man. They also found that the white participants were also more likely to reject the out-group member when pictured with a black man; although, this effect was neutralized when participants were induced to think of a time when they were included. Taking the Affective Forecasting bias, it is likely that white men do not anticipate a considerable amount of similarity will exist between them and a black man who associates with other African-Americans, but he may believe that he will have more in common with a black man who associates with members of his own group.

Another example of a pervasive bias that most out-groups and out-group members tend to suffer from is the out-group homogeneity bias. Prior research suggests that the out-group homogeneity bias, a tendency to view out-groups as being less diverse or more similar than the in-group, appears to a substantial degree regardless of whether the in-group anticipates cooperation or competition. The same research also suggests that people had better recall of individual out-group members in the competition condition as opposed to the cooperative condition. Though in both conditions participants had similar recall of in-group member characteristics, those in the cooperation condition tended to display greater confusion in recalling out-group members suggesting a stronger inclination toward the out-group homogeneity bias (Judd & Park, 1988).

Though in-group members often fall prey to the out-group homogeneity bias, other research in the field suggests that an in-group variability bias may exist. Doosje, Ellemers & Spears (1995) conducted two studies in which they uncovered that perceptions of in-group variability can be heavily influenced by group identification and group status. When someone has low group identification and the group has low status, that person will tend to report

greater variability among in-group members. Those that are high in group identification when the group is low in status will tend to report greater homogeneity among group members.

Perceptual biases such as the out-group homogeneity bias can lead into other biases and heuristics that can misrepresent groups based on a group attribution error. Earlier studies have demonstrated that people will often take the behaviors of individual out-group members to infer the general tendencies of the out-group. In-group members did not use other in-group members to infer the attitudes of the in-group (Quattrone & Jones, 1980). Similarly, people tend to rely on heuristics and information based on group decisions to infer group attitudes (Allison, Worth & King, 1990), which may be improperly attributed to the group as a whole due to the bias of out-group homogeneity.

Social Functions of Emotion

Emotions have functions and motivated aims that direct the expression and experience of affect. Prior Psychological literature identifies that emotions possess important functions toward the evolution of social relationships (Fischer & Manstead, 2008). The Emotions as Information Model (EASI) suggests that people often use emotions to understand the thoughts and behaviors of other people through inferences. Also, people use EASI when assessing their own affective reactions to a person, which has an effect on their behavior (Van Kleef, 2009). Emotions are quite important in social interactions, and emotions are distinct to themselves in that they are motivated by different stimuli and might serve very different social and moral functions.

Emotions can be quite distinct as each emotion functions with different sets of motivational principles and is experienced and expressed very differently. In addition, most

people can make qualitative distinctions between different emotions (Roseman, Wiest, & Swartz, 1994). This suggests that emotions are qualitatively different and not just quantitatively different. We can thus assume that people are able to discern the differences between emotions and correctly identify what they are feeling. This assumption is crucial since people must be able to discern the difference between two similar emotions, anger and contempt, when making decisions regarding how to handle and react to difficult social situations.

Fischer and Roseman (2007) argue that contempt may be a major driving force in why people exclude other people, but limited research has been conducted on contempt. These researchers argue that the functional distinction between anger and contempt is profound. Anger possesses the social function of attempting to control or correct the behavior of another person, generally through coercive behavior or intimidation typical of an anger expression. Contempt, on the other hand, serves the function of removing a person from one's social network, and thus contempt has the function of motivating one to exclude or reject another individual. We must understand contempt in order to have better grasp of why people ostracize other people; yet, there exists a limited body of research looking at the function of contempt.

Work regarding the hostility triad has looked at contempt as well as disgust and anger as they function in reaction to moral infractions. The Contempt, Anger, Disgust (CAD) Triad hypothesis depicts contempt as an emotion experienced when someone commits a moral infraction against community, which essentially implies they are violating respect, duty, or hierarchy. The moral trigger of anger results against threats against autonomy or individual freedom and rights. Disgust is a morally motivated reaction to violations of purity or beauty

(Rozin, Lowery, Haidt, & Imada, 1999). In this sense, one might discern that contempt, an emotion often connected with looking down on the contempt object, may be accurately paired with failure to conform to social norms (i.e. respect, duty, hierarchy). Anger seems to be motivated by violations of one's sense of control, and, as identified by Warburton, Williams, and Cairns (2006), people who feel like their sense of control has been compromised may aggress in an attempt to reassert their control on the situation.

Social Functionalists have reassessed the hostility triad's moral foundations from a different perspective. One study found that anger, as opposed to moral disgust and contempt, tends to be highly self-relevant, meaning that people experienced anger as a moral emotion only when they felt that the anger event affected them directly. Moral disgust and contempt are emotions both found to label individuals as targets that should be avoided and can form long lasting impressions. The findings indicate that moral disgust and contempt may co-occur to a great extent during instances of moral infractions, though moral disgust occurred to a greater extent. The findings suggest that contempt, unlike disgust, may be a reaction to the perceived incompetence of the other person, and this particular emotion may warn people not to invest time or resources in that particular person (Hutcherson & Gross, 2011).

Previous work has found socio-moral disgust to be a reaction to moral infractions; this research suggests that socio-moral disgust may be a reaction to violations of the body or the disgusting acts themselves instead of the people committing those acts. One study found that when the animalistic (i.e. sexual content, gore, a body being hacked up, etc.) aspects of socio-moral disgust were removed from the more human centered features of disgust (moral infractions only humans can do that do not involve the body, such as racism, hypocrisy, committing treason, etc.) as well as several other types of disgust, people rated animalistic

disgust higher than any other form of disgust. This finding supports the notion that people do not experience disgust toward the individual committing the moral infraction, but they experience disgust toward the moral infraction itself when it violated the body. Though the moral infractions in the human socio-moral disgust condition were potent (e.g. boss commits treason for profit), these types of incidents did not seem to provoke the same degree of disgust as moral infractions that involve killing, maiming, sexual molestation, and spreading diseases all of which violate the body and the precepts of purity (Sparkman, 2012).

Whether people experience moral disgust against the person or the act is an important distinction to make. One study found that participants had a difficult time explaining their reasons for why pedophilia was disgusting. Participants were more able articulate reasons for the experience of anger and fear due to pedophilia than disgust, which often relied on tautological reasons. Contempt had about the same number of articulated and unarticulated responses. Though participants were capable of articulating reasons for disgust when non-body norm violating groups (i.e. feminists and crooked politicians) were presented, they gave around the same number of articulated and unarticulated reasons for bodily violating groups (i.e. prostitutes and voyeurs) were presented, which were substantially less than anger and non-bodily based disgust. Participants provided the same number of rationales for non-body disgust as anger, and the reasons generally provided to explain non-bodily disgust and non-bodily anger referenced harm or violation of rights. Participants were also more likely to use violations of purity as rationales for the body norm violators than the non-body norm violators, and this was found to be highest for bodily disgust (Russell & Giner-Sorolla, 2011).

The findings on socio-moral disgust are not conclusive, and many of the effects of this form of disgust may be confounded with anger, other forms of disgust, violations of the body, and the act itself. Hutcherson and Colleagues (2011) asked participants to rate “how much of each of the emotions listed you feel at the actions/events described” (p. 6), but here they are being asked to rate the action or event and not the emotions that they feel toward the perpetrator of the action, potentially mistaking the action with dispositional attributions for the actor. Furthermore, Hutcherson and Colleague’s (2011) findings also suggest a strong co-occurrence effect between all of the hostility emotions of anger, moral disgust, and contempt making it difficult to parse out the effects of an individual emotion. This being stated, due to non-body related disgust’s close similarity with anger (Russell et al., 2011) and body related moral disgust being stronger than non-body related disgust (Sparkman, 2012), this thesis will argue from the perspective that moral disgust operates more as a reaction to vile body acts than disgust with the person.

In addition to disgust and the other hostile emotions, other discrete emotions have behavioral and functional components associated with them, primarily in response to certain threats. Fear, for example, is an emotion felt in reaction to an immediate physical threat, and exists to protect one’s self from danger. Emotions such as envy, guilt, and pity are emotions generally felt toward other people and they have motivations meant to resolve the threats inherent against the person experiencing that emotion. Anger again appears as a motivator of removing obstacles or barriers, and a common behavioral outcome tends to be aggression with the end result being the restoration of personal control. This research has also identified that certain social groups in society are viewed with different levels of each of these

emotions suggesting these groups are perceived with different levels of threat (Cottrell & Neuberg, 2005).

Threat does not necessarily motivate aggression as earlier work has identified that the desire to aggress against an out-group was primarily a function of perceived power of the in-group and anger toward the out-group. These findings suggest when people feel strong in their in-group and associate more with the in-group (high cohesion), they tend to feel more anger toward the out-group. Contempt was also measured, but contempt was more predictive of a desire to move away from the out-group, as one might expect from an exclusion emotion (Mackie, Devos, & Smith, 2000). This particular finding seems somewhat inconsistent in that prior work has not established high cohesion as leading to out-group aggression or derogation (see Dion, 1973). Perhaps, people who have more powerful in-groups might feel that they have more ability to exert control and correct the behaviors of out-group members.

The focus around control serves as a primary aspect to the functions of the aforementioned emotions of anger and contempt. Anger has a function to restore order and control, specifically in that angry persons aim to correct and alter the behavior of another. Contempt, in contrast, becomes more salient when multiple attempts to correct another's behavior have failed. The argument has been made that contempt may result after multiple anger episodes, while the relationship deteriorates, and the person may then reject or exclude the contempt-target rather than expend further resources in a futile attempt to correct their behavior. Contempt-targets refers to people who are less intimately associated with the person experiencing that emotion, suggesting that different levels of one's desire to correct the behavior of another might be an integral factor in the experience of anger and contempt (Fischer & Roseman, 2007).

Anger may manifest itself in that people are generally more motivated to correct and control the behavior of in-group members than of out-group members. One experiment found that whether or not people attempted to intervene or correct the in-group member's deviation was primarily mediated by whether or not that person thought the deviant would feel shame or embarrassment by being corrected by another in-group member (Nugier, Chekroun, Pierre, Niedenthal, 2009). There may be a particular moral nature to whether or not someone will correct the behavior of someone. This nature may be, as was suggested by Fischer & Roseman (2007), when people believe that they can control the behavior of a deviant, possibly using the emotions of shame and embarrassment as coercive control.

Research has found that embarrassment often follows a social transgression, alerts a person to avoid behaving in the manner that brought about the transgression, and generally leads to the offending party seeking reconciliation (Keltner & Haidt, 1999; Haidt, 2003). Anger can serve as a manner to potentially shame someone, especially if an anger incident occurs in a public setting. If anger's function aims to correct or alter the behavior of a deviant affiliate, anger's social function as a punisher may not operate or serve any other purposes than to shame the deviant. Additionally, in the short term, anger has been paired with aggressive action, but in the long run anger generally leads to reconciliation with the anger object (Fischer & Roseman, 2007), a motivational aspect it shares with shame.

Anger has been typically explained as an emotion that occurs around people close to the person experiencing the emotion more often than strangers or well-known but disliked people. Prior research has found that nearly 29% of the time people reported being angry at a loved one, 24% of the time anger was directed at someone well-known and liked, and acquaintances accounted for another 25% of the time anger tended to occur. Anger against

strangers was only reported to occur only 13% of the time, and anger against well-known but disliked individuals made up only 8% of the reported instances. Moreover, evidence suggests that gender differences, where men receive more anger, tends to be only in the cases of acquaintances and strangers, and these gender differences disappear in the cases of loved ones and friends (Averill, 1983). Furthermore, women in wealthier countries tend to report more of their anger being directed against intimates than against strangers, suggesting potential, gender, socioeconomic, and cultural differences could be important factors in the experience and causes of anger (Fischer, Rodriguez Mosquera, van Vianen, & Manstead, 2004).

Early work regarding anger has traditionally suggested that anger results from feelings of frustration as well as other causes. Early work on anger has suggested that it arises from a physiological arousal attributed to provocative or frustrating circumstances. Other research has attributed anger's cause to frustration, the tension that results from suddenly being unable to proceed according to some plan, to the loss of pride and self-esteem, the violation of personal desires or social norms, and the instigator's causes/reasons for behaving in such a fashion (Averill, 1983).

Instances of anger may be reinforced by the behaviors of the individuals who were the victims of the anger. Targets of anger report that generally the benefits of an angry incident outweighed the consequences nearly 3-1. Nearly 75% of people reported that the angry incident helped them to realize their own faults, near half said the incident helped them to realize strengths and that their relationship with the angry person improved, and near 40% of people reported other positive outcomes. In contrast, only 35% of people reported becoming more distant to the angry person with only 29% reporting losing respect for the

angry person (Averill, 1983). These findings support Fischer & Roseman's (2007) model of anger as being mostly aimed against people already known and close, as well as anger often leading to reconciliation and positive outcomes more often than not.

An angry reaction may occur when someone's social identity has been threatened by an in-group member's deviation from the norms of the group, and this may lead to that person attempting to assert social control over the deviant. Often such a threat is resonant of a fear of being associated with such deviance or wrongdoing being performed by an in-group member (Chekroun & Nugier, 2011). People may be motivated to avoid negative out-group homogeneity biases (Judd & Park, 1988) or possible group attribution errors made based on the deviant (Quattrone & Jones, 1980). For example, when someone belonging to a religion violates the norms or morality of that religion, that community will act to correct and shame the violator so people from other branches of society do not come to see that religion in different way than that in-group sees itself.

People will attempt to correct the behavior of deviants through sanctions to protect their image, and if multiple attempts to correct the deviant fail, the group may opt to eliminate the threat to their group identity by excluding the deviant. People seem keener to control the behavior of in-group deviants in an intergroup context, as opposed to an intra-group context. Also, whether the punishers in the in-group experienced shame due to the deviant was a major factor determining whether the group decided place sanctions on deviant in-group members (Chekroun & Nugier, 2011). In this sense, internalized embarrassment may leave someone feeling out-of-control of a situation as well as frustrated. These feelings may motivate an individual to aggress or lash out against embarrassing deviants.

Whereas anger emphasizes exercising social control, a contemptuous reaction may occur when someone feels that they have less control over a person, particularly a stranger. The scarce literature suggests that the experience of contempt occurs less often in the cases of intimate relationships, and the rationale anchors itself in the belief that contempt's function aims to create a condition of long-term exclusion of the contempt-object (Fischer & Roseman, 2007).

Additionally, research also contends that repeated anger episodes may eventually lead to the experience and behavioral expression of contempt. They explain this phenomenon as resulting from repeated attempts correct disapproved aspects of a person's behavior, yet if multiple attempts to intimidate a person into conforming fail, a person may experience contempt and behaviorally exclude someone (Fischer & Roseman, 2007). Anger could then be experienced alongside contempt, and it is possible that contempt may not develop unless given opportunity to through various anger experiences.

Additionally, Fischer & Roseman (2007) provide evidence that people experiencing contempt often experience negative dispositional attributions toward that person. This may no doubt serve as an aspect of a perceived lack of control, because the negative circumstances of the interaction and the behaviors of that person shall be attributed as an aspect of his/her personality or a function of a person's group. Thus, a potentially annoying or aversive characteristic or behavior of an out-group member might be attributed to that person or his group more readily so than might be attributed to an in-group member, making it easier to devalue that person and/or their group.

Reactions to the Out-group

Out-groups are often excluded for a variety of reasons, but out-group exclusion is not necessarily the same as aggression against an out-group. Research has found the in-group favorability does not significantly predict out-group aggression (Struch & Schwartz, 1989). Dehumanization and moral exclusion of out-groups has been found to be a major contributor to out-group aggression and violence (Bandura, 1990; Struch et al., 1989) Perceptions of inter-group conflict also seem to mediate a relationship between greater out-group aggression; however, much of this effect may still be due to dehumanization that results through conflict and a lessened ability to empathize with the out-group (Struch et al., 1989).

Exclusion of the out-group may not be a byproduct of intergroup aggression, but may instead be a byproduct of social stigmatization and categorization. Evolutionary theory identifies that certain groups of people that possess characteristics deemed undesirable (i.e. disabled people) may become stigmatized by others, and thus ignored and rejected by that society (Kurzban & Leary, 2001; Smith et al., 1997). Researchers claim this may serve an evolutionary purpose, because taking care of such stigmatized people may bear a costly burden that decreases a group's survival capabilities or an individual's own reproduction probabilities (Kurzban et al., 2001). Social exclusion of stigmatized out-group members by an in-group may enhance one's own survival likelihood or reproductive ability. Stigmatization can then be used to label members of a society or tribe that are perceived to threaten the survival of that group.

Despite considerable literature regarding stigma, the literature has not always clearly conceptualized what stigma is and how it plays out in our society. Stigma can be conceptualized as a complex interplay of social labeling or categorization, stereotyping,

social distancing or rejection, status loss, and discrimination all occurring in the context of power. Stigmatized person will often be paired with a negative attribute, which will be generally associated with a particular group in a stereotypic fashion, which leads to people to devalue the stigmatized person and subsequently reject that person (Link & Phelan, 2001). In this sense, stigma serves many of the same functions that Fischer and Roseman (2007) have hypothesized contempt serves, such as devaluing and rejecting a less desirable person.

Contempt has been found play a major role in the perceptions and judgments of stigmatized people. One study found that non-stigmatized confederates with normal childhoods received the lowest intensity and durations of electric shocks compared to stigmatized and deviant group members of some form. The stigmatized participants were rated as performing worse on a task and the combined effort was seen as less effective. Furthermore, participants reported less willingness to associate with the stigmatized person and were also more likely to express disliking this person. This effect was also true when the stigmatized person was mentally ill though the treatment of those confederates was not as harsh as someone depicted as normal but with a bad childhood. Thus, participants may be able to treat stigmatized people less harshly while still maintaining contempt for them (Farina, Holland, & Ring, 1966).

Chronic stigmatization, such as persists for more disenfranchised groups such as women, can also affect how likely people are to perceive anger and contempt being displayed on a face. One study found that women were thought that male faces displaying contempt or anger were seen as more rejecting than female faces that did the same. Women who were higher in stigma consciousness tended to see the emotion of contempt on computer generated faces for a longer period of time compared to low perceivers of stigma and men. These

results suggest that members of a more stigmatized group, such as women, may tend to experience more contempt and are thus more sensitive to its expression when high in awareness for the stigma. This finding can be contrasted with the finding that women were not more sensitive to seeing anger than men; anger does not represent a prejudicial emotion though it has been labeled a rejecting emotion (Inzlicht, Kaiser, & Major, 2007).

Rejection has been found to be a common side effect of stigma, and a large part of this may fall on moralistic attributions such as personal responsibility of the stigmatized individual. One study suggests that the amount of distance that people wish to place between themselves and stigmatized people with mental illnesses can be attributed to both the disorder and the extent to which it is dangerous, rare, and the person can be held responsible (Feldman & Crandall, 2007). In this sense, rejection of a stigmatized person can be attributed to moralistic foundations such as what extent the person can be blamed for their own illness. Fischer and Roseman (2007) found that dispositional attributions predict contempt but not anger. Based on this model, those who are seen as having more personal blame for their predicament may be more stigmatized and ostracized.

In line with how more dangerous illnesses tend to be stigmatized more, people also tend to be more threatened just being around stigmatized people. Prior research suggests that participants tend to display cardiovascular and behavioral signs of threat in situations where they worked with a stigmatized confederate compared to a non-stigmatized confederate. This effect was more pronounced when the individual had two stigmatized attributes, and the effects of stigma were threatening for stigmas surrounding physical, racial, and social domains. Despite physical signs of threats participants rated their interaction with the stigmatized persons more favorably than the interactions with non-stigmatized persons; these

effects were mirrored by the participant (Blascovich, Mendes, Hunter, Licker, Kowai-Bell, 2001).

The following section establishes that people may react to others that they view as out-group members with stigma, which would set it apart from verbal or physical aggression and rejection. People tend to avoid contact with stigmatized out-groups and attempt to place social distance between themselves and the rejection target. In so far as research has supported contempt's role in stigma and how people distance themselves partly based on personal responsibility of the stigmatized person, people may react to members of other groups who deviate from societal standards, who can be held responsible for the deviation, with stigma and social distancing. This suggests that contempt may play a major role in stigma, and that people will tend to experience stigma and contempt against out-group deviates but not in-group deviates.

Reactions to the In-group

Though in-groups do rely on some deviation, generally there is considerable influence and pressure from the group to conform to norms; those that refuse to conform are often labeled deviants. Research suggests that people are generally attracted to people who are similar to them and may be more apt to consider those different from the majority of the group as deviants. A deviant may earn their status in several different fashions such as not participating in group activities, being dogmatic and opinionated, have different opinions or philosophies than the group, assuming a leadership role, or different coalitions within the group may be seen as deviants (Pendell, 1990).

Perceptions of homogeneity and group cohesiveness have been found to generally yield a more inclusive reaction to deviants. Deviants, whose opinions deviated intractably

with other members of the group, generally had large portions of the conversation directed toward them which continued throughout the duration of the study generally until 35 minutes in. Although the communication between deviants was often hostile and harsh, the deviant members of the group were still considered part of the group the majority of the time. Generally, cohesive and homogenous groups tended toward this type of inclusive reaction to member deviants. There were some deviant participants after 35 minutes had passed who tended to be ignored more and were communicated to substantially less by the group, which represented an exclusionary reaction (Emerson, 1954; Festinger & Thibaut, 1951; Mills, 1962). Evidence also exists that an exclusionary reaction may be more likely when groups are viewed as very heterogeneous as opposed to homogenous (Festinger, Pepitone & Newcomb, 1952; Festinger et al., 1951).

The type of reaction that an in-group member receives may be in part based on what kind of deviate they actually are. One study found that participants that deviated on an important opinion under discussion tended to be communicated to more highly than those who conformed to the opinion. The attempt behind the communication was intended to change the opinion of the deviate. In the same study, however, participants that deviated from the normal role (i.e. being a political liberal or a bigot among college students) actually tended to be communicated to considerably less in order to avoid confrontation by either party. This remained true even when the role deviant agree with the opinion being discussed (Sampson & Brandon, 1964). Effectively, the opinion deviates tended to receive an inclusionary reaction where the role deviates (or out-group members) received an exclusionary reaction.

Direction of change and the timing of attitudinal change can be very important determinants of the acceptance of group members. One study found that those who went from neutral to strong disagreement on an issue were disliked the most along with those consistently disliked by the participant. Conformity played a major role as well since players who strongly disagreed tended to be less liked than those who agreed in the end regardless of their starting position. Participants who consistently deviated received the greatest level of communications with those in constant agreement receiving the least. Also, participants attributed changes from neutral to strongly agree or strongly disagree to strongly agree to the influence of their notes as the second most important factor behind belief in the opinion (Levine, Saxe, & Harris, 1976). This means that people view their own influence or control over a deviates behavior to be an important factor in change and may explain why more communication was directed to them.

Timing of dissent and one's interpersonal style in dissenting are all important factors to keep in mind when understanding the effects of intra-group rejection. One study found that participants who voiced dissent latter in the discussion were often more disliked than those that voiced their dissent earlier (Kruglanski & Webster, 1991). Earlier work has also found that being informed on the subject, supporting one's position with evidence, and using disclaimers tended to improve the opinion of the deviate in the eyes of the majority than those who did not utilize the same style, though it did little to alter majority opinion (Thameling & Andrews, 1992).

Recent research has examined the effect of the black sheep effect, which happens when people judge unlikable in-group members more harshly than similar out-group members. This research has established that unlikable in-group members are often rated as

less socially attractive than likeable in-group members and also less desirable than unlikeable out-group members. Additionally, this research has found that the judgment for both in-group and out-group members was partially determined by the relevance of the norms that the group members either adhered to or deviated from. In-group members who deviated from relevant norms were judged more harshly for both in-group members who conformed and out-group member who conformed or deviated. In contrast, the irrelevant norm deviants were rated about the same with the exception of out-group deviants who were rated slightly more negatively. These findings suggest that social judgment relates to the relevance of a set of norms to one's social identity (Marques & Paez, 2011).

The above section described the almost counter intuitive notion that people may be more inclined to aggress against members of their own groups when they deviant than out-group members who behave similarly. People are more likely to take action against deviate in-group members (Chekroun & Nugier, 2011), and this may be partially associated with anger. The studies mentioned above suggest that though the in-group member may experience hostile language and sanctions, they generally remain, in the eyes of the group, a group member. This notion supports the arguments of Fischer & Roseman (2007) who suggested that though anger leads to aggression more often toward close friends and family, anger and its aggressive behavioral manifestations are often not permanent and do not result in the termination of the relationship or group affiliation.

Rationale

Although prior work has examined peer victimization (Ranta et al., 2002; Salmivalli et al., 1998), the body of research examining the causes of social rejection has been restricted in its range and scope. The proposed project aims to examine potential causes for rejection by

empirically testing a theory proposed by Fischer and Roseman (2007) that discusses potential social functions for the emotions of anger and contempt. One of the central tenets of this theory suggests that contempt may motivate people to exclude or ostracize others (i.e. pretend the rejection object does not exist). In contrast, anger may motivate people to aggress against other people in an attempt to coerce that person but seems to rarely lead to a relationship dissolving.

Whereas anger occurs more around close others (Averill, 1983), contempt occurs more around strangers (Fischer & Roseman, 2007). This suggests that in-group and out-group effects may help control for cohesiveness and a sense of control over group members. The in-group favorability bias establishes that people tend to rank members of their own group more likeable than out-group members (Dion, 1973). This being the case, it may well be that in-groups mimic the effects of close groups of family or friends in that they perceive themselves to have a greater level of control and influence over in-group members (Nugier et al., 2009), which is in line with Fischer & Roseman's (2007) theory of anger. Since people partially establish their identities through their relationships with others, behaviors of in-group members can negatively affect people's sense of self unlike the behaviors of out-group member (Chekroun et al., 2011). In this manner, in-groups also mirror the effects of close friends in that they can establish a sense of self which can be affected by the actions of friends or relatives. Anger may, however, be only one motivator of social control as prior research has suggested that the desire to exert social control may also be motivated by experiencing shame for an in-group member's deviant behavior (Nugier et al., 2009).

In contrast to the effects of in-groups, out-groups are similar to strangers in that out-group members are more often seen as acting homogeneously (Judd & Park, 1988) and are

more likely to have the assumed attributes of the group (Quattrone & Jones, 1980). This leaves room for dispositional attributions to be more effectively applied to out-group members as any deviance to social standards can be attributed to their out-group membership. As Fischer & Roseman (2007) highlighted, the ability to control or influence out-group members is seen as sufficiently less, and this notion finds support in research on the affective forecasting bias which suggests that people anticipate less common interests with out-group members (Mallet et al., 2008).

The rationale for why inter-group dynamic effects may lead to differences in anger and contempt can be rooted in perceived control or influence over the players. As discussed, people who experience anger tend to do so believe that they can control or alter the behavior of friends, family, or in-group members. When the perception of control fades or does not pervade, people may be more inclined to experience contempt in reaction to the violation of societal norms (Fischer & Roseman, 2007). In this respect, participants should be more likely to experience anger against in-group members as opposed to contempt due to a perceived sense of control or influence over their behavior, whereas contempt will be felt to those who cannot be controlled, leading to ostracism.

Hypotheses

Several hypotheses were proposed based on the review of the literature. It was hypothesized that participants would throw less often toward participant's, regardless of group membership, who deviate from standard norms of conversation, such as bringing up inappropriate first conversation topics like porn (Hypothesis 1). Though deviant player may receive less throws overall, deviant out-group members will receive the lowest number and will be significantly different from in-group deviants (Hypothesis 1A). Also, out-group

adherents will receive less throws than in-group adherents, but they will presumably receive more throws than in-group or out-group deviants (Hypothesis 1B).

It was also hypothesized that participants would display more contempt toward out-group deviants than toward in-group deviates or adherent players. This would be reflected in higher levels of endorsing contempt, indicating more negative dispositional attributions for out-group deviants, and having less predicted and desired control over the behavior of out-group deviants compared to in-group deviants (Hypothesis 2A). In contrast, participants should display greater anger toward in-group members who deviate compared to out-group deviants or adherent players. This should correspond to higher endorsement of anger affectation and more desired control over the in-group deviant than the out-group deviant, but the participant should display the same dispositional attributions or exclusionary behavior as a contempt reaction (Hypothesis 2B).

Overview

The proposed experiment had participants play an online hand tossing game with other players whom they believed to be fellow participants at other universities, but, in actuality, the other players were computer drones and all dialogue between other players were run by two confederates. Using a 2(group affiliation: in-group, out-group) X 2(target player behavior: deviant/annoying; neutral/control) research design, participants were assigned to one of four conditions based on the other two players. One of the two players was always be a norm observing in-group member, but in the other four conditions the other participant may be 1) an observant in-group member, 2) an observant out-group member, 3) a deviant in-group member, or 4) a deviant out-group member. Participants were hypothesized to throw less often out-group members who deviate from proscriptive norms than in-group

member who behave the same. Participants may be less likely to pass to out-group members due to the in-group favorability bias (Dion, 1973), so out-group members may receive the ball less in-group members. Still, the amount a deviant out-group member receives the ball was likely considerably less than the amount the observant out-group member receives the ball.

In terms of the content of the dialogue and emotions felt to the different players, the status and behavior of the players may be critical in moderating the feelings and behaviors of the participant. Deviant out-group members may receive a higher degree of scorn or contempt than other players, but deviant in-group members may receive the highest amount of anger and verbal aggression. Observant in-group members should tend to be seen with the smallest amount of anger and contempt, whereas even observant out-group members may be viewed with slightly more contempt than observant in-group members though considerably less than the deviant out-group member.

Chapter Two: Method

Participants

Twenty-seven Participants were recruited through the Sona-System (an online research tool) at Eastern Michigan University. Two participants were excluded from the analyses due to experimenter error. There were a total of 10 men and 17 women who participated in the study. Participants were run through the experiment from January 2014 through June 2014.

Procedure

Participants first made an appointment for when they could come to the lab to participate in the experiment in-person. Using an online survey accessed from a computer in the lab, participants completed an initial online survey containing some initial measurements and the informed consent. Participants gave their consent to participate in the study by selecting the option of “I consent to participate in this study.” Those who did not give their consent to participate selected the other option of “I do not consent to participate in this study” and were then thanked for their interest and did not answer any questions on the survey nor participate in the rest of the experiment.

Once participants gave their consent they were able to complete the rest of the survey which contained demographic questions (i.e. sex, race, age, political orientation, religious attendance, college major, and years in college), a ten item personality inventory for five factor model of personality (see Muck, Hell, & Gosling, 2007), a Guilt and Shame Proneness Scale (GASP), and a brief questionnaire asking questions about how much participants express or receive contempt (Crowley, 2013), and several items aimed at measuring proneness to anger. Additionally, participants were asked to complete two items: 1) regarding

willingness to join certain groups, 2) preferred music (for survey measures see Appendix A). These introductory measures served to confirm to the participant that they are being compared to someone who has similar or different beliefs/interests to them based on based on similar group interests. Participants were always told that in-group members had approximately 80% similar personalities and interests to themselves, based on the surveys they just completed, whereas out-group members had only a 20% similar personality.

After completing the online survey, the confederates for the particular experiment condition were able to access the participant's responses to the variables of interest, group affiliation and music preference, online. During this portion of the experiment, the confederates presented an online persona of the other players and started a conversation about which groups participants liked and their taste in music. Participants were given ten minutes to talk to confederates (pretending to be two other participants in other labs in the building) through Google hangout, an online chat room. Participants were told that all players were given dummy or fake names to protect their confidentiality, which the confederate names were always Pat (target) and Jessie (control), and all of the characteristics (i.e. gender, race, etc.) regarding the confederates was implied.

Depending on the condition, the target confederate either identified with the participants group or music genre or did not identify with it. An example of this may be when a participant identifies with student government the in-group member of the game said something like, "Oh really, that sounds like a lot of fun I've been thinking about joining." An out-group member would express dissent by saying something like, "Ugh, I wouldn't want to join student government, it sounds like too much work and not enough fun." In this sense, the

confederate confirmed the false feedback given to the participants about their similarity to the other players.

After completion of the survey, the experimenter left the room to tell the under the pretense of making sure the other labs were prepared to begin. Half of the participants were told that they were matched to two participants based on similarity of interests and personality. These participants dealt with two in-group players (identified with same interests) and may have played with one neutral player and one deviant player (in-group deviate condition) or they would have played with two neutral in-group players (in-group adherent condition). In contrast, the other half of the participants had one player that is an in-group member (i.e. similar interests and personality) and one out-group player (i.e. dissimilar interests and personalities). Half of the time the out-group member's behavior was aversive (out-group deviate), and the other half of the time it was be neutral (in-group adherent). Confederates behaved normally and cordially during this first ten minute period of time, but the scripts for confederates did differ depending on whether they were in an adherent or deviant condition (see Appendix B for confederate script).

After this initial ten minute period, participants were told that they would now play a game of online hand ball with the two individuals that they just chatted with. Cyberball (see Williams, Yeager, Cheung, & Choi, 2012) is an online research manipulation where a participant throws to two other players (by clicking on their names) in the game. These other players were computer controlled by the computer based on game scripts. The game scripts were set such that the computer players attempted to throw to the other players an equal amount of the time. The game lasted until 90 throws had been made. Participants were asked to continue talking to the other participants throughout the Cyberball game using Google

hangout. In order to make one of the confederates aversive or offensive, the confederates made scripted statements that included phrases and statements that are generally deemed socially inappropriate. For instance, a deviate confederate might ask “Do any of you not like porn?” whereas an adherent confederate might ask something like “Do any of you like action movies?” Confederates brought up four topics/statements in conversation.

After completing the game, participants were asked to complete a small measure designed to assess their attitudes toward one of the other players in the game. This survey (see Appendix C) is primarily intended to assess to what extent the participant felt anger and contempt toward the target player (pat) as a function of condition. The survey also assessed participants’ attributions of target player, the degree of intimacy and perceived influence/control, the emotivational motives, and the behavioral manifestations of the emotions. In order to measure the key emotion variables, participants were asked the degree that they felt anger toward each player individual by indicating their agreement with the following questions such as “To what extent did this player make you feel angry? To what extent did you or did you want to confront this player about your negative feelings about him/her? To what extent did or did you want to express criticism of this player? ” Participants indicated their agreement using a 10-point Likert scale (1 = not at all; 10 = extremely).

In order to measure the degree that the participant felt contempt toward each player, they indicated their agreement with some of the following questions “To what extent did this player make you feel disdain or scorn? Based on this exercise, I would not want to be associated with this individual? I would have great difficulty accepting this person into one of my social groups?” Participants again indicated their agreement using a 10-point Likert

scale (1 = not at all; 10 = extremely). Participants were also be asked a number of other similar questions, using the same scale, designed to assess Fischer & Roseman's (2007) model of contempt/anger, such as "To what extent do you feel you could influence this person? The way this person behaved is just due to how this person is? To what extent did you or did you want to express disgust toward this person?"

Finally, participants were asked to write a brief paragraph long critique of the other players. In this critique, the participants will be asked to evaluate the positive and negative attributes of one's interpersonal communication style: highlighting the good qualities and bad qualities about how the other person talked with them over instant messaging. Participants also received a critique of them from the target player (confederate) assessing the same qualities, though these critiques were rather mild/superficial as to not severely offend the participant. After this point the participant was given the option to respond to only one of the players based on the participant's choosing. After submitting the response to a player's critique, the participant was debriefed by the experimenter about the nature of the experiment.

Chapter Three: Results

The analytic plan for the data collected in the experiment follows first by running univariate analyses of variance (ANOVAs) (on several key items which tested the hypotheses of the experiment. After these tests, composite variables were tested based on principle components analysis and theory to devise eight variables which accurately represent the content of the scale. The researcher then went on to test the data using focused contrasts on each of the four conditions created by the research design.

Initial Hypothesis Tests

In order to test hypotheses 2A and 2B, whether participants felt more contempt toward out-group deviants compared to the other conditions (hypothesis 2A) and that participants felt more anger toward in-group deviants compared to other conditions (hypothesis 2B), a series of ANOVAs were conducted. It was proposed that the emotions felt toward deviant individuals would largely be moderated by their group membership. Thus it was hypothesized that people would demonstrate greater contempt (more contempt emotion, lack of control, and negative dispositions) toward out-group deviates compared with the rest of the conditions (hypothesis 2A). It was also hypothesized that participants would display greater anger (more anger emotion, greater desire to control and act to control) toward in-group members than any other condition (hypothesis 2B). The first univariate ANOVAs revealed no main effects or interactions in participants reported levels of contempt, $F_{s<(1, 21)} = .885, p = .358$, based on condition, nor were there any significant differences in reported levels of anger, $F_{s<(1, 21)} = 1.199, p = .286$, between the difference conditions. Thus, these results do not support the hypotheses of the experiment.

It had also been hypothesized that participants would tend to throw less toward deviant participants and even less so when that deviant was considered an out-group member. Unfortunately, it was not possible to test hypothesis one: that deviant participants would be thrown to less, due to excessive crashes in the software program used to record the data, which resulted in many missing cases. These missing cases, which accounted for close to half of the cases run in the experiment, was deemed to be too substantial an amount of attrition to continue with these analyses as planned. Thus it was not possible to assess hypotheses 1, 1A, and 1B.

Several other items were assessed using univariate ANOVAs regarding perceived control and dispositional negative attributions (to test hypotheses 2A and 2B), including “To what extent do you feel you could influence this person,” “To what extent did you feel that what you said mattered to this person,” “To what extent did you feel that you could not change this person’s behavior,” “This person is annoying and irritating,” and “This person is selfish and inconsiderate?” Each of these analyses except one failed to show any significant effects (see Table 1). Only two of the items was found to be marginally significant. In response to the item “To what extent did you feel that what you said mattered to this person,” there was a marginally significant interaction, $F(1, 21) = 3.933, p = .061$, whereby participants were less likely to believe that what they said mattered to out-group deviant players ($M = 2, SD = .984$) compared to the other conditions. This was confirmed by using the 95% confidence interval. There were no significant main effects for this item, $F_s < (1, 21) = 2.416, p = .135$. This result supports one part of the experiment’s hypothesis; people will tend to perceive less control over out-group deviates than other groups (see Table 2 for means and standard deviations by condition).

Table 1

Null Hypothesis Tests

	Independent Variables	Degrees of Freedom	<i>F</i>	<i>P</i>
To what extent do you feel you could influence this person?	Group Affiliation	1	.001	.970
	Target Player	1	.336	.568
	Behavior	1	.181	.675
	Interaction Effects			
To what extent did you feel that you could not change this person's behavior?	Group Affiliation	1	.024	.879
	Target Player	1	.080	.781
	Behavior	1	.080	.781
	Interaction Effects			
This person is selfish and inconsiderate?	Group Affiliation	1	.073	.790
	Target Player	1	2.771	.111
	Behavior	1	.108	.746
	Interaction Effects			

Table 2

“To what extent did you feel that what you said mattered to this person?” By Condition

(Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	4.333 (.898)	5.143 (.831)
Out-Group Member	4.714 (.831)	2.000 (.984)

There was also a marginally significant effect of target player behavior on the item “This person is annoying and irritating,” $F(1, 21) = 4.19, p=.053$. This finding suggests that participants tended to see deviant players as more annoying ($M=4.471, SD=.804$) than adherent players ($M=2.202, SD=.764$). There was no effect by group affiliation, $F(1, 21)=.396, p=.536$, and no interaction effect, $F(1, 21)=.001, p=.971$. This finding partially supports hypothesis 2A in that deviant players tended to be viewed as more annoying, but not as a function of group membership or group membership and target player behavior. The result does, however, suggest the effectiveness of the script items used by the confederates to create adherent and deviant target player behaviors (see Table 3 for means and standard deviations by condition).

Table 3

“This person is annoying and irritating?” by Condition (Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	1.833 (1.121)	4.143 (1.833)
Out-Group Member	2.571 (1.037)	4.80 (1.227)

Principle Components Analysis and Variable Creation

In order to understand the data utilizing more complex methods than analyzing each individual item, additional steps were taken to analyze the data from the post-cyberball survey given to the participants. An internal reliability analysis was conducted on the 34 items in the scale, which yielded sufficient reliability, $\alpha = .837$. Given the high level of internal consistency found in the survey designed to assess multiple aspects of both anger and contempt, it was decided to break down the scale into its theoretical components. A principle components analysis was used to understand the best fitting number of factors that accounted for a majority of variance. From this analysis, five factors were extracted which together accounted for a little more than 74% of the variance in the scale.

Relying on the number of factors suggested by principle components analysis, the 34 items on the scale were divided up into five factors based on the theoretical function and nature of the items instead of the statistical values provided by the analysis. The five factors that were decided upon were emotions experienced regarding target player, behavioral

intentions toward target player, control over target player, attributions for target player, and similarity/liking of target player. After the similar items were grouped into the best corresponding factor based on theory, principle components analyses were conducted on the items to understand how these items related to each other and how many factors/variables might be discerned from each of the five groups. To compute the variables listed below, the researcher took the mean response values of each of the items that made up the variables and averaged them together to find the average response for the variable.

There were five emotion items, and a principle components analysis revealed that there were two factors that accounted for nearly 76% of the variance. Using varimax rotation, the analysis identified three items that were closely associated with the first factor, which was labeled *Experienced Emotions* (see Table 4 for mean responses by condition). The items in this scale are “To what extent did this player make you feel angry,” “To what extent did this player make you feel disdain or scorn,” and “If something bad happened to this person, I would be very upset?” The second factor (see Table 5 for mean responses by condition) extracted from these items was labeled *Emotions Anticipated*, and this factor contained two items which were “To what extent do you think you would be angry at this player in several days,” and “To what extent do you think you would be disdainful of this player in several days?”

Table 4

Experienced Emotions by Condition (Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	3.2222 (.80737)	3.5714 (1.62975)
Out-Group Member	3.7619 (2.10567)	3.6667 (1.68325)

Table 5

Anticipated Emotions by Condition (Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	1.9167 (1.28128)	2.5714 (1.81265)
Out-Group Member	1.1429 (.37796)	1.4000 (.89443)

There were thirteen items that assessed behavioral responses or desired responses. Principle components analysis found two factors for this portion of the scale; however, the second computed factor accounted for only 10% of the variance while the first factor accounted for nearly 62% of the variance. Furthermore, varimax rotation revealed that only one of the items correlated strongly with the second factor only, which was “If you had another opportunity to work with this player, to what extent would you want to talk out your differences?” Due to the low variability explained by the second factor, the item containing reference to talking out differences was dropped from this component of the scale and a

single variable, labeled *Behavioral Responses*, was computed using the other twelve items (see Table 6 for means responses by condition).

Table 6

Behavioral Responses by Condition (Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	2.2424 (1.24205)	4.3506 (1.76859)
Out-Group Member	3.0000 (3.12327)	4.5818 (2.55323)

These are the items on the Behavioral Responses subscale: “There were things that this person said that made me want to stop talking to them,” “If I met this person in a class, I would not want to sit near this individual,” “If I met this person in a class, I would not want anything to do with this individual,” “If I had to play another game, I would rather not play with this person,” “I would have great difficulty accepting this person into one of my social groups,” “To what extent did or did you want to express criticism of this player,” “To what extent did you or did you want to confront this player about your negative feelings about him/her,” “To what extent did you or did you want to use unfriendly remarks toward this person,” “To what extent did this player make you want to just walk away or stop playing this game,” “To what extent did you or did you want to simply ignore this person,” “To what extent did you or did you want to express disgust toward this person?”

The third component of the post-cyberball survey assessed the attributions that were made with regard to the target individual. Principle components analysis was used on the five

attribution items and two factors were uncovered that accounted for nearly 76% of the variance of the items. The first factor that was taken out of these items was labeled *Negative Attributions* (see Table 7 for mean responses by condition). Varimax rotation determined that three items strongly correlated with this particular factor. The items in this subscale are “This person is worthless,” “This person is annoying and irritating,” and “This person is selfish and inconsiderate.” The second factor was labeled *Dispositional Attributions*, and two items were strongly associated with this factor (see table 8 for mean responses by condition). The items in this subscale are “I could not change this person’s behavior, because this is just how they are,” and “What this person said can primarily be attributed to their personality?”

Table 7

Negative Attributions by Condition (Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	1.6111 (1.20031)	2.9524 (1.32537)
Out-Group Member	1.7619 (1.73967)	3.2667 (2.04668)

Table 8

Dispositional Attributions by Condition (Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	5.8333 (3.04412)	7.5000 (2.02073)
Out-Group Member	6.6429 (3.24954)	7.6000 (2.21923)

The degree of control, both perceived and desired, over another person was the fourth component of the post-cyberball survey. Principle components analysis reveals that when broken down the six control items yielded two factors that together accounted for around 70% of the subscale's variance. The first factor was labeled *Control Desired*; varimax rotation revealed that four of the items were closely associated with this subscale. The items included on this subscale are "There were things this person said that I wanted him/her to apologize for," "There were things this person said that I wanted him/her not to say again," "There were times I wanted this person to know that he/she had said something that went too far," and "To what extent did you feel that you could not change this person's behavior?" Due to being negatively phrased, the last item was related to the rest of the subscale in a negative manner, such that higher levels of perceived inability to control one's behavior correlated negatively with a desire to do so (see Table 9 for mean responses by condition). The other control factor was labeled *Control Perceived*, and varimax rotations revealed two items closely associated with this factor are "To what extent do you feel you could influence this person" and "To what extent did you feel that what you said mattered to this person?" The two subscales did not correlate with each other (see Table 10 for mean responses by condition).

Table 9

Control Desired by Condition (Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	2.2083 (.88624)	5.0714 (1.97755)
Out-Group Member	2.8214 (2.61691)	3.1000 (2.06610)

Table 10

Control Perceived by Condition (Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	3.9167 (1.93434)	4.7857 (2.30682)
Out-Group Member	4.2857 (2.27041)	3.0000 (1.54110)

Control Desired included an item which suggested that a perceived inability to control another's behavior correlated negatively with desiring control; however, there was no correlation between perceived control and desire control. Since participants saw these in-group deviants as being more similar to themselves than any out-group members, adherent or deviant, it may be that the participants did believe that they could control the behavior of the target player. Though the results did not show any differences in perceived control across conditions, it may be that the small sample size was not sensitive enough to capture differences in perceived control.

In addition, principle components analysis was conducted on four items designed to assess pre and post impressions of similarity and interaction quality. The results of this analysis provided only one factor which accounted for nearly 66% of the variance of the items. The four items had a strong Cronbach's alpha coefficient of .831 (see Table 11 for mean responses and standard deviations by condition). Due to these analyses, the four items were computed into a final subscale labeled *Similarity and Liking Perceived*. The items on this subscale are "How similar did you think you would be to participant before you played the online game," "How much did you think you would get along with this participant before you played the online game," "After playing the online game, how similar did you think you were to this player," and "After playing the online game, how much did you think you got along with this player?"

Table 11

Similarity and Liking Perceived by Condition (Standard Deviations in Parentheses)

	Adherent Player	Deviant Player
In-group Member	5.9583 (1.47832)	5.6071 (2.03028)
Out-Group Member	4.7857 (2.16712)	3.2500 (1.99217)

Univariate Analyses of New Variables

After the variables were created using the mean response value, or the mean value indicated on each subscale's items, a series of univariate analyses of variance (ANOVAs) were conducted to examine the effects of in-group/out-group membership, deviant/adherent

behavior, and the interaction between these two independent variables. Though many of these analyses did not reach conventional or marginal levels of significance (see Table 12 for list of ANOVA results), some of these subscales did corroborate the original hypotheses of the experiment. A significant effect was observed between group categorization and perceptions of similarity and liking of the target player, $F(1, 21)=5.031, p = .036$. This indicates that participants generally thought that in-group players were more similar to themselves ($M=5.77, SD=1.73$) compared against out-group members ($M=4.14, SD=2.15$). There were no effects for similarity based on target player behavior or any interaction effects. This finding suggests that the experimental assignment to in-groups and out-groups had the desired effect (see Table 11 for mean responses and standard deviations by condition).

Table 12

ANOVA Results for New Composite Variables

	Independent Variables	Degrees of Freedom	<i>F</i>	<i>P</i>
Emotion Experienced	Group Affiliation	1	0.227	0.639
	Target Player	1	0.036	0.851
	Behavior	1	0.111	0.742
	Interaction Effects			
Anticipated Emotions	Group Affiliation	1	3.809	0.064*
	Target Player	1	0.837	0.371
	Behavior	1	0.159	0.694
	Interaction Effects			
Behavioral Responses	Group Affiliation	1	0.283	0.600
	Target Player	1	3.946	0.060*
	Behavior	1	0.080	0.780
	Interaction Effects			
Negative Attribution	Group Affiliation	1	0.132	0.720
	Target Player	1	4.951	0.037**
	Behavior	1	0.016	0.900
	Interaction Effects			
Dispositional Attribution	Group Affiliation	1	0.173	0.682
	Target Player	1	1.1440	0.243
	Behavior	1	0.105	0.749

Interaction Effects				
Control Desired	Group Affiliation	1	0.694	0.414
	Target Player	1	3.714	0.068*
	Behavior	1	2.513	0.128
	Interaction Effects			
Control Perceived	Group Affiliation	1	0.709	0.409
	Target Player	1	0.061	0.807
	Behavior	1	1.641	0.214
	Interaction Effects			
Similarity and Liking Perceived	Group Affiliation	1	5.031	0.036**
	Target Player	1	1.438	0.244
	Behavior	1	0.567	0.460
	Interaction Effects			

*= $p < .1$ **= $p < .05$

Another group level analysis of variance revealed a marginally significant effect of group on anticipated emotions, $F(1, 21)=3.809, p=.064$. This effect (see Table 5 above) suggests that participants tended to forecast experiencing greater levels of anger and contempt toward members of their in-group ($M=2.27, SD=1.56$) than an out-group ($M=1.25, SD=.62$). There were no significant effects of target player behavior or significant interaction effects. This effect suggests that participants may be more inclined toward enduring negative affect toward those in their own group. Though this runs counter to the theoretical design of Fischer and Roseman (2007), who suggested that contempt should be longer lasting and

anger should be short term and against close others, this effect may demonstrate a lack of willingness to engage on the part of the participants.

Several results were found using ANOVAs and the new variables that serve as manipulation checks and demonstrate the viability of the methods used to induce perceived group membership and adherent and deviant target player behaviors. There was a significant effect of target player behavior and the amount of negative attributions of the target player the participants endorsed, $F(1, 21)=4.95, p=.037$. This suggests that participants tended to view the character of a deviant person as being more negative ($M=3.1, SD=1.58$) than someone who behaved normally ($M=1.7, SD=1.45$), regardless of group affiliation. This finding suggests that people were viewed negatively due to how they behaved and not necessarily as a function of simply whether they were viewed as similar or dissimilar.

Other analyses reveal the nature of the target player's behavior and whether they decided to act and attempt to control the other player. An ANOVA revealed that the behavior of the target player tended to affect the degree that people desired to control the behavior of the target player at a marginal level, $F(1, 21)=3.946, p=.06$. This finding suggests that people desired greater levels of control over a player when they engaged in deviant behavior ($M=4.25, SD=2.17$) compared to when they behaved normally ($M=2.54, SD=1.96$). Furthermore, the behavioral responses taken or desired were also affected marginally based on the target player's behavior, $F(1, 21)=3.946, p=.068$, such that participants tended to want to act against or criticize the deviant player ($M=4.45, SD=2.02$) more than the adherent player ($M=2.65, SD=2.38$). This supports the hypotheses of the study in that it shows participants tended to want to confront the target player on some perceived flaw when they were deviant instead of when they were adherent, suggesting that participants found the

deviant participants objectionable (see Table 9 for mean responses and standard deviations by condition).

Alternative Analyses of Group Difference

Unfortunately, there were no significant interaction effects found using univariate analyses of variance. Part of the lack of findings here may be partially due to the small sample size obtained in the study. In order to further examine the any potential effects based on group and target player behavior combinations, a series of focused contrasts in a one-way analysis of variance were set up to compare certain conditions against each other. The first contrast compared the out-group deviant condition (-3) against the other conditions (1 for each condition). The next contrast compared the deviate conditions against each other using 1 for the in-group deviate condition and -1 for the out-group deviate condition (0 for the other conditions). The third contrast compared the in-group deviate condition (-3) against the other conditions (1 for each condition). The next contrast compared the in-group adherent condition (1) against the in-group deviate condition (-1). The fifth contrast compared the out-group adherent (1) condition against the out-group deviate condition (-1). The final contrast compared the in-group adherent condition (1) against the out-group adherent condition (-1). Table 13 contains all of the contrast coefficients, and Table 14 (end of section) contains the value of the t contrasts for the different focused contrasts and their corresponding standard errors.

Table 13

Coefficients used in Focused Contrasts in a One-way ANOVA

Condition	Contrast 1	Contrast 2	Contrast 3	Contrast 4	Contrast 5	Contrast 6
In-group Adherent	1	0	1	1	0	1
In-group Deviant	1	1	-3	-1	0	0
Out-group Adherent	1	0	1	0	-1	-1
Out-Group Deviant	-3	-1	1	0	1	0

The most substantial effect consistent with the rationale of the experiment regarded the variable of control desired. In line with the rationale of the experiment, participants desired to control the behavior of a deviant in-group (-3) member far more than any other group (weights of 1 for each other condition) when assuming equal variances, $t(21)=2.62$, $p=.016$. Furthermore, the results suggest that people tended to desire more control over in-group members when they were deviates (-1) than when they were adherent (1), $t(21)=2.55$, $p=.019$. These results suggest the viability of the hypothesis that people would desire to control the behavior of a deviant individual more when this person was considered similar to them or part of their own group, a hypothesized function of anger (see Table 9 for mean responses and standard deviations by condition for Control Desired).

Other marginal effects were uncovered through the focused contrasts. The focused contrasts again demonstrated, assuming equal variances, that people tended to view the out-group deviate player (-3) as less similar than the other groups (1 for each group), $t(21)=2.26$, $p=.035$. Also there was a marginal effect where people tended to view the in-group deviate (1) as more similar to themselves compared to the out-group deviate (-1), $t(21)=2.066$, $p=.51$. These results support the notion that people tended to view the out-group deviate as being less similar to them than the other condition and even compared against the in-group deviate condition, suggesting a combined role of group assignment and target player behavior in perceived similarity (see Table 11 for means and standard deviations by condition for Similarity and Liking Perceived).

A marginal effect was also observed, assuming equal variance, in the degree to which people thought that they would experience hostile emotions toward the target player at a later point in time. The findings indicate that people tended to forecast greater levels of hostile emotions against deviant persons of their own in-group (-3) than all of the other conditions (1 for each group), $t(21)=1.968$, $p=.062$. This effect further supports the findings earlier listed and reveals that people tended to predict longer lasting hostile emotions against in-group deviates (see Table 5 for means and standard deviations by conditions for Anticipated Emotions).

Table 14

Value of Mean Contrasts for the Variables Assuming Equal Variance (Standard Errors in Parentheses)

Variable	Contrast 1	Contrast 2	Contrast 3	Contrast 4	Contrast 5	Contrast 6
Emotion	-.4444	-.0952	-.0635	-.3492	-.0952	-.5397
Experience	(2.475)	(.966)	(2.210)	(.917)	(.966)	(.917)
Anticipated	1.4310	1.1714	-3.2548*	-.6548	.2571	.7738
Emotion	(1.852)	(.722)	(1.653)	(.686)	(.722)	(.686)
Behavioral	-4.1524	-.2312	-3.2277	-2.1082	1.5818	-.7576
Responses	(3.451)	(1.346)	(3.081)	(1.280)	(1.347)	(1.280)
Negative	-3.4736	-.3143	-2.2175	-1.3413	1.5048	-.1508
Attribution	(2.376)	(1.323)	(2.641)	(.839)	(1.642)	(1.284)
Dispositional	-2.8238	-.1000	-2.4238	-1.6667	.9571	-.8095
Attribution	(4.062)	(1.585)	(3.627)	(1.506)	(1.585)	(1.506)
Control	.8012	1.9714	-7.0845**	-2.8631**	.2786	-.6131
Desired	(3.029)	(1.181)	(2.704)	(1.123)	(1.181)	(1.123)
Control	3.9881	1.7857	-3.1548	-.8690	-1.2857	-.3690
Perceived	(3.125)	(1.219)	(2.790)	(1.158)	(1.219)	(1.158)
Similarity	6.6012**	2.3571*	-2.8274	.3512	-1.5357	1.1726
and Liking	(2.924)	(1.141)	(2.61045)	(1.083)	(1.141)	(1.083)
Perceived						

* = $p < .1$ ** = $p < .05$

Chapter Four: Discussion

It was hypothesized that people tend to experience the hostile emotions of anger more against deviants when they are in-group or contempt when deviants are out-group members. Thus it was proposed that participants would show less desire to control the behavior of out-group deviants, and this lack of desired control would ultimately lead to them rejecting and excluding that person. This part of the hypothesis was not supported in that participants did not desire less control over out-group deviants than adherent players, and there was no indication that they intended or desired to reject participants more so than in-group deviants. In contrast, in-group deviants were thought to increase peoples' inclinations to respond behaviorally toward a deviant target person due to higher levels of perceived and desired control. The results of this study partially support this hypothesis by showing that participants generally desired more control over a deviant when that person was perceived as being a member of one's own group. These findings tend to support the theoretical functions of both anger and contempt.

Though the experiment's results did not show any discernible differences between anger and contempt as expected, one might still interpret the results as partially supporting the hypotheses. Anger, as was reasoned in the introduction, tends to be an emotion that motivates social control, often in form of aggression or intimidation (Carins, 2006; Fischer & Roseman, 2007). The findings presented here in the research regarding desired control reflect prior research regarding the black sheep effect, which argues that people will react more harshly and more punitively toward in-group members who deviate than out-group members who behave in a deviant manner (Marques et al. 1994). Thus, people may try to exert their feelings via behavior or behavioral intents rather than just showing their emotions. The

current research supports this reasoning in that people had the strongest desire to control members of their own group when they behave in a deviant fashion, and this enhanced desire to control their behavior (i.e. make them apologize or discontinue the deviant actions) may lead them to react more negatively toward this individual, potentially even leading to aggressive coercion.

Though the data used to conduct the analyses were relatively small, many of the findings suggested the design of the experiment had some effectiveness. The results of the univariate ANOVAs examining group effects of negative attributions, behavioral reactions, and similarity and liking perceived support the use of the methods of the experiment, suggesting that people tended to believe that out-group members were not similar to them according to self-reports of participants assigned to out-group conditions compared to participants in the in-group conditions. Furthermore, the results support that people who behaved contrary to traditional expectations and accepted standards (e.g. deviants) tended to be viewed more negatively, as supported by the higher number of negative dispositional attributions endorsed against deviant players compared to adherents. The effect of the target player's behavior could be observed by participants reporting greater desire to act against deviant players compared to adherent players.

The desire that participants expressed to exert social control was in-part motivated through the assigned group membership: the results suggested that group affiliation led to greater perceived similarity of the target player when that player was thought to be in-group member compared to an out-group member. This greater perceived similarity then motivated participants to desire greater levels of social control in the in-group conditions. Social control as computed seems to center around participants reports for desiring target players to

apologize for wrongdoing or to cease performing the deviant behaviors (in this particular example to stop saying lewd and in-appropriate things).

It had been hypothesized that any differences in reactions to participants would occur as a function of perceived control, which involved the degree participants thought they could influence the participant. Contrary to expectation, the primary difference between the conditions was the degree to which control was desired not perceived; the results suggested that participants always perceived the same level of control. This begs the question of what leads to people to desiring control over the behavior of a deviant in-group person vs. adherent people or out-group deviants. The lack of desired control over an adherent in-group or out-group member might possibly be explained by the lack of need to control their behavior (i.e. their behavior is not offensive). Desiring control may thus partly imply a perceived need to control their behavior. Participants desired as much control over out-group deviates as adherents, despite their aversive behavior, may also be perceived as a function of needing control, as opposed to the perceived control hypothesis originally suggested (i.e. his/her behavior doesn't reflect on me).

A strange effect that related to how people viewed target players from the in-group deviant condition related to the affect forecasting of negative emotions. These results suggest that participants generally thought they would be hostile longer toward in-group deviate members. Albeit this findings may partially contradict prior findings that people should experience more long term negative emotions against distant others whom they feel contempt for (Fischer & Roseman, 2007), it should be noted that people are generally poor forecasters of affect. When predicting how intensely one will experience an emotion in the future, people often fall victim of the durability bias, which describes the effect whereby people tend to

overestimate the intensity of their emotions after several days (Wilson & Gilbert, 2003). In this sense it may be difficult to determine the actual levels of contempt and anger people would experience several days after a negative encounter relying on self-report data alone.

Though several items were used to assess the emotions felt by the participants toward the target players, the results suggest that there was no discernible difference in whether participants experienced greater anger or contempt. This effect, however, can be found in prior literature, whereby anger and contempt are generally positively correlated and generally tend to co-occur; this makes it more difficult to understand the potential effects of anger and contempt apart from the theoretical depictions and theories regarding them (Hutcherson & Gross, 2011; Fischer & Roseman, 2007). The difficulty in differentiating anger and contempt may come from the similar negative arousal that generally occurs when experiencing either emotion. This might suggest that the arousal for anger and contempt may not necessarily be considerably different, but the situational attributions (such as perceived similarity) may drive different emotional reactions.

Limitations

Some potential limitations of the experiment involve references to the generalizability of the findings. Since the results lack actual in-person interaction, the findings may not fully capture the complexity of interpersonal interactions (i.e. facial expressions, body language, etc.) that often accompany awkward situations. Furthermore, the experiment asked participants only how they would like to act, but not all participants would actually behave in such a manner if placed in in-person contact with that individual. Prior research using Cyberball as a paradigm for implementing social ostracism has shown that even when participants are aware that they are playing against a person display decreases in self-esteem,

meaningful existence, control, and belongingness that are equal to when they believe they are playing against humans (Zadro, Williams, & Richardson, 2003). This finding suggests how this paradigm may lack external generalizability since one would generally not expect rejection by a computer to affect someone as severely as in-person rejection.

Additionally, the nature of the task itself, playing a hand toss game with a stranger and chatting through a chat room, may not be a situation in which many participants often find themselves in. Thus one must be careful in the generalization of such results, because the nature of the task lacks a certain degree of external generalizability. Still participants' attentions were more often focused on the content of the conversation than the nature of the game, and one might argue that text conversation with scarcely known others may not be as uncommon as it once was.

Among other limitations of the experiment, some aspects of the experiment did not function exactly as intended. For example, the Cyberball game employed in the study frequently crashed for unexplained reasons, and as a result a large amount of the throw data was lost. Again due to the small sample sizes participants who played a crashed game were not excluded from the data set, potentially introducing a confound. Furthermore, this also rendered any data that would have been acquired from the software virtually useless. Additionally, the setting of the room may have set up a situation in which participants were unusually wary due to the presence of a one-way mirror.

The lack of participants acquired in this study can be cited as a major limitation of this experiment and its findings. Many of the analyses did not possess a significant amount of power to demonstrate significant differences across groups. As a consequence, many of the analyses may not have yielded significant findings more as a consequence of small sample

sizes, even if such effects may exist. Though the researchers took steps to examine the findings accounting for the small sample size, such as by using focused contrasts in a one-way analysis of variance, the small sample size still restricts the applicability of the experiment's results.

Future Research Directions

Future research should aim to understand to a greater extent the relationship and function of control, both perceived and desired, in its relation to behavior and emotion. Though this experiment suggests that people will desire more control as a function of a target player's behavior and their group-affiliation, it remains unclear why participants desire the same level of control over out-group deviates as those who are socially adherent. Future research should explore this question and specifically determine if desire to control might stem from a perceived ability or need to control the behavior of other people. Furthermore, it should examine how people come to perceive that they have control or under what circumstances do people feel that the control over someone else should be viewed as necessary.

In addressing how future research might overcome limitations encountered in this experiment, future researchers might examine a paradigm of introducing adherent and deviant persons in a situation in which one assign group affiliation and examine the effect of in-person interactions. To improve generalizability and to clarify how face-to-face interaction differs from online communication, this future study might make use of a task whereby two people are engaged in a particular task while still being able to talk to the other participants. One example might be to create a face-to-face hand toss game in which one can choose who to throw to while being able to interact with them in-person.

The findings of this experiment will greatly aid the research regarding the black sheep effect and the greater levels of harshness often observed against in-group deviates. By showing that people tend to desire more control over in-group deviants, the research corroborates research in the field of group dynamics which suggests that in-group deviates may often be the target of anger and wrath, even though they are still perceived as group members (see Emerson, 1954; Festinger & Thibaut, 1951; Mills, 1962).

Though prior research has suggested that the extent to which people say they are willing to confront a deviant in-group member may be moderated by the extent to which they perceive that they can cause them to feel shame (see Nugier et al., 2009), the results of this experiment suggest that the desire to control behavior is not associated with the perception of control. In this regard, the study suggests that the desire to control the behaviors of someone else may be motivated by another factor or by the situation itself. Future research should aim to clarify this issue to better account for the origin of conformist motives in social groups.

Concluding Comments

The research presented here supports the importance of desiring control in the formation of contempt and anger; it also suggests the importance of perceived similarity in the experiencing of hostile or negative emotion. The implications for this research can best be understood in the context of intergroup interactions, but the results also suggest the effect of perceived similarity in the context of interpersonal relationships. Many cases of bullying, harassment, and aggression might be understood in this context in that people may behave more punitively toward in-group deviates due to a greater desire for control. The research suggests that the difference between anger and contempt, unlike what was originally

hypothesized, may not be a difference in perceived control only a difference in a person's will or desire to control the behavior of someone else.

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APPENDICES

Appendix A: Survey Materials and Measures

Informed Consent

We are conducting a lab-based study to assess the interactions between strangers in an online social media game. You will be asked to complete a brief series of online questionnaires.

After completing these measures we will try to pair you with other students who are similar to yourself. After talking to these two other participants through Google hangout, you will be asked to play two games of online handball with them. After each game you will be asked to answer several questions about one of the other players who will be selected at random. Finally, you will be asked to write a critique of another player of your choice. At the conclusion of this research project, we expect to disseminate our results by publication in a professional journal or conference presentation. None of these papers or presentations shall disclose personally identifying information.

It is estimated that you should be able to complete your participation in this study within approximately 30-45 minutes. You will be exposed to minimal risk by participating in this study (i.e., you will be asked to sit at a desk, answer a few questions about yourself, interact with other players through an online chat room, and play an online game of catch). In the unlikely event that distressing personal concerns arise for you during or after your participation in this study, EMU students are eligible for free counseling services at 313 Snow Health Center, Eastern Michigan University, Ypsilanti, Michigan 48197 (Telephone: 734.487.1118; Email: Counseling.Services@emich.edu). Participants can also contact the Faculty advisor Stephen Jefferson at 734.547.6858, University of Michigan Health System crisis line at 800.273.8255, or the S.O.S phone line at 734.484.4300.

Your decision whether or not to participate is completely voluntary and will not prejudice your future relations with Eastern Michigan University. At any time during your participation, you have the right to discontinue the study without penalty or loss of benefits of any type. At the conclusion of this study's data collection phase, your web browser will be directed to a page displaying a brief letter explaining some of the main hypotheses of this study.

There are no direct benefits associated with participation in this study. The researchers of this study have no control as to whether or not the participant's instructors will provide them extra credit for their completion of this study, and they also have no control over the amount of extra credit that the instructor may or may not award the participant. At no time will your name or any identifying information be paired with any of your answers or responses.

The primary investigator for this study is Brendan Molinar. He can be contacted by e-mail at bmolinar@emich.edu. If you have questions about this study, please feel free to contact him. His faculty advisor is Dr. Rusty McIntyre. Dr. McIntyre's address is 301N Science Complex, Eastern Michigan University, Ypsilanti, MI 48197. His telephone number is 734.487.2406. His e-mail address is rmcinty4@emich.edu.

If you have any questions concerning this study or wish to learn more about its findings, please feel free to contact the principle investigator (see contact information above). We expect to complete this project by April 22, 2014.

*1. This research protocol and informed consent document has been reviewed and approved by the Eastern Michigan University Human Subjects Review Committee for use from _____ to _____. If you have questions about the approval process, please contact the Director of the Graduate School (734.487.0042, human.subjects@emich.edu).

Please note: If you wish to have a copy of this consent form, please use the print screen option of your computer or e-mail one of the researchers to request an electronic copy of this form.

(Select Button) I consent to participate in this study.

(Select Button) I do not consent to participate in this study.

Demographics:

1. What is your biological sex?
 - a. Male
 - b. Female
2. Which of the following answers best describes you ethnicity (select all that apply)
 - a. White/Caucasian
 - b. African-American
 - c. Hispanic-American
 - d. Asian-American or Pacific Islander
 - e. Native American or Alaskan
 - f. Other (Please Specify)
3. What is your age in years (Numeric Entry)
4. Which of the following answer choices best describes your political orientation?
 - a. Strongly Conservative
 - b. Moderately Conservative
 - c. Mildly Conservative
 - d. Moderate
 - e. Mildly Liberal
 - f. Moderately Liberal
 - g. Strongly Liberal
5. How often do you attend religious services?
 - a. Never
 - b. Seldom
 - c. Sometimes
 - d. Often
6. What is your major in College? (Text Entry)
7. How many years have you been in college? (Numeric Entry)

Ten-Item Personality Inventory-(TIPI)

Ten-Item Personality Inventory-(TIPI)

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

1 2 3 4 5 6 7
I see myself as:

1. _____ Extraverted, enthusiastic.
2. _____ Critical, quarrelsome.
3. _____ Dependable, self-disciplined.
4. _____ Anxious, easily upset.
5. _____ Open to new experiences, complex.
6. _____ Reserved, quiet.
7. _____ Sympathetic, warm.
8. _____ Disorganized, careless.
9. _____ Calm, emotionally stable.
10. _____ Conventional, uncreative.

Guilt and Shame Proneness Scale (GASP)

Instructions: In this questionnaire you will read about situations that people are likely to encounter in day-to-day life, followed by common reactions to those situations. As you read each scenario, try to imagine yourself in that situation. Then indicate the likelihood that you would react in the way described.

1) Very Unlikely 2) Unlikely 3) Slightly Unlikely 4) About 50% 5) Slightly Likely 6) Likely 7) Very Likely

_____ 1. After realizing you have received too much change at a store, you decide to keep it because the salesclerk doesn't notice. What is the likelihood that you would feel uncomfortable about keeping the money?

_____ 2. You are privately informed that you are the only one in your group that did not make the honor society because you skipped too many days of school. What is the likelihood that this would lead you to become more responsible about attending school?

_____ 3. You rip an article out of a journal in the library and take it with you. Your teacher discovers what you did and tells the librarian and your entire class. What is the likelihood that this would make you would feel like a bad person?

_____ 4. After making a big mistake on an important project at work in which people were depending on you, your boss criticizes you in front of your coworkers. What is the likelihood that you would feign sickness and leave work?

_____ 5. You reveal a friend's secret, though your friend never finds out. What is the likelihood that your failure to keep the secret would lead you to exert extra effort to keep secrets in the future?

_____ 6. You give a bad presentation at work. Afterwards your boss tells your coworkers it was your fault that your company lost the contract. What is the likelihood that you would feel incompetent?

_____ 7. A friend tells you that you boast a great deal. What is the likelihood that you would stop spending time with that friend?

_____ 8. Your home is very messy and unexpected guests knock on your door and invite themselves in. What is the likelihood that you would avoid the guests until they leave?

_____ 9. You secretly commit a felony. What is the likelihood that you would feel remorse about breaking the law?

_____ 10. You successfully exaggerate your damages in a lawsuit. Months later, your lies are discovered and you are charged with perjury. What is the likelihood that you would think you are a despicable human being?

_____ 11. You strongly defend a point of view in a discussion, and though nobody was aware of it, you realize that you were wrong. What is the likelihood that this would make you think more carefully before you speak?

_____ 12. You take office supplies home for personal use and are caught by your boss. What is the likelihood that this would lead you to quit your job?

_____ 13. You make a mistake at work and find out a coworker is blamed for the error. Later, your coworker confronts you about your mistake. What is the likelihood that you would feel like a coward?

_____ 14. At a coworker's housewarming party, you spill red wine on their new cream-colored carpet. You cover the stain with a chair so that nobody notices your mess. What is the likelihood that you would feel that the way you acted was pathetic?

_____ 15. While discussing a heated subject with friends, you suddenly realize you are shouting though nobody seems to notice. What is the likelihood that you would try to act more considerately toward your friends?

_____ 16. You lie to people but they never find out about it. What is the likelihood that you would feel terrible about the lies you told?

GASP SCORING: The GASP is scored by averaging the four items in each subscale.

Guilt–Negative-Behavior-Evaluation (NBE): 1, 9, 14, 16

Guilt–Repair: 2, 5, 11, 15

Shame–Negative-Self-Evaluation (NSE): 3, 6, 10, 13

Shame–Withdraw: 4, 7, 8, 12

Crowley (2013):

Measures:

Contempt Received From Others

1. People don't touch me a lot.
2. People are always telling me that they dislike or hate me.
3. People don't express emotion to me often.
4. People are often cold to me.
5. Many people I know are quite cold to me.
6. Most of the people I know don't express emotion to me very often.

Contempt Expressed

1. I consider myself to be a very cold person.
2. I am always telling people that I dislike, how much I dislike them.
3. When I feel dislike or hate for someone, I usually express it.
4. I have a hard time telling people that I dislike or hate them.
5. I'm not very good at being cold.
6. I love expressing dislike or hate through my nonverbal behaviors (e.g., scowling face, turning my back to people)
7. I don't tend to express dislike or hate to other people very much.
8. Anyone who knows me well would say that I'm a pretty cold person.
9. Expressing dislike to other people makes me uncomfortable

ANGER (.88)

Participants will indicate their level of agreement to the following statements on a scale of 1 (Strongly disagree) to 7 (Strongly agree).

- + keyed I get angry easily.
- I get irritated easily.
- I get upset easily.
- I am often in a bad mood.
- I often lose my temper.
- keyed I rarely get irritated.
- I seldom get mad.
- I am not easily annoyed.
- I keep my cool.
- I rarely complain.

Instructions: for this exercise we ask participant to select from the following lists *one* option best describes you interests, preferences, and associations.

1. Of the following clubs listed below, which club would you be most interested in joining or have you already joined? Please indicate that club below.
 1. Accounting Club
 2. Intermural Sports
 3. Chemistry Club
 4. College Democrats
 5. College Republicans
 6. Dance Club
 7. A Fitness Club
 8. An Environmentalism Club
 9. A Fraternity or Sorority
 10. A Health and Wellness Awareness Club
 11. Honors Student Club
 12. Student Government
2. Of all the music listed below, which of these forms of music you would consider to be your favorite? Please indicate that choice below.
 1. Rock Music
 2. Rap Music
 3. Heavy Metal
 4. Classical Music
 5. Pop Music
 6. Country Music
 7. Jazz Music
 8. Dance Music
 9. Electronica

Appendix B: Example Script

Control Player (Answer more questions than you ask)

Before Cyberball:

1. Hey everyone. I'm doing very well today thank you for asking.
2. I kind of like the _____. It sounds like a cool club.
3. I like to listen to _____ music in my free time.
4. I am majoring in _____.

(After some of the initial questions have been asked, feel free to ask some small, common questions of your own)

5. So what kind of things do both of you like to do in your free time
 - a. Oh that's really cool or As long as you enjoy it (negative responses only to out-group target player).
6. Do any of you have any pets? I have a Labrador retriever at home. His name is Sparky.
 - a. That's too bad pets are really cool. Or That sounds like an awesome pet.

Cyberball:

1. No I can't really say that I've ever had that experience
2. I am (not) a big fan of action movies. Or Wow Seriously. No I don't watch that much porn.
3. I know (or don't know) a lot of people into action movies or C'Mon... Yeah I imagine that would pretty awkward.
4. Usually I just stick to my heavy coat around this time of year. Or Wow. That's kind of out there.

Target Player: Norm Adherent

Before Cyberball:

1. Hey my name is Pat. How are you doing today?
 - a. That's good to hear or That's too bad (Context Specific)
2. I am a student here at EMU, and I am also a member of the _____(depends on condition) club. What kind of club kind of club would you want to join?
 - a. Cool (or other affirmation if in-group) or Well if you both of you enjoy it (don't identify but don't disparage)
3. What kind of music do you guys like? I really like **rap** (example), because it's has a good rhythm.
 - a. Awesome it's always nice to meet someone who enjoys the same music (in-group affirmation) or It's not my favorite music (out-group distancing)
4. What are you two majoring in? I am majoring in Psychology (example context relevant).
 - a. Cool (affirmation) or I am not really interested in that field (distancing)

During Cyberball:

1. Hey have you either of you ever had shin splints? I was out for a run yesterday and my shins started acting up.
 - a. Yeah it sucks doesn't it? Or The key to dealing with shin splints is plenty of icing. Otherwise it can become a real problem.
2. So do either of you like to watch action movies?
 - a. What's your favorite? Or Why not?
3. Do your watch friends and family watch a lot of action movies?
 - a. Cool it's good to have people to watch with or You should watch with them sometime.
4. So do the two of you wear a lot of different coats throughout the week?

Norm Deviate Player:

Before Cyberball:

1. Hey all. How ya doin today?
 - a. Well that's good I guess or OMG I'm sorry to hear that.
2. I totes love the _____ Just saying it's spectacular. What kind of clubs you like?
 - a. OOOOOOh! Nice. I love talking to someone who loves the same things. Or EWWW!
Why would you want to join that club?
3. What kind of music yeh like? I totes like **rock** it makes me feel good when I'm dancing in the shower.
 - a. Right on! That's the stuff or That's redonck Or Yuck! Uh! That's stuffs just revolting.
4. What kind of stuff are you all majoring in?
 - a) Right on! I'm majoring in that too or Whatever, that sounds just awful. Or How do you sit though all those boring class. Yuck!

During Cyberball:

1. Hey I know this is like TMI, but either of you ever has a hemorrhoid or anything like that?
 - a. It's quite an experience. You should have one sometime. NOT.
2. Do any of you not like pornography?
 - a. Haha okay ;) Sure you don't. or How great is porn? I like to watch it five hours a day.
3. How bad do you think it would be if your mother caught you watching pornography?
 - a. Mine would probably just start watching with me lol.
4. Quick question again. So how many times do you guys change your underwear a week?

Appendix C: After Cyberball Survey

Instructions: The following items are designed to assess your feelings toward one of the other players in the game, who was selected at random. Please indicate your level of agreement to the following statements in reference to the other players from 0 (Not at all) to 10 (Completely). Please be as honest as possible. All of your answers will be kept completely anonymous.

With Regards to Pat...

- 1) To what extent did this player make you feel angry?
- 2) To what extent did this player make you feel disdain or scorn?
- 3) There were things that this person said that made me want to stop talking to them?
- 4) If I met this person in a class, I would not want to sit near this individual?
- 5) If I met this person in a class, I would not want anything to do with this individual?
- 6) If I had to play another game, I would rather not play with this person?
- 7) I would have great difficulty accepting this person into one of my social groups?
- 8) If you had another opportunity to work with this player, to what extent would you want to talk out your differences?
- 9) This person is worthless.
- 10) I respect this person.
- 11) If something bad happened to this person, I would be very upset?
- 12) Playing this game with this person was a waste of time?
- 13) To what extent did you or did you want to express criticism of this player?
- 14) To what extent did you or did you want to confront this player about your negative feelings about him/her?
- 15) To what extent did you or did you want to use unfriendly remarks toward this person?
- 16) To what extent did this player make you want to just walk away or stop playing this game?
- 17) To what extent did you or did you want to simply ignore this person?
- 18) To what extent did you or did you want to express disgust toward this person?
- 19) There were things this person said that I wanted him/her to apologize for?
- 20) There were things this person said that I wanted him/her not to say again?
- 21) There were times I wanted this person to know that he/she had said something that went too far?
- 22) To what extent do you feel you could influence this person?
- 23) To what extent did you feel that what you said mattered to this person?
- 24) To what extent did you feel that you could not change this person's behavior?
- 25) I could not change this person's behavior, because this is just how they are?
- 26) What this person said can primarily be attributed to their personality?
- 27) This person is annoying and irritating?
- 28) This person is selfish and inconsiderate?
- 29) To what extent do you think you would be angry at this player in several days?
- 30) To what extent do you think you would be disdainful of this player in several days?

- 31) How similar did you think you would be to participant before you played the online game?
- 32) How much did you think you would get along with this participant before you played the online game?
- 33) After playing the online game, how similar did you think you were to this player?
- 34) After playing the online game, how much did you think you got along with this player?