The power to speak out: the effect of legitimate and illegitimate power on confrontations of prejudice

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A Dissertation

titled

The Power to Speak Out: The Effect of Legitimate and Illegitimate Power on
Confrontations of Prejudice

by

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Submitted to the Graduate Faculty as partial fulfillment of the requirements for the
Doctor of Philosophy Degree in Experimental Psychology

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Most people do not confront prejudice despite wanting to do so (e.g., Swim & Hyers, 1999). There can be benefits to confronting prejudice that targets may miss out on by being silent as well as negative consequences that could arise from such inaction. However, confrontation rates could be affected by situational factors. A hitherto unacknowledged element that could alter confrontation rates is power over the situation. Power can be thought of as having control over resources that impact others. Previous research (e.g., Galinsky, Gruenfeld, & Magee, 2003) suggests that power can affect one’s willingness to perform actions. In the following studies, I investigated how power and legitimacy of said power can influence one’s willingness to act in a specific way—confronting public expressions of group bias. Participants engaged in a decision-making task with a confederate who made sexist statements either online (Study 1) or in person (Study 2).

Based on other research that has manipulated power and legitimacy (e.g., Lammers, Galinsky, Gordijin, & Otten, 2008), in Study 1, I hypothesized that participants would be especially likely to confront the perpetrator of sexism when the participant had
legitimate power or illegitimate powerlessness in their group’s interaction. However, neither the power main effect nor the Power x Legitimacy interaction reached significance. On the other hand, there was a marginally significant main effect for legitimacy of power such that those who received their position due to illegitimate reasons confronted more than those who given legitimate reasons for their placement. I also tested to see whether perceived control or discrete emotions mediate legitimacy’s effect on confrontation rates. Analyses suggest that perceived control (but not discrete emotions) mediates this effect.

In Study 2, I attempted to see if increasing participants’ perceptions of the legitimacy of power strengthened Study 1’s effect. I hypothesized that participants who are able to more easily perceive the legitimacy of the existing power dynamic (i.e., legitimacy awareness) would be more likely to display the pattern of results hypothesized for Study 1. Study 2 replicated the legitimacy of power main effect. However, increased legitimacy awareness did not have an impact on confrontation rates either by itself or in conjunction with legitimacy of power.

The results from both studies suggest that legitimacy of power is a social variable that can increase confrontation rates. When individuals experience illegitimacy in their power placements (whether they are powerful or powerless), they feel less control over their environment. This lowered perceived control in turn motivates individuals to regain control. One possible way in which to do this is by taking control of a biased situation by confronting a perpetrator of prejudice.
This project is dedicated to my best friend, Austin Barth, for the invaluable emotional support he offered me during this time period.
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Chapter One

Introduction

Imagine that you are socializing with a group of people. At some point during the conversation, someone makes a derogatory joke about a minority social group. Maybe it is an off-color comment about Black individuals being lazy or how a woman’s place is to be barefoot and in the kitchen. Whatever that statement is, you find yourself becoming irritated. You fail to see the humor because it does not hold true for everyone. Your immediate instinct is to let him or her know how rude you find this statement to be. However, upon looking around, you realize that others laughed at the joke (it is hard to tell if they are being polite or if they actually found it humorous). You become nervous about speaking up. You do not want to risk your friendships by looking like a complainer. Even worse, it was your boss who said the comment and you do not want to risk getting fired or perhaps be passed over for a promotion. Instead of confronting the joke-teller, you decide to sit back quietly, giving the person a polite smile, and hope that the topic of conversation changes soon.

In the above example, prejudice is social exhibited but is not confronted. However, there are instances in which people do buck the crowd and voice concerns for biased actions. For example, perhaps you know that one person who would give anyone who engages in discriminatory behavior a piece of his or her mind, boss or not. In addition to personality factors, aspects of the social situation should also make it even easier for interested parties to confront prejudice. Prior research suggests that situational factors (in this instance, the amount of power one has) may be able to alter how someone responds to an act of prejudice — i.e., whether she chooses to remain silent or to confront
the perpetrator. In this dissertation, I will explore the impact that certain types of power—particularly legitimate power—have on confrontations of prejudice. First, I will provide a background into the related research areas. Specifically, this will cover previous findings in the prejudice literature related to prejudice confrontation as well as an overview of the research on power. I will then present the results of a Pilot Study providing the first link between the literatures on prejudice confrontation and power. Finally, I will present two new experiments that directly test a set of predictions regarding how power and the legitimacy of power impact the likelihood of prejudice confrontation.

**Prejudice**

Before delving into the research on confrontations, it is useful to take a brief look at the broader literature in social psychology on prejudice. Prejudice is a diverse research field that has evolved dramatically over the past century with research moving from an individual differences perspective, to group processes, and then to a more cognitive perspective (see Duckitt, 1992). Although referred to broadly as “prejudice”, it is important to first distinguish the three aspects that go into this process – stereotypes (i.e., the cognitive component dealing with people’s thoughts about minorities), prejudice (i.e., the affective component involving feeling states towards minority members), and discrimination (i.e., the behavioral component dealing with majority member’s treatment of minorities). Confrontation may especially tackle the discrimination component but could also lead to changes in cognition and affect, as we will discuss later. Additionally, accuracy of stereotypes research (i.e., Jussim, McCauley, & Lee, 1995; Lee, Vue, Seklecki, & Ma, 2007) would suggest that there may be certain types of statements that individuals may be more likely to confront – statements that are negative and inaccurate
regarding their social group’s characteristics. For instance, a woman may be more likely to confront comments about her gender being bad at math (negative and inaccurate) than statements regarding women being nurturing (positive and accurate).

**Types of prejudice.** There are many different types of prejudices a person could have – whether it regards someone’s gender, race, sexual orientation, weight, age, or socioeconomic status. For the purposes of this paper, we will be focusing on gender prejudice, which is more commonly referred to as sexism. Sexism is a specific type of prejudice that deals with overgeneralized thoughts, feelings and behaviors regarding a person’s gender (typically this type of prejudice is directed at women). Although many types of prejudice are (at least on the surface) unaccepted by our current politically correct society, people tend to respond differently towards sexism. For example, while committing an act of racism made individuals feel apologetic and concerned about offending the target of prejudice (i.e., a person, in this case an African American, who belongs to the stigmatized social group), sexism was responded to with amusement (Czopp & Monteith, 2003). Therefore, it appears that there are differences in the social acceptability of the various kinds of prejudices with sexism currently not being taken as seriously in the United States as racism. However, sexism and racism are similar in that they are both based on prejudices due to noticeable physical characteristics whereas other targets, such as lesbians, gays, and bisexuals, are invisible targets meaning that their membership to their social category may not be as easy to recognize. Given these and many other nuanced differences between types of prejudices, researchers tend to not treat all types of prejudice equally.
**Inevitability of prejudice.** At first glance, the extant literature on prejudice seems to suggest that prejudice is an inevitable and evolutionarily derived part of the human condition (e.g., Devine, Monteith, Zuwerink, & Elliot, 1991; Greenberg, Pyszczynski, Solomon, Rosenblatt, Veeder, Kirkland, & Lyon, 1990). For example, numerous studies point to the automaticity of such behavior (e.g., Devine, 1989) with even low-prejudiced individuals in our society having knowledge of the culture’s stereotypes. However, as we will see later, even if stereotypes are inevitable, there may be some ways in which we can control ourselves from acting prejudiced.

Some researchers suggest that people stereotype because they are cognitive misers that do not wish to individuate every social target (Bargh, 1999; Macrae, Milne, & Bodenhausen, 1994). The logic here is that our social environment is rich with complexity and that it is overwhelming to treat each individual we encounter with detailed processing. Instead, we can make quick impressions of other individuals by categorizing them based on group membership and use prior knowledge about the group to guide our behavior toward individuals. It is important to note that even if a perceiver is capable of sparing the cognitive resources to make equitable and individuating judgments, the perceiver may be unwilling to do so because of the benefits he or she receives from making categorical-based judgments. For example, if a perceiver’s self-esteem had just been threatened, derogating another individual by means of a negative group stereotype may elevate self-esteem to a positive level (Fein & Spencer, 1997).

**Effects of prejudice for targets.** Stereotypes and prejudices can be problematic for minorities. For instance, targets may perform poorly in domains they are negatively stereotyped in (e.g., women and math) because they are overly concerned with proving
the prejudicial belief wrong. This process thereby undermines their performance (see Steele, Spencer, & Aronson, 2002) which can affect cognitive capacity (Schmader & Michael, 2003) and create health issues, such as high blood pressure (Blascovich, Spencer, Quinn, & Steele, 2001). Even more drastic, stereotypes could literally be a matter of life and death with police officers being more likely to shoot an unarmed Black than a White individual (Plant & Peruche, 2005). Prejudice seemingly still exists at the institutional level. Even with America’s stance that “all men are created equal”, according to Census bureau data, White individuals are still more likely to earn Bachelor’s degrees (30%) than Black individuals (17%) and Hispanic individuals (11%) (Stoops, 2004). Additionally, Census data also shows that a gender gap still exists in income levels with men earning approximately $47,000 a year compared to women’s $36,000 average (DeNavas-Walt, Proctor & Smith, 2011). With the costs that targets incur from prejudice, attempting to limit the biased responding of others could be socially beneficial.

**Confrontations of Prejudice**

Researchers have considered many possible avenues for reducing prejudice and stereotyping (e.g., Allport, 1954; Aronson, 2001; Blanchard, Lilly, & Vaughn, 1991; Gaertner, Mann, Murrell, & Dovidio, 1989; Sherif, Harvey, White, Hood, & Sherif, 1961; Wolsko, Park, Judd, & Wittenbrink, 2000). Confrontations of prejudice are one such tactic that individuals can use to reduce the amount of bias that others exhibit. Confrontations can be thought of as some type of behavior (whether it be an explicit statement or an eye roll) that is meant to inform a perpetrator of the unacceptability of his or her actions.
**Self-regulation and confrontations.** As described by Monteith and colleagues (Monteith, 1993; Monteith, Ashburn-Nardo, Voils, & Czopp, 2002), it is possible for individuals to self-regulate their prejudiced responding. For instance, imagine that on his walk home from school, a fair-minded White student sees a Black man walking toward him. Because stereotypes of criminal behavior in African Americans may be automatically activated in the student’s mind, he quickly crosses the street in order to avoid the other man. After having “safely” passed the Black man, the student may pause to reflect on his actions and their origins. As someone committed to egalitarianism, his behavior contradicts his personal beliefs regarding the inappropriateness of prejudiced responding, and he may experience negative self-directed affect (Negself, e.g., guilt, shame, self-criticism).

According to Monteith’s (1993) model of self-regulation, this reflection and the corresponding negative affect help establish “cues for control.” At this point, the person who has committed the biased act will try to think about what went wrong and identify environmental stimuli associated with his discrepant response (e.g., the black man, walking down a street alone, etc.). Associations are formed between one’s discrepant response, the Negself experienced, and the indicators of the discrepant response. These indicators become cues for control that will trigger these same associations the next time the individual is in a similar situation. Furthermore, when these cues are activated the person will go through behavioral inhibition and slow down his responding. This gives him the opportunity to engage in prospective reflection; carefully processing what is happening and controlling any biased responding. The next time this student encounters a
Black man while walking, the previously established cues for control should inhibit prejudiced responding.

Pointing out prejudicial behavior to individuals through confrontations could affect biased responding in those both high and low in prejudice. Regarding low prejudice people, they may not even be aware that they are committing bias at a given time due to the automaticity of stereotypes. For those who have the motivation to control their prejudices, self-regulation is possible but they first have to realize they are acting counterattitudinally; otherwise these processes will not activate (Monteith, 1993; Monteith et al., 2002). Confrontations therefore can inform such low-prejudice individuals that they have nonconsciously stereotyped allowing them to act more consistent to their beliefs in the future. On the other hand, for high-prejudice individuals, it is their motivation to inhibit biases, not awareness, that might lead them to engage in behaviors others may find offensive. However, confrontations can also affect these individuals through external motivation (Plant & Devine, 1998). Individuals in today’s society are expected to be politically correct. Confronting high-prejudice individuals can warn them that others are bothered by this type of behavior, motivating them to reduce later bias to avoid negative peer evaluation.

Do people confront? If confrontations can alter prejudicial responding, we should understand the likelihood that people will perform this action. Research on confrontations suggests that the majority of people do not confront acts of bias. First, Swim and Hyers (1999) examined how likely women believed they would confront sexism and compared this likelihood to their actual behavior. For example, in one study, participants imagined themselves in the hypothetical situation of participating in a
psychology study with another male participant. This male partner made biased comments about fictional females depicted on stimulus materials. After reading over this paragraph, participants were then asked to report how they believed they would respond to such comments, thereby assessing their perceived willingness to confront. Importantly, other participants actually went through the very event that was described in the vignette. That is, in this version of the study, a male confederate made the same prejudicial remarks to these participants that the hypothetical participants merely read about. Participants in this condition had an opportunity to actually respond to the perpetrator. The researchers found that people have a tendency not to say anything. In the confederate version of the study, only 15% of their participants directly confronted the biased partner. This is compared to 42% of people in the hypothetical condition who anticipated that they would speak out.

Similarly, Woodzicka and LaFrance (2001) also looked at women’s confrontation likelihood by comparing participants predicted responses to a hypothetical scenario to participants who actually experienced the scenario. However, the context for the sexism was altered in this set of studies. In contrast to Swim and Hyers (1999) where the sexism was regarding imaginary people, in this research, the biased comments were directed at the participants themselves. While interviewing for a job, participants were asked personal and offensive questions such as, “Do you think it is important for women to wear bras to work?” These researchers found that in the actual scenario, no one refused to answer the inappropriate questions and only 7% immediately asked the interviewer why he made such statements. In contrast, in the hypothetical condition, 68% predicted that
they would refuse at least one of his questions and 62% of participants believed that they would confront the sexist interviewer.

In summary, existing research data suggests that most people do not confront prejudice when they are provided the opportunity to confront. This can occur despite individuals’ private disagreement and it seems that individuals are often of the mistaken impression that they will confront more than they actually do. This belief that one would behave in one way when actually responding in another is also found in many areas of social psychology. For instance, the planning fallacy (Kahneman & Tversky, 1979) regards people’s underestimation of how long it will take them to complete a task. Even though we believe we know how we will act, as is in the case of confrontations, we in reality do not and often act in ways that would surprise us.

**Why don’t people confront?** If a large portion of individuals desire to confront prejudice but do not actually do so when the opportunity presents itself, an important question could be asked—what is motivating individuals to remain silent despite their beliefs that they would confront an act of prejudice? People may not confront bias for a number of different reasons. Some of these reasons will now be discussed.

**Social costs of confrontation.** One of the reasons suggested in the literature is the perceived social costs of confronting. People do not enjoy receiving criticism from others (Fincham, 1992) and therefore can react quite negatively to being confronted. After being confronted, an individual may curse at the confronter and start an altercation. If the perpetrator is a supervisor at work, he or she could potentially cut a person’s salary or work hours under the guise of more honest reasons. The social costs of confronting are
sometimes real and other times may be overestimated by the perceiver. Both reasons, however, are likely to inhibit confronting.

Interestingly, research by Shelton and Stewart (2004) suggests that in hypothetical scenarios, people often do not think about the social costs of confronting but when actually placed in the situation, these costs are salient and inhibit confrontation responses. For example, in one study, these researchers partially replicated Woodzicka and LaFrance’s (2001) paradigm with the sexist interviewer. However, they also added a social cost manipulation (i.e., how important it would be to obtain the position). Cost did not seem to affect people’s judgments in the hypothetical scenario. However, in the actual scenario, participants were either applying for a highly prestigious job (high cost) or for employment by a charity organization (low cost). Social costs did affect how likely these participants were to confront. After they were asked sexist questions by their interviewer, low cost participants were very likely to confront (92%), however high cost participants were considerably less likely to confront (22%). It would seem that when a position is highly important to obtain, people are especially likely to consider the costs of confronting. Women applying for the lucrative position may have worried about the impression they would have made on the interviewer if they confronted and therefore remained silent.

**Social disapproval.** Another social cost of confronting could be social exclusion and incurring the dislike of others. Research suggests that there may be a grain of truth to the fears some targets have of this occurring should they confront an act of prejudice. Confronters, especially those who are targets of the stigmatized social group, may be labeled as overreacting or perceived of as whiners if they voice concerns about
prejudicial behavior (Czopp & Monteith, 2003). These negative impressions not only occur with the perpetrators themselves but also with witnesses of the confrontation (Rasinski & Czopp, 2010). Frequently, it is not just the confronter and confrontee that are involved in the situation. Often times, negative comments are made towards a group of people or others may be in earshot of the conversation. These observers of the situation do not always have a favorable impression of the confronter, which may add pressure to the confronter’s experiences. If they confront the bias, they could be putting themselves in a situation where it is multiple people versus themselves.

Negative perceptions of confronters may also occur even when others recognize the authenticity of their claims. In one study (Kaiser & Miller, 2001), participants read about an African American student who received negative feedback from a panel of judges. The student felt that this feedback was due to the judges’ biases. Participants in the study were informed that either 0%, 50%, or 100% of the judges’ responses were biased. No matter what the frequency of bias was, participants labeled the African American student as being a complainer more than if he blamed himself or another outside source. In other words, even when participants were told that the student’s attribution of prejudice was 100% accurate, they still felt he was complaining by mentioning it.

*Multiple steps necessary.* Additionally, there may be numerous steps that individuals have to go through in order to confront prejudice. Because of the multitude of factors that affect the decision to confront or not, would-be confronters may become sidetracked, leading them to remain silent instead. Goodwin, Ashburn-Nardo and colleagues (Ashburn-Nardo, Morris, & Goodwin, 2008; Goodwin, Ashburn-Nardo, & Morris, 2007)
have compared the decision to confront to the steps that people take when responding to an emergency situation in bystander-intervention studies. These researchers created a conceptual model to help explain whether or not someone will confront an act of prejudice. Similar to Latane and Darley’s helping behavior model (1970), if an individual misses any of the stages, he or she will not say anything to the perpetrator. The steps of this confrontation model are 1) Detecting discrimination, 2) Deeming the discriminatory incident as an “emergency” (in other words, that the action was severe enough that something should be said about it), 3) Taking responsibility to confront discrimination, 4) Deciding how to confront discrimination, and 5) Taking action to confront discrimination. According to Goodwin and Ashburn-Nardo’s model, only those individuals who make it to stage five will confront prejudice.

To illustrate this step model of confrontation, consider the following example. A person has just been exposed to a derogatory comment about her social group. She hears the comment and feels that it was inappropriate. There’s no one else around so the person decides it is up to her to politely inform the person that the comment was out-of-line and so she does. However, most individuals hit pitfalls at one of the stages (such as paying attention to something else in the environment and missing the action, looking at other people’s dismissive reactions and deciding the action was acceptable, thinking that someone else should voice their concerns instead, not knowing how to confront without causing drama, or changing one’s mind about confronting at the last minute), hence the low confrontation rates found in other research. Although this model for confrontations is new and is still in the process of being explored, the researchers have offered
suggestions of how organizations can apply it to the training of their workers (Ashburn-Nardo et al., 2008)

**Benefits to confronting.** So we know that individuals often remain silent when exposed to acts of prejudice and that a reason for this is the negative repercussions that can occur socially if someone confronts. However, there could also be some benefits for targets of prejudice if they do decide to confront. These potential benefits will now be discussed.

**Prejudice reduction in perpetrators.** First of all, some researchers suggest that confronting prejudicial actions leads to a reduction in the perpetrator’s future bias. Therefore, they are one method targets of prejudice can use to lessen discrimination against their social group. An example of this benefit to confronting was illustrated in Czopp, Monteith, and Mark (2006). These researchers had participants interact with a confederate during a photograph inference task. Participants saw photographs of people along with a one sentence description of the individual depicted. Together with their confederate partner, they were guessing what type of person the photographed individual could be. These pairings were rigged so that some of the participants’ responses could be construed as being biased. For instance, one picture of a Black individual described him as being someone behind bars. Participants’ natural inclination was to say he was a criminal rather than something not stereotypical, such as a bartender. After making these seemingly stereotypic suggestions, the confederate would confront the participant, letting him or her know that the comment was perceived to be biased.

Compared to control participants who were not confronted by the confederate, confronted participants in Czopp et al. (2006) exhibited less biased responses in an
additional photograph inference task. After being confronted, these participants also reported less prejudicial attitudes on the Attitudes towards Blacks Scale than those in the control condition. Even though confronted participants experienced some negative feelings towards their confronter, they corrected their subsequent behavior. These results suggest that confrontations can lessen prejudicial responding by pointing out the discrepancy of a perpetrator’s actions. As such, these data illustrate a benefit of engaging in prejudice confrontation.

**Fulfillment of targets’ self-expectations.** It is important to note that even though there is a low confrontation base rate, people report that they desire to confront prejudice. As stated earlier, in the two likelihood of confrontation studies (i.e. Swim, & Hyers, 1999; Woodzicka & LaFrance, 2001), a large portion of the participants in the hypothetical conditions imagined that they would confront the perpetrator. Even though only 15% of Swim and Hyers’ (1993) participants in the confederate conditions confronted, 42% of those imagining the situation predicted that they would speak out. Similarly, 62% of Woodzicka and LaFrance’s (2001) participants in the hypothetical scenario version of the study (compared to 7% in the actual scenario) imagined that they would confront the inappropriate interviewer. Furthermore, of the participants who did not confront in Swim and Hyers (1999)’s confederate study, 43% privately reported wanting to confront the confederate and 91% reported having negative thoughts and feelings directed towards him, indicating that their silence was not due to an actual acceptance of the behavior. Therefore, a large number of targets seem to want to confront and could potentially benefit from doing so if the perpetrator exhibits less bias to their social group in the future.
However, one must be mindful that confronting may not be appropriate in every situation or for every type of person. There could be instances in which the costs of confronting would be too great, such as confronting a rigid-thinking boss, and therefore silence in this situation would be a better option than confronting. Additionally, certain types of people, such as introverts, may have a more difficult time utilizing this prejudice reduction option and would be better served trying a different technique. Still, the research of Czopp et al. (2006) illustrates there can be positives of confrontations for those who desire to perform this type of action.

**Costs of not confronting.** In addition to the benefits of confrontations, there can be negative consequences for the individual to *not* confronting. As discussed in the next section, a target individual could incur a few different intrapersonal consequences by remaining silent after an act of prejudice.

**Negative affect.** One such cost of not confronting is the experience of long-term negative affect on the part of the target. Shelton and colleagues (Shelton, Richeson, Salvatore, & Hill, 2006) asked participants to either think of a time when they did or did not confront an act of prejudice. After envisioning this past event, they were then asked to rate their feelings from it. Compared to those who did confront, non-confronters were more likely to experience feelings of guilt and to obsessively ruminate about the situation. Perhaps this is due to the inconsistency that occurs between target’s behavioral intentions and their actual inaction.

**Rationalization of bias.** Additionally, other research (Rasinski, Geers, & Czopp, 2013) indicates that individuals who value activism but who do not confront may experience greater cognitive dissonance (i.e., psychological discomfort) due to their
inaction. The discrepancy between wanting to say something against the bias and not actually confronting may in turn cause dissonance. To reduce this aversive state, the non-confronting target may change her attitudes towards the perpetrator (i.e., seeing him more favorably) or even reduce the importance she now feels towards confronting prejudice. Rationalizing the situation in either of these two manners reduces the initial discrepancy. For instance, if targets see the perpetrator as “not that bad”, the need to confront in this situation is lessened and they can thereby rid themselves of dissonance arousal. Furthermore, this rationalization process may also lead to reduced confrontations by these same targets in the future (Rasinski, Geers, Fowler, & Knisley, 2011).

**False consensus.** A target remaining silent could also create a false consensus effect for perpetrators. False consensus refers to the tendency for individuals to overestimate the number of others who agree with their opinions (Ross, 1977). It may be the case that if a perpetrator of sexism is not told to the contrary, he or she will interpret a target’s silence as acceptance and agreement for the biased opinion. A target’s response is of particular importance because when an act of bias occurs, people frequently look to the reactions of a target to help define the severity of the situation (Crosby, Monin, & Richardson, 2008). If the target does not respond, perpetrators may assume that the action must be acceptable, thereby reinforcing the biased behavior.

**Other targets’ definition of the situation.** If multiple targets are in the situation, they could also use each other’s silence to decide the best course of action. In trying to determine whether he or she should be speaking out or not, if other present targets are remaining silent, an individual may in turn interpret the situation as not that big of a deal, even though everyone else is also hesitating to say something too. This may be similar to
pluralistic ignorance in which individuals mistakenly use others’ inaction to decide what they themselves should do even though these same others are having the same thought processes and using the individual as their own frame of reference (Katz & Allport, 1931). Diffusion of responsibility could also play a role when multiple people observe an act of prejudice, meaning that everyone is expecting someone else to take care of the problem (e.g., Darley & Latane, 1968). The more people who are in the situation, the less likely it is that someone will feel personal responsibility to confront the perpetrator. In summary, not confronting prejudice may result in feelings of guilt and rationalization on the targets’ part as well as perpetuation of prejudice for the perpetrators, which could further impact a target’s life.

An important question to be asked is what type of situational factors could influence higher rates of confrontation? According to previous data (e.g., Swim & Hyers, 1999), confronting is a behavior that a majority of people would like to do, even though in reality, they are not engaging in this action. Additionally, confronting could have positives, such as reducing prejudice and avoiding the costs of not confronting. A question of interest could be what situational factors alter confrontation rates? Some research has suggested that there could be moderators that affect the likelihood of someone confronting. First of all, people who are more interested in activism, unsurprisingly, are more likely to confront (e.g., Swim & Hyers, 1999). Other research has suggested that optimistic individuals may also be more likely to speak out (Kaiser & Miller, 2004) due to their continued efforts to pursue their goals (Wellman, Czopp, & Geers, 2009). It is possible that there are other potential moderators regarding people’s willingness to confront prejudice.
Power

What is power? The power that one feels over his or her situation could be a key moderator of confrontation. If someone feels that she has power, she may also feel like she has more resources to act in the situation. Power can be thought of as having control over valuable resources, which in turn gives one the ability to impact others’ lives in some manner. For instance, one type of power that is important in terms of confrontation is social power, which specifies control over others (French & Raven, 1959). An example of social power could be the manager at your workplace. He or she has power over you in that your boss controls how many hours you work (i.e., “I’m going to need you to work late today”), how much salary you receive, if your requests for time off of work will be honored or denied, and whether or not you will continue to have said job.

Power across disciplines. Power is a multidisciplinary topic that has received considerable coverage in diverse literatures. Philosophers as far back as Machiavelli, Hobbes, and Russell discussed the importance of power (Ng, 1980). Nietzsche even went as far as to say that the will to power was the most basic component for life. He believed that “we need to see all life, not just human life, as united by a common striving for power” (Sprinks, 2003, page 134). Sociologists like Weber (1947) have tackled power from a perspective dealing with social relationships with the power holder. He argued that there are three types of authority – rational-legal (through fair laws), traditional (derived from the sanctity of traditions), and charismatic (due to a liking of personal qualities of the power holder). Power can be further distinguished as taking on three different forms – force (through physical means), domination (through explicit demands) and manipulation (influence without the power holder stating explicitly what he or she is
seeking; Goldhammer & Shils, 1939). Political science has studied power by observing how it relates to politicians' decision-making on policies (Ng, 1980). Finally, psychologists have also provided research in this area. For instance, Thibaut and Kelley (1959) have studied power through a social exchange perspective, looking at our abilities to influence someone else in order to obtain certain outcomes. Even though these different disciplines look at power on a different scale (whether it be at the group or individual level or its effect on political outcomes), all stress the importance of this variable across all areas of life.

**Connections to social psychological theories.** It should be noted that the issue of power relates to many pivotal issues and concepts discussed in the social psychology literature. Using the definition of power provided above, Asch’s (1951) conformity work could be thought of as dealing with the power that groups of people hold. The behavior of others seems to control our own actions, making us do such things as provide obviously wrong answers simply because other people have done so earlier. Therefore, it may not just be one sole person but a group entity that could hold power over us. Milgram’s (1963) work on obedience involved the ability of authority figures to control individuals. Simply the appearance of being a power holder is sufficient in influencing people to commit inhumane acts, such as shocking an unwilling participant to the point where he becomes unresponsive. Additionally, Zimbardo’s (1971) prison experiment shows us just how easily normal people can fall into the roles of the powerful (i.e., the guards) and the powerless (i.e., the prisoners). The unethical behavior of those who let their power run unchecked progressed so far in this study as to lead to its cancellation after six days.
**Minority influence.** An important facet of the power of social influence that relates to confrontations is minority influence (e.g., Moscovici, 1985; Moscovici & Personnaz, 1980). Moscovici’s work on minority influence suggests that it is possible for someone in the minority who is not in a position of power (such as a target of prejudice) to influence and shape the opinions of members of the majority (in this case, individuals who are not members of the stigmatized social group). According to this work, when minority influence is effective, it results in a change in a person’s private opinions. Applying this to the current research would suggest that a target confronter could change a majority member’s personal feelings towards the stigmatized social group by confronting the bias. This may be the case as long as the confrontation follows the guidelines for successful minority influence which includes holding a consistent, flexible, and appealing opinion.

**Power and action.** Research shows that people in power are more motivated to act. In a series of studies, Galinsky, Gruenfeld, and Magee (2003) manipulated whether participants felt high or low power in experimental situations. Sometimes this was accomplished by having participants complete a bogus Leadership Questionnaire before working in a group task. In such studies, some participants were provided feedback from this survey that indicated that they have the qualities of a successful leader and therefore they were assigned to be the manager of the group task (power). Other participants were informed that the results of the questionnaire determined they should be the group’s subordinate (powerless). In other studies in this paper, researchers manipulated power through primes, asking participants to think of a time when they had power over someone (power) or someone had power over them (powerless).
After these power manipulations, Galinsky and colleagues (2003) placed participants in a situation where they would need to choose whether or not they pursued an action. Findings from these studies suggest that individuals who feel a high amount of power are more likely to commit action than individuals who feel powerless. Some of the actions pertained to interaction with inanimate objects such as deciding to hit in a game of Blackjack (Study 1) or taking the initiative to shut off a fan positioned to annoy them (Study 2). Related to social interactions, in Galinsky et al.’s (2003) Study 3, the researchers had participants decide how they would act in either a public goods dilemma (i.e., if people do not contribute to a public service, such as PBS, it will go away) or a commons dilemma (i.e., a shared resource, such as fossil fuels, will go away if overused by everyone). They found that powerful participants were more likely than powerless participants to act in either instance. In other words, they were more likely to contribute to the service and to overuse the shared resource. Therefore, the motivation to act seems to occur regardless of whether there or pro or antisocial consequences for the action. In summary, regardless of whether the behavior was directed at inanimate objects or interaction with others, holding power in these studies resulted in an increased amount of actions being committed by the power-holder (in comparison to those who were powerless).

**Mechanisms behind power’s effect on actions.** So, why do people who hold power become more likely to commit to actions? The work of Keltner, Gruenfeld, and Anderson (2003) may help to explain this process. According to these researchers, power enhances approach-related behavior because of the access a powerful individual has to resources (i.e., “If I have power, I can make it happen because of the things/people I have
backing me”) and they can act without fear of possible consequences. As seems evident from news reports, the powerful sometimes have a way of avoiding severe punishment for crimes they have committed. Also, if a boss acts in a way that employees dislike, the workers cannot fire the boss. Keltner et al. (2003) have suggested that outcomes from holding positions of power include feeling positive affect, paying more attention to opportunities for rewards (which may make them more likely to be earned), automatic information processing, and disinhibited behavior. Therefore, when trying to pursue goals, those with power may be able to quickly spot the objects in their environment that could help with said goals and be more likely to take a chance at acting towards them than those who are powerless. The hypotheses presented by this group of researchers is consistent with existing data on power in the literature (e.g., Anderson & Berdahl, 2002; Anderson & Galinsky, 2006; Bargh, Raymond, Pryor, & Strack, 1995; Ebenbach & Keltner, 1998).

**Legitimate power:** However, this power dynamic may not be the only way in which people are more motivated to act. Action seems to be based on an interplay between power and the legitimacy of said power. Legitimacy of power is an issue that has long been discussed in connection to the power concept in philosophy and research. One of the first groups of researchers to talk about this issue was French and Raven (1959). In this chapter, they listed several different types of power (i.e., reward, coercive, referent, and expert power). Especially pertinent to this discussion is their coverage of another type – legitimate power. What the authors meant by this term is that the power-holder’s position was given to him or her for valid reasons. According to these authors, legitimate power can arise from several different sources including cultural values, a person’s
acceptance of society’s structure, and the power’s designation by another person that is seen as having legitimate authority. These sources give authenticity to the power, making the powerless feel that those in charge have a right to be in the position that they are in. Legitimacy is an important moderator to consider with power dynamics. For instance, illegitimate power-holders may feel a heightened sense of threat regarding their positions (Rodriguez-Bailon, Moya, & Yzerbyt, 2000) whereas those who are illegitimately powerless may desire to change the system (Major, Gramzow, McCoy, Levin, Schmader, & Sidanius, 2002).

**Early experimental research on legitimacy.** French and Raven also experimentally tested legitimacy of power and its effect on individuals’ behavior (Raven & French, 1958a; Raven & French, 1958b). The basic methodology of these studies involved an assembly line group task. Some participants were going to be completing the task of cutting out cardboard puzzle shapes while one of the individuals would be the supervisor judging the quality of the work. This supervisor was determined through a rigged election such that it was always given to a confederate. Legitimacy was manipulated by either keeping the supervisor the same throughout the task (i.e., legitimate power, as determined by the election) or it was switched to another confederate participant who simply did not want to participate in the manual labor (i.e., illegitimate power). In general, these studies revealed that legitimacy increases attractiveness of power holders, leads to private acceptance of their influence, greater acceptance of their position as well as greater justification for their supervisory behavior. Other work has found that higher levels of legitimacy reduce resistance against sources of power (French, Morrison, & Levinger, 1960).
**Power and legitimacy interaction.** Legitimacy of power could interact with power itself and alter the willingness to act in a situation. Lammers, Galinsky, Gordijn, and Otten (2008) explored this interaction between power and legitimacy of said power across several studies. Through experimental manipulations, the experimenters made participants feel either like they had power or that they were powerless (e.g., through word primes or by use of paradigms derived from those in Galinsky et al., 2003 – the group role manipulation and “imagine a time when” essay). They also then manipulated whether this power position was due to legitimate or illegitimate means (i.e., if it was deserved or not). For instance, with the Leadership Questionnaire paradigm, participants either believed that they were assigned to the role of manager or subordinate due to their survey score (legitimate reason) or that their scores were ignored and the decision was determined based on their gender instead (illegitimate reason).

Across their studies, the effect power had on people’s actions was moderated by the legitimacy of this power. When the division of power was based on legitimate reasons, the results replicated the previously discussed literature – legitimate power participants were much more likely to act than those who were legitimately powerless. However, the opposite seemed to occur for those whose power position was determined by illegitimate means. Illegitimate powerless participants were as likely to act (if not more) as those who held illegitimate power (e.g., in actions such as negotiating the price of a new car and engaging in risk-taking). Frequently, targets of prejudice may find themselves in positions of illegitimate powerlessness due to prejudice existing at a structural level. Therefore, this literature could suggest that these types of unfair power
structures may make them more willing to perform actions such as confronting prejudice, even though they are without power.

*Power x Legitimacy’s effect on goal pursuits.* Other researchers have also examined legitimacy’s moderating effect on power dynamics, specifically in the avenue of goal pursuit. Willis, Guinote, and Rodrguez-Bailn (2010) examined the differences between those who are legitimately and illegitimately powerless in their self-regulation processes related to goals. In Study 1, those primed with illegitimate powerlessness later took less time to set goals in a decision-making exercise and generated more goals overall, thereby exhibiting flexibility in their goal pursuit. Study 2 examined goal persistence. Compared to those who were legitimately powerless, illegitimate powerless participants strived for a longer period of time at a computer word search task. These results suggest that illegitimate powerless individuals may be especially capable of accomplishing their goals. The illegitimacy of their lack of power motivates them not only to act but in a way that may make goal pursuit more effective (i.e., quicker, creating more options to reach the desired end-point, and being persistent). If this is true, for those who are activist-prone, confronting prejudice could be seen as a goal that they desire to achieve. Being in a position of illegitimate powerlessness may motivate these individuals to pursue the steps needed to maintain their values and to figure out a way to do so successfully.

*Power’s impact on control:* Control seems to play an important role in the effects that power can have on people. Numerous researchers have found that the amount of perceived control individuals feel in a situation mediates power’s effect on variables such as health-related behavioral intentions (Godin, Gagne, & Sheeran, 2004) as well as optimism, self-esteem, and action orientation (Fast, Gruenfeld, Sivanathan, & Galinsky,
2009). In these studies, individuals with power (as opposed to those who are powerless) experienced higher amounts of control and this higher control mediated the increased amount of action found in power-holders. In addition, this feeling of control may be either realistic on the power-holder’s part or illusory (Fast et al., 2009). Whatever the case may be, control seems to be a driving force behind many outcomes that result from having power.

**Possible connection between control and legitimacy.** It is possible that the increased actions of illegitimate powerless individuals also stem from feelings of control. However, for these people, it seems likely that rather than feeling control over the situation, they are experiencing a lack of control. Because their situation is derived from unfair circumstances, illegitimate powerless individuals may feel driven to regain control. To do so, they may perform actions similar to those who are legitimately powerful. This is consistent with arguments contained in self-regulation theory (e.g., Scheier & Carver, 1988), which is a model for when people alter their behaviors. According to this theory, people will compare their current actions to a “reference value” and if there is a discrepancy between where people are at and where they want to be, they will try to reduce the discrepancy by adjusting their behavior. In the present studies, if illegitimate powerless individuals compare their present state to the idea that they should be fairly treated, then they may try to correct for this lack of fairness by asserting more control through their actions.

**Discrete Emotions**

Another possible mechanism not yet discussed in the power literature is the role of discrete emotions. According to discrete emotions theory, there are core emotions that
every human universally experiences and these specific emotions add importantly to our understanding of human behavior, above and beyond emotional arousal and valence (see DeSteno, Petty, Wegner, & Rucker, 2000; Keltner & Gross, 1999; Lazarus, 1991). The amount of specific emotions proposed to exist differs across theorists, but the discrete emotions consistently emerging in theories are happiness, sadness, surprise, anger, disgust, contempt, and fear (Izard & Malatesta, 1987). Each emotion can have a specific influence on behaviors by impacting the way in which individuals perceive events and objects (Lerner & Keltner, 2000). For example, fear and anger, although both negatively valenced, tend to elicit different reactions from people. Studies have found that in regards to risk perception, fearful individuals make more pessimistic assessments whereas angry individuals make more optimistic ones (Lerner & Keltner, 2001). The study of discrete emotions is relatively new in social psychology and this research has wide-reaching implications, affecting such things as persuasion (DeSteno, Petty, Rucker, Wegener, & Braverman, 2004), memory (Levine & Pizarro, 2006), suggestibility (Levine, Burgess, & Laney, 2008), information accessibility and policy preference (Nabi, 2003). With discrete emotions’ impact on perception and behavior, it is possible that they could also affect actions related to power in ways specific to the emotion experienced.
Chapter Two

Purpose of the Present Studies

This manuscript will examine the relationship between confrontation behavior, power, and legitimacy of said power in a series of studies. Previous research suggests that the majority of individuals tend to not confront prejudice despite wanting to (e.g., Swim & Hyers, 1999). However, this inaction could be problematic for those who desire to confront because of the negative consequences that arise from not confronting (e.g., Shelton et al., 2006; Rasinski et al., 2011) as well as the loss of any potential benefits that could happen from confronting, such as lessening a perpetrator’s future bias (Czopp et al., 2006). Therefore, examining possible moderators of confrontation, such as power, will help clarify why people do not confront and which variables increase this behavior for those who wish to do so.

Additionally, this research will not only add to the literature on prejudice but it will also provide information regarding the construct of power as well; particularly in regards to the theorized moderating effect that legitimacy of power has on one’s actions. More specifically, prior power research has primarily involved mundane actions such as cutting out shapes (e.g. Raven & French, 1958a; Raven & French, 1958b) and turning off fans (e.g. Galinsky et al., 2003). Exploring the interaction between power and legitimacy in regards to confrontation behavior would take this concept to a more meaningful domain for everyday actions and relationships with other people. Finally, this set of studies could also help us understand what type of factors, such as perceived control and discrete emotions, could mediate power’s effects on actions. As mentioned in Fast et al. (2009), while control has been found to mediate power’s effects in general, researchers
have yet to explore how this mediator may relate to the Power x Legitimacy interaction. It is also possible that another mediator, such as discrete emotions, may be driving the effect instead. This Power x Legitimacy interaction has been produced in numerous studies but the mediating variable for it is yet unknown. Therefore, this research will add to the discussion on the possible mechanisms behind the interaction.
Chapter Three

Hypotheses

Hypothesis 1: Power Increases Confrontation Behavior

First of all, I hypothesize that overall, having a position of power will make one more likely to confront prejudice. As discussed earlier, individuals with power are more likely to commit actions than those who do not (Galinsky et al., 2003). Subsequently, this increased motivation to act may also translate into powerful people being more willing to perform the act of confronting. This especially may be the case because individuals with power have more in the way of resources and have less negative consequences to worry about (Keltner et al., 2003). In other words, individuals with power may feel more control over their social environment, giving them the confidence with which to confront. One of the reasons that most people do not confront is the social repercussions of doing so (Shelton & Stewart, 2004). Individuals with power would be less likely to have to worry about the social costs of confrontations because of the additional resources they have at their disposal. For instance, if the perpetrator is unhappy with the powerful confronter’s opinion, he or she will most likely have to begrudgingly take the criticism because the confronter’s position buffers them from harm. You cannot fire your boss for pointing out biases in your behavior or cease all interactions with the person. This hypothesis will first be examined in a Pilot Study and is connected to Hypothesis 2a.

Hypothesis 2: Power and Legitimacy of Power Will Interact to Determine Confrontation Behavior

Although power may play a role in general for how likely it is for someone to confront an act of prejudice, this effect could be qualified by another variable –
legitimacy of power. Previous power research has found that the increase in action from power was altered by the legitimacy of said power (Lammers et al., 2008; Willis et al., 2010). Therefore, if there is an effect of power on confrontations, power alone may not be enough to explain what happens. Specifically, whether or not a person speaks out could depend on whether their power dynamics is based on legitimate or illegitimate reasons. To clarify this interaction hypothesis (explored in Study 1), Hypothesis 2 is broken down into two sub-hypotheses: Hypothesis 2a and Hypothesis 2b.

**Hypothesis 2a: Legitimate power increases confrontation behavior.**

Hypothesis 2a extends Hypothesis 1, which pertains to an overall effect of higher power on confrontations. This hypothesis specifies how confrontations can be influenced by the addition of the legitimacy variable. Specifically, it may be that the increase of confrontations only occurs if the power held is legitimate. If someone is given power for legitimate reasons, they may be more likely to confront prejudice because they may feel that they have enough control over the situation to do so. On the other hand, those who have illegitimate power may not be as likely to confront as those with legitimate authority. For these illegitimate power individuals, they may realize that they only hold their power because of unfair reasons. Therefore, the illegitimately powerful may be unlikely to act because they are afraid of risking the tentative grasp they have on this power (Lammers et al., 2008). In other words, they may not feel enough control over the situation to speak out. Without a firm backing in their position, illegitimate power holders may be afraid to confront because it could open them up for criticism, which may cost them what bit of power they have managed to receive.
Hypothesis 2b: Illegitimate powerlessness can also increase confrontations.

On the other hand, based on the findings of other researchers who have explored the interaction between power and legitimacy (Lammers et al., 2008; Willis et al., 2010), under the right conditions, powerless individuals may too be motivated to act and pursue their goals because they hope to change the unfair position they have been placed in. These studies suggest that people under illegitimate powerlessness are just as likely to act as their legitimate power counterparts, which could in turn mean that these individuals would also be likely to confront prejudice. Confronting a perpetrator may allow these individuals to regain control of a situation that they were unfairly given. The lack of control they feel over a situation they did not deserve receiving may drive them to confront in an attempt to better their situation. If the inaccuracies of their weaknesses are pointed out, maybe they will eventually not be stuck in the position of underling. These findings could replicate real-world realities for targets of prejudice who often find themselves in positions of powerlessness simply due to their gender or color of their skin. When making hiring decisions, social categories of applicants (an illegitimate reason) should be less important than competencies one has (a legitimate reason). However, illegitimate reasons are still made in these decisions due to stereotypes that persist in our culture. In contrast, legitimate powerless individuals will not have this same motivation to confront because they will not feel as strong of a desire to change their role or to regain control given that they have fairly earned their lower placement.

Hypothesis 3: Legitimacy Awareness Impacts the Effect of Legitimacy

Study 2 will further examine the relationship between power and legitimacy to see if there are certain situational factors that could strengthen the effects proposed to be
found in Study 1. In our “politically correct” era, the power structure for many places of employment is still based on illegitimate reasons (for instance the color of one’s skin or gender). However, we know that not everyone confronts prejudice. Therefore, what situational factors could alter this relationship between power and legitimacy on confrontation likelihood? What is the difference between the silent worker and the Civil Rights activist, both of whom are under illegitimate powerless conditions? Perhaps the difference is whether they recognize the illegitimate nature of their position. In some cases people may just take for granted the power structure in society as “that’s just the way it is” whereas in other cases, people may realize that positions are distributed due to unfair reasons and may wish to stand up for their beliefs. I hypothesize that when participants are in a situation that is easier to recognize the illegitimacy of the power (i.e., awareness condition), the impact of legitimacy will be stronger than conditions under which participants have a much harder time recognizing the illegitimacy of their situation (i.e., control condition).
Chapter Four

Proposed Mechanisms

In addition to the above hypotheses, I will also be trying to determine the underlying mechanisms for the proposed effects I am predicting. I will focus my attention on two possible underlying mechanisms: Changes in perceived control and changes in discrete emotions. These competing mechanisms will both be tested out in Study 1 through mediational analyses.

Proposed Mechanism 1: Perceived Control Mediates the Power x Legitimacy Interaction

One possibility is that perceived situational control mediates the predicted relationships. Previous researchers have found that power satisfies the need for control (e.g., Inesi, Botti, Dubois, Rucker, & Galinsky, 2011). Based on previous findings (e.g., Fast et al., 2009; Godin et al., 2004) high amounts of perceived control (which is predicted to occur with the legitimate powerful in the current research) mediates power’s effect on dependent measures.

Lack of perceived control could also be a driving force behind the proposed increased confrontation rates for illegitimate participants. If increased confrontation rates are indeed found for these participants, I should find evidence that these effects are at least partially accounted for by reports of perceived control in a meditational analysis (see Study 1). Reactance theory (Brehm, 1966) would suggest that when an individual experiences a loss of control (such as that experienced by illegitimate participants in this study), they have a desire to regain this control. Research in the power literature also suggests similar outcomes. According to Inesi et al. (2011), control needs are satisfied
through holding power and if people are deprived of this control, they may try to regain it. Illegitimate powerless participants’ lowered position exists solely because of unfair reasons, possibly leading these participants to want to take back control. Through this process of wanting to regain control, they may be especially inclined to point out biased behavior in someone they are interacting with.

**Proposed Mechanism 2: Discrete Emotions Mediate the Power x Legitimacy Interaction**

A second possibility is that power could affect the discrete emotions that a person experiences, which in turn determines whether or not they will confront an act of prejudice. In line with previous research which has found different outcomes for distinct emotions, such as anger and fear (Lerner & Keltner, 2001), it is possible that the various states of power result in specific emotional states, which in turn lead to a variety of outcomes. For these particular analyses, I will be examining the emotional states that may result in increased action (i.e., higher rates of confrontation, see Study 1).

**Proposed Mechanism 2a: Pride mediates confrontation rates for legitimate power individuals.** In looking at the two cells that I predict increased confrontation rates to exist, it is quite possible that discrete emotions would mediate the effect. However—and importantly, in each case it could be a different type of emotion that is driving the outcome. In regards to individuals with legitimate power, they may feel a sense of pride in themselves given that they have earned a position of management with the skills they possess. According to Smith and Ellsworth (1985), pride is associated with high attention and certainty as well as feelings of self-responsibility. These states seem similar to that in which someone with legitimate power would be feeling. She earned her position fairly.
and therefore feels certain about her place in the structural hierarchy. Additionally, being in the manager position may lead to more attention over the task given her responsibility for it. Therefore, when a negative situation that could disrupt her position, such as a biased individual, presents itself, this positive feeling of pride may give them the added motivation needed to confront.

**Proposed Mechanism 2b: Anger mediates confrontation rates for illegitimate powerless individuals.** In contrast, for those who are illegitimately powerless, they may instead experience feelings of anger due to the unfairness of the position they have been relegated to given that they do not deserve to be there. People who are angry appraise negative events as being predictable, under human control and due to the actions of others (Lerner & Keltner, 2000). In this particular situation, the illegitimately powerless individual will realize that the position is due to the outside influence of others, rather than due to poor performance on her part. She may also see this state as changeable given that it is caused by others’ doing rather than unfortunate circumstances. While anger is a negative emotion, it is also one that seems to be related to approach-based behavior and angry people’s appraisals have been shown to more closely mirror those who are happy than those experiencing other negative emotions, such as sadness (Lerner & Keltner, 2000). Therefore, this anger they feel regarding the unfair situation may also drive those who are illegitimately powerless to confront instances of biased behavior.
Chapter Five

Pilot Study Method

An initial Pilot Study was conducted to assess the possibility that power increases confrontation behavior. Further, this Pilot Study was conducted to test a possible paradigm for Studies 1 and 2. In the Pilot Study, I did not test for possible mediation.

Participants and Design

46 female undergraduate students (mean age = 19.78, SD = 3.45) were recruited through the Introduction to Psychology subject pool and received course credit for their participation. Because women should be more likely to react negatively to sexism than men (e.g., men often find sexism more humorous than women: Chapman & Gadfield, 1976; Love & Deckers, 1989), our sample included only female participants. The recruitment of target participants only from an undergraduate sample is common in research on the confrontation of prejudice (e.g., Shelton et al., 2006; Swim & Hyers, 1999; Woodzicka & LaFrance, 2001).

For this Pilot Study, I employed one manipulation. Specifically, half of the participants were randomly assigned to a condition in which they had power, whereas the other half were assigned to a condition in which they were powerless.

Procedure

Cover story. Participants took part in individual sessions for a study ostensibly about group decision-making. Upon arrival, participants were placed in a small room with a computer and a (female) experimenter presented the study’s cover story (see Appendix A for experimenter script). The experimenter informed participants that the study involved understanding how people work together in groups. She further explained
that frequently in business settings, people communicate with individuals they have never seen before, through the use of technology. To replicate this situation, participants were told that they would be making decisions with another person down the hall through an online chat program. In reality, there was no other participant down the hall and the responses during the interaction were pre-programmed responses provided using the MediaLab software program (Jarvis, 2008). This methodology of a preprogrammed “confederate” has been successfully utilized in other confrontation research (e.g., Rasinski et al., 2013).

The experimenter performed several actions to affirm participants’ beliefs that they were indeed interacting with another student. At certain points in the study, the experimenter left the participant in the laboratory room alone for several minutes under the pretense that she was giving the other participant down the hall the same set of instructions. Further, during the course of the instructions, the experimenter took a photograph of the participant and then presumably downloaded a photograph of the “other participant”, Ryan, onto her computer as an avatar, allowing the participant to see who she was going to be working with. Additionally, the experimenter “tested the internet connection” by having the participant type in the word “blue” into her chat window. Afterwards, the experimenter supposedly went down the hall to ask Ryan to type in the word “red” as a response. After a few minutes, “red” appeared on the participant’s screen, accompanied by a traditional chat program sound indicating a received message. Following the instructions, the experimenter left the room, returning once the group interaction was completed.
Leadership Questionnaire. The first task participants completed was a survey on the computer entitled the Leadership Questionnaire (see Appendix B). This survey consisted of Lewin, Lippit, and White’s (1939) 18-item leadership style questionnaire. This survey supposedly determined which one of the dyad would be the manager and which would be the worker in the upcoming group tasks. In reality, the results of the survey were bogus. Participants were assigned to either the power (i.e., the manager) or powerless (i.e., the worker) position based on which condition they were in. A similar paradigm has been used by other power researchers (e.g., Anderson & Berdahl, 2002; DeWall, Baumeister, Mead, & Vohs, 2011; Galinsky et al., 2003; Lammers et al., 2008; Manner, Galliot, Butz, & Peruche, 2007). After completing the survey, messages on the computer monitor appeared indicating that the computer was analyzing their responses. These messages were followed by the supposed results of the survey. Participants saw one of two descriptions, depending on condition:

**Power condition:** Your role in the upcoming group task will be **manager**. Your responses on the Leadership Questionnaire suggest that you have all of the necessary qualities of a good leader. You have the ability to take charge in situations, and other people listen to what you have to say. For these reasons, you have been selected to be the manager in the upcoming decision making task. You will be in charge of distributing and supervising the work of the other participant, who will be the worker, in the group task.

**Powerless condition:** Your role in the upcoming group task will be **worker**. Your responses on the Leadership Questionnaire suggest that you perform better in a structured environment where someone else is making the decisions and you
are expected to carry out the necessary work. For these reasons, you have been selected to be the worker in the upcoming decision making task. The other participant will be the manager and be the one in charge of distributing and supervising the work in the group task.

**Biographical Questionnaire.** After the Leadership Questionnaire, participants began the portion of the study in which they interacting with the “other participant” (for the sake of brevity, the pre-programmed responses generated by the computer will be referred to as a “confederate” although there was no actual *actor* in the other room). The first part of their interaction was the Biographical Questionnaire (see Appendix C for confederate responses). Participants were informed that this component of the task would allow the partners to get to know each other before working together. In reality, it was included to further the belief that there was actually another person conversing with them. The chat system directed the pair on what type of questions they should be answering. Participants shared with their partner information such as name, age, and hobbies. The confederate’s responses were designed to feel like how a typical undergraduate student may speak during an instant messenger session. Very little capitalization was used. Occasionally there were misspellings and missing punctuations. For instance, for hobbies, his response was “music, doinstuf with friends tv”.

**Deserted Island Task.** After the brief Biographical Questionnaire, participants completed a group decision-making task based on one developed by Swim and Hyers (1999). This task involved selecting individuals from a list of fictional people that participants believed would be most helpful for survival on a deserted island (see Appendix D). This list consisted of 15 males and 15 females and included these fictional
individuals’ photographs and occupational information, such as doctor, mechanic, and carpenter. Participants were asked to take turns making selections with their partner, creating a list of 12 people that they thought would be the most useful for survival out of the list provided.

Once again, the confederate’s responses were taken from pre-programmed information (see Appendix C). Ryan (the other participant) would occasionally offer affirming feedback to the participant to make the conversation smooth as well as acknowledging the participant’s response (e.g., “that’s a good one” and “I didn’t think of that one before but I guess I can see where that would be good”). This was also included to establish a norm of offering feedback to the selections made during the task.

Participants typed their personal selections into an internet chat screen. Each of these responses was saved onto the computer by means of the MediaLab software program, allowing the possibility of coding upon completion of the study. The first five of Ryan’s selections were male with the final one being a female. Three of his responses were designed to be neutral/filler responses that were unrelated to gender. However, the other three were intended to exhibit sexism. For selection four, the confederate said “sure we can go with that. ill choose the trainer. we definitely need to keep the women in shape”. During selection eight, he said, “maybe a chef? no, one of the women can cook. ill go with the student instead he’s somone we could relate to”. Finally, for selection twelve, Ryan ended with, “i’ll choose the photographer. she’s pretty hot. we need more women on island to keep the men satisfied”.

Measures

Quantitative confrontation scale. Immediately following the Desereted Island Task, participants were asked to evaluate Ryan’s performance on the task on several
survey items. Participants were told that the feedback they provided would be transmitted to Ryan through the internet connection they had been using during the course of the study. Because the responses were to be given to the confederate, these items can be considered a type of confrontation behavior. The items the participants answered were on a seven point scale, ranging from $1 = \text{not at all}$ to $7 = \text{very much}$. One question involved agreement with his responses: “Overall, how much did you agree with your partner’s selections?” The other four followed a similar format to each other, asking, “How [knowledgeable, fair, thoughtful, persuasive] were their decisions?” The five items were averaged together to create a quantitative confrontation index with lower answers reflecting less agreement for their partner’s selections. ($\alpha = .96$). Overall, the scale had a mean of $4.50$ ($SD = 1.55$) with a range of 6. It had a skewness of $-.22$ ($SE = .25$) and a kurtosis of $-.91$ ($SE = .49$). This suggests that this scale had no issues with skew but was slightly platykurtic in nature.

**Confrontation coding of qualitative responses.** After the study’s completion, three coders (one male and two females) coded the participants’ responses to Ryan throughout the course of the Deserted Island Task. They rated these statements on the degree of confrontation that was exhibited to each of Ryan’s three sexist comments (i.e., by answering the question “How did the participant respond back to Ryan?”). Coders used the following criteria in their responses, ranging from agreement with the sexism to a strong confrontation against it: A rating of 1 equaled “Expressed real agreement/thinks what he said is the right answer”. A coding of two equaled “Ignored what Ryan said/talked about something else”. Three equaled “Questioned Ryan’s response (e.g., ‘really?’ ‘I don’t know…’) /agree with uncertainty”. Four equaled “Contradict his
answer/express dissatisfaction”. Finally, a rating of five was “Direct confrontation (e.g., ‘you’re sexist!’)”. Each coder’s three responses were averaged together, creating a composite score for the level of confrontation they perceived to be exhibited in the entire study for each participant. In turn, these three overall ratings from the different coders were then averaged together (α = .95) to create a single confrontation coding variable. The mean for this scale was 2.45 (SD = .79) with a range of 3.56. The skewness was .81 (SE = .25) suggesting a slightly positively skewed distribution. The kurtosis was .10 (SE = .50) which suggests that there were no issues with kurtosis for this measure.

**Funnel debrief.** After participants had completed the study, the experimenter returned to the room, administering a funnel debriefing in order to probe the participant for suspicion (see Appendix E). Questions started out more generally such as “Were the directions clear and easy to understand?” to items such as “Did your partner say anything you disagreed with?” If participants indicated suspicion, this was noted and they would be asked a follow-up question of “When did you first begin to suspect that something was unusual?” At the completion of these questions, participants were thanked for their participation in the study and were informed of its true purpose and deceptive elements. Additionally, the experimenter answered any questions the participant may have had about the study. During the course of debriefing, most of the participants (93%) did not report any suspicion, suggesting that the cover story was largely believable. However, three participants (out of 46) expressed suspicions regarding the nature of the study and are thus excluded from the analyses.
Chapter Six

Pilot Study Results

Z-scores were created for both the quantitative confrontation index as well as the qualitative confrontation coding index. These two standardized dependent measures were negatively related to each other \( r = -0.55, p < .01 \). A repeated measures ANOVA was then conducted with the z-scores of both measures entered in as dependent measures with the manipulated variable (power) entered in as the independent variable. First, I looked at the within-subjects factor by condition interaction to see if there were any significant effects associated with differences between the two measures. These within-subject factor effects (i.e., main effect of the within-subject factor and the interaction between the within-subject factor and condition) were not significant \( (p_s > .68) \). This indicates that there were no differences between the two dependent variables, suggesting the two measures of confrontation are responding similarly in this study.

I then looked at between-subjects effects to see if there was a difference for these two dependent measures by condition. There was a trend for differences between the power and powerless conditions, \( F(1,42) = 3.45, p = .07, \eta_p^2 = .074 \), however results did not reach conventional levels of significance. An examination of the condition means indicated that the powerless condition had a lower mean confrontation rate \( (M = -0.09) \) than those in the power condition \( (M = 0.17) \). Because the scoring of the confrontation variables were such that higher scores indicated higher rates of confrontation, these results suggest that those receiving power were somewhat more likely to confront than those who were put in a powerless position (which would support Hypothesis 1).
Chapter Seven

Study 1 Methods

The findings of the Pilot Study, although only marginally significant, were encouraging—suggesting that power may indeed alter confrontation behavior. Further, the results supported the use of this laboratory design in examining the effect. Study 1 built off of the preliminary finding provided in the Pilot Study to more fully examine my hypotheses regarding the role of power and legitimacy of power in the confrontation of prejudice. Specifically, Study 1 again tested Hypothesis 1 – that power can increase the likelihood of confrontations. Because of the marginal significance of the Pilot Study, steps based on previous power research were taken to strengthen the manipulation in Study 1. New to Study 1 are the tests of Hypothesis 2 and the proposed mechanisms. In this study, I intended to see whether legitimacy and power interact to affect confrontation likelihood (Hypothesis 2) as well as the underlying cause of the predicted effects – a predicted mediation due to either perceived control or discrete emotions.

Participants and Design

Participants were 134 female undergraduates (mean age = 18.68, $SD = 2.31$) recruited from The University of Toledo Introduction to Psychology participant pool. They received course credit for their involvement in the study. This study utilized a 2 (power condition: power or powerless) x 2 (legitimacy condition: legitimate or illegitimate) design.

Procedure

Study 1 used the same basic paradigm as the Pilot Study with the inclusion of an additional manipulation. Once again, students participated in a study they were told
involved group decision-making. Similar to the Pilot Study, participants were informed that another participant, “Ryan”, would be their partner for several group tasks that take place over the computer (using the same on-line instant messenger procedure). The steps taken to ensure the believability of a second participant’s existence (e.g., inclusion of a male confederate’s photograph, the experimenter “testing the internet connection”) as well as the confederate’s scripted responses were utilized again.

**Additions to Study 1.** There were a few additions to Study 1’s script (see Appendix F) that were included to strengthen the effect of power in this paradigm.

**Alterations to position titles.** First, to strengthen the status differential between the participant and the confederate, the “worker” title was altered to “subordinate” in this version to match what prior researchers have done in studies that have manipulated both power and legitimacy (e.g., Lammers et al., 2008). The title of “manager” was left unchanged. The connotation behind the term “subordinate” was intended to ensure that participants would not desire to receive the less powerful position.

After the experimenter (always a female) delivered the study’s instructions to participants, they completed the Leadership Questionnaire, followed by the Pilot Study’s group tasks – the Biographical Questionnaire and Deserted Island Task. The two group tasks were identical to the ones previously described in the Pilot Study’s methodology. However, changes were made to the power manipulation that occurs after the Leadership Questionnaire, including the addition of a second variable – legitimacy of power. These changes will be described below.

**Power manipulation.** After completing the Leadership Questionnaire, participants received feedback on their computer screen detailing the supposed results of their survey
and their placement (either manager or subordinate) for the upcoming group task. The two manipulations for the study took place during this feedback screen. First, similar to the Pilot Study, the survey’s feedback manipulated the participant’s power over her group interaction. Once again, some participants were told that they would have power over the situation (i.e., they were designated the manager of the group tasks) and other participants experienced powerlessness (i.e., they were designated the subordinate in the group tasks).

**Legitimacy manipulation.** The second variable that was manipulated at this time was whether the position assignment was due to legitimate or illegitimate reasons (an addition to Study 1’s design).

*Legitimate conditions.* For those in the *legitimate* conditions, the feedback they received following the Leadership Questionnaire was identical to feedback that Pilot Study participants received. For these participants, their role assignments were decided by a fair reason – how they scored on the Leadership Questionnaire. In other words, those who supposedly scored highly on the survey were told that they would be the manager of the group and those who supposedly scored lower were placed as the subordinate of the group. In these conditions, the experimenter returned to the experiment room following completion of the survey and asked participants what role they have been assigned, supposedly as part of the routine of the study. After marking this information on a clipboard, the experimenter again exited the room to allow the participant to complete the interaction task by herself.

*Illegitimate conditions.* Importantly, however, participants in the *illegitimate* conditions received their position due to a frivolous, unfair reason – that the other participant, Ryan, did not like the position he received and asked the experimenter if he
could be switched. At first, participants in the two illegitimate conditions were assigned a specific position based on their computerized survey results, just like those in the legitimate conditions. However, for these participants, when the experimenter returned to the experiment room after completion of the Leadership Questionnaire, she informed participants that their power position had been switched. The experimenter told participants, “Now is the point in the study where we check in with students about the Leadership Questionnaire. What role were you assigned? [Waits for participant’s answer]. I already talked to Ryan and he wanted that position so we’re going to let him have it. You’ll be the [manager or subordinate – the opposite of their initial feedback] instead.”

This methodology of switching group positions based on another participant’s preference is how previous power researchers (e.g., Raven & French, 1958a; Raven & French, 1958b) have manipulated legitimacy. In these studies, a confederate did not want to be assigned to a position in a group task that involved manual labor and asked the experimenter if he or she could be switched from this role to the manager role in order to avoid getting dirty. This manipulation also mirrors what occasionally occurs in everyday life when people do not receive positions they have earned because another worker is more vocal about wanting said role.

**Measures**

**Leadership Questionnaire.** As mentioned earlier, participants completed Lewin et al.’s (1939) 18-item leadership style questionnaire as the survey that their power placement was supposedly based on. This questionnaire has items on a 3-point scale such as “I want group members to feel involved and relevant in the decision-making process”
and “When there are problems in the group, I work with members to arrive at a reasonable resolution”. I used democratic leadership items on this survey as a covariate in the analyses presented. Because participants were randomly assigned to their power position rather than the placements being based on actual abilities, individuals who naturally feel in charge of situations may have ended up in powerless conditions. Similarly, natural followers may have ended up in powerful conditions. As such, including these responses in analyses helped to control for participants’ dispositional leadership qualities in order to reduce error variance. The Leadership Questionnaire was not a significant covariate in Study 1, $F(1,129) = 1.79, p = .10, \eta^2_p = .014$. However, as will be presented later, it was a significant covariate in Study 2. The mean for this variable was 2.05 ($SD = .26$) with a range of 1.17. The variable's skewness was -.61 ($SE = .24$) and its kurtosis was -.01 ($SE = .47$) suggesting a distribution approximating the normal distribution.

**Quantitative confrontation.** Similar to the Pilot Study, Study 1 included ratings of the confederate after the Deserted Island Task that would supposedly be given directly to this fictional partner. Once again, these five questions were “Overall, how much did you agree with your partner’s selections?” and “How [knowledgeable, fair, thoughtful, persuasive] were their decisions?” The mean for the composite variable was 4.03 ($SD = 1.63$) with a range of 6. The skewness of this variable was .15 ($SE = .24$) which suggests that this variable was not skewed. The kurtosis was -1.11 ($SE = .47$) indicating that the distribution was slightly platykurtic in nature.

**Confrontation coding of qualitative responses.** Again, coders rated participants’ responses on a 5-point scale based on how confrontational they appeared to
be using the Pilot Study’s “How did the participant respond back to Ryan?” question. Responses utilized the same scale as the previous study (i.e., 1 = “Expressed real agreement/thinks what he said is the right answer” to 5 = “Direct confrontation (e.g., ‘you’re sexist!’)” The composite for this variable had a mean of 2.45 ($SD = .74$) with a range of 2.89. The skewness for the measure was .13 ($SE = .24$). As such, there appears to be no issues with skew for this measure. The kurtosis for this variable was -1.05 ($SE = .47$), suggesting that this distribution was also slightly platykurtic in nature.

**Affective coding of qualitative responses.** In addition to the previous coded item, an question was included for coders regarding the affectivity of participants’ responses to the confederate. Coders rated on a 5-point scale the following item: “Describe the participant’s emotional response to the confederate” with responses ranging from 1 = *extremely negative*, 3 = *neutral*, 5 = *extremely positive*. Responses to this item were reverse coded so that responses would be in the same direction as the coding pertaining to confrontation levels. Overall, the mean on this variable was 2.93 ($SD = .34$) with a range of 2.89. Additionally, the skewness was .03 ($SE = .24$) and kurtosis was -.36 ($SE = .47$). This suggests that the distribution for this variable approached the normal distribution.

**Perceived control items.** Following the group interaction and ratings of the confederate, participants completed survey items on the computer. Participants first saw a “closing chat session” screen before being directed to the survey to help ensure that participants believed their responses would be private. They also were informed through the survey instructions that their partner would not see the answers to their survey responses and that their answers will be confidential.
The first questions in this survey were nine created items that pertained to the control participants felt during the group task itself (see Appendix G). Three of these items were derived from Eatough (2010) replacing the word “supervisor” for “partner” and were on a 5-point Likert scale (1 = not at all to 5 = very much). The other six items were created specifically for this study and were on a 7-point Likert scale (1 = not at all to 7 = very much). This scale had a mean of 3.96 (SD = .96), a range of 5.47, a skewness of -0.06 (SE = .21), and a kurtosis of .82 (SE = .42). An example item from this set of questions is “I took charge of the decisions in the group task.” Two of the items instead asked participants how much they did not feel in control (e.g., “I needed to feel more in control of what was going on during the group task”). Additionally, one item regarded participants’ need to regain control (i.e., “I felt a need to regain control during the group task.”). These items were reverse coded such that higher scores on these items overall would reflect a higher amount of perceived control. Z-scores of these two scales were calculated and a composite variable was then created (α = .70).

**Discrete emotions items.** To test the other possibility of mediation (i.e., discrete emotions), I also included the Differential Emotions Scale (e.g., Izard 1972; Kotsch, Gerbing, & Schwartz, 1986). This 30 item scale (see Appendix H) measures ten different types of emotion: interest, enjoyment (i.e., pride), surprise, sadness, anger, disgust, contempt, fear, shame/shyness, and guilt. Each item lists a particular mood and participants are asked to rate the degree to which they feel that emotion on a 5-point scale ranging from 1 = rarely or never felt to 5 = very often felt. Of particular interest to the mediational analysis were the items pertaining to anger (i.e., enraged, angry, and mad; α = .92) and pride (i.e., delighted, happy, and joyful; α = .87). The rest of the emotions on
this scale were used as filler items and to maintain the general cohesion of the instrument. Regarding the anger scale, it had a mean of 2.38 ($SD = 1.24$), a range of 4, a skewness of .42 ($SE = .24$), and a kurtosis of -1.11 ($SE = .47$). The pride scale had a mean of 2.59 ($SD = 1.03$), a range of 4, a skewness of .38 ($SE = .24$) and a kurtosis of -.55 ($SE = .47$).

**Power manipulation check item.** The end survey also included a set of manipulation check items. First of all, I assessed participants' awareness of the power manipulation. One two-point question asked “What was your role in the decision-making task?” with response options being “Manager” or “Subordinate”. 74 participants responded with "manager" whereas 60 participants responded with "subordinate". This was despite there being 67 participants assigned to the power manipulation and 67 participants assigned to the powerless manipulation.

**Legitimacy manipulation check items.** Other items assessed the legitimacy manipulation. Participants were asked how the leadership roles were determined to see if they detected the legitimacy manipulation: “Earlier in the study, you were given a specific position for the group tasks. Why did the roles for the decision-making task get assigned the way they were?” with response options being “they were switched during the study”, “based on survey answers”, and “randomly chosen”. 61 participants indicated the first response, 61 participants indicated the second response and 12 participants indicated the third response. There was also a question that assessed participants’ perceived fairness of the manipulation. They were asked on a 7-point Likert Scale (1 = *not at all*, 7 = *very much*) “Did you feel that the leadership decision was fair?” This scale's mean was 4.50 ($SD = 2.05$) with a range of 6. It's skewness and kurtosis were -.36 ($SE = .21$) and -1.01 ($SE = .42$) respectively.
Chapter Eight

Study 1 Results

Manipulation Check Items

Power manipulation check. Because the question “What was your role in the decision-making task?” was a dichotomous item, I ran a logistic regression analysis. Power and legitimacy main effects were entered into the first step of the analysis with the Power X Legitimacy interaction entered into the second step. First of all, being in the power condition increased participants’ odds of indicating that they were the manager .01 times ($p < .001$). This indicates that individuals in the power condition were more likely to say that they were the manager than individuals in the powerless condition. However, response odds based on participants’ legitimacy condition were also significant ($p = .04$). Being in the illegitimate condition increased one’s odds of indicating they were the manager 9.85 times.

While it was not significant in the logistic regression analysis ($p = .19$), looking at the means in Table 1, it seems that there was a tendency for illegitimate powerless participants to answer this question incorrectly. There were 11 participants who incorrectly stated their roles in the group task: 8 illegitimately powerless, 1 legitimately powerless, 1 illegitimately powerful, and 1 legitimately powerful. Looking at the data further, participants in the power condition correctly indicated that they were the manager (coded as 0) regardless of whether they were in the legitimate ($M = .03$, $SD = .52$) or illegitimate conditions ($M = .03$, $SD = .53$). However, illegitimate powerless participants seemed less likely to correctly indicate that they were the subordinate (coded as 1, $M = .77$, $SD = .52$) than their legitimate powerless counterparts ($M = .97$, $SD = .53$).
**Legitimacy manipulation checks.** I also tested two manipulation checks assessing the legitimacy manipulation. The first analysis tested whether participants were aware of the reason why they were assigned their particular role in the group task (e.g., based on survey answers, they were switched during the study). The item regarding how the task positions were assigned was entered into a Power x Legitimacy two-way ANOVA. There was a main effect for legitimacy, $F(1, 130) = 38.32, p < .001$ with legitimate participants indicating that the decision was based on survey answers ($M = 1.94, SD = .81$) to a greater degree than illegitimate participants ($M = 1.33, SD = .81$, see Table 1 for additional means). Both the main effect for power and the interaction term were not significant, $ps > .95$.

The second analysis assessed participants’ psychological perceptions of fairness regarding the position assignment. The item that measured participants’ perceptions of fairness was also entered into a Power x Legitimacy two-way ANOVA. There was a main effect for legitimacy such that legitimacy participants ($M = 4.87, SD = 2.70$) were more likely than illegitimacy participants ($M = 4.01, SD = 2.70$) to find the leadership decision to be fair, $F(1,133) = 5.48, p = .02$. However, there was also a main effect for power such that powerless participants ($M = 3.80, SD = 2.70$) were less likely to find the decision to be fair than powerful participants ($M = 5.17, SD = 2.70$), $F(1,133) = 17.48, p < .001$. Finally, the Power x Legitimacy interaction was not significant, $F(1,133) = 0.30, p = .59$.

**Tests of Hypotheses 1 and 2**

**Composite coding variables.** Similar to the Pilot Study, responses to the quantitative confrontation items were averaged together ($\alpha = .96$) and a $z$-score was
created. A similar process was done with the independent rater codings of the qualitative data. For each coder, ratings for the three coding time points were averaged together to create an aggregated score for each participant. Afterwards, the three coders’ ratings for each participant were also averaged together to create a grand aggregated value. Codings were found to have a high inter-judge reliability (confrontation coding: $\alpha = .95$; affect coding $\alpha = .87$).

Scores for affect and quantitative confrontation were reverse scored to be in line with the qualitative confrontation coding variable such that higher scores indicated greater amounts of confrontation. These three variables were highly correlated with each other (qualitative confrontation and quantitative confrontation: $r = .56, p < .001$; affect & qualitative confrontation: $r = .90, p < .001$; affect & quantitative confrontation: $r = .62, p < .001$). The three dependent measures were entered into a two-way repeated measures ANOVA with power and legitimacy being the two independent variables. Each of these independent variables had two levels: power (power or powerless) and legitimacy (legitimate or illegitimate). Finally, scores on the Lewin democratic leadership scale were included as a covariate. Before running the main analyses, I looked at histograms, boxplots and frequencies of the study's dependent measures to check for outliers. Outliers were not found in the three main dependent measures. The only outliers that were detected were found in the power manipulation check item, as previously discussed.

**Within-subjects effects.** First, I looked at the within-subjects effects for the dependent measures. Neither of the main effects were significant - power: $F(1,129) = 1.72, p = .19$; legitimacy: $F(1, 129) = .12, p = .73$. Additionally, the within-subjects factor did not interact with the two conditions together, $F(1,129) = .33, p = .57$. This indicates
that the three dependent variables were moving similarly to each other and across conditions, and it is appropriate to collapse across them in data analysis. To test my hypotheses, I then looked at the between-subjects effects. Please refer to Table 1 to find a listing of raw means and standard deviations for each dependent variable by condition.

**Hypothesis 1.** Recall that I predicted that there would be a significant main effect for power, with higher power participants engaging in more confrontations. However, this effect did not reach significance, $F(1,129) = 1.15, p = .29, \eta^2_p = .009$. Power participants ($M = .08, SD = 1.25$) were not significantly more likely to confront than the powerless ($M = -.08, SD = 1.25$). Thus, Hypothesis 1 was not supported.

**Hypothesis 2.** In testing both parts of Hypothesis 2, I looked at the main effect of legitimacy as well as the interaction term. Hypothesis 2 predicted that a significant Power x Legitimacy interaction would impact confrontation rates. There was a marginally significant effect for legitimacy, $F(1, 129) = 3.67, p = .058, \eta^2_p = .028$. As anticipated, illegitimate participants were more likely to confront ($M = .15, SD = 1.39$) than legitimate participants ($M = -.15, SD = 1.39$). However, the Power x Legitimacy interaction term failed to reach significance, $F(1,129) = .437, p = .510, \eta^2_p = .003$.

**Hypothesis 2a.** For this hypothesis, it was predicted that legitimate power participants would be especially likely to confront their prejudiced partner. As previously mentioned, the interaction term failed to reach significance. For the purposes of exploration, I also looked at the condition means to better examine this hypothesis. As seen in Table 1, those in the legitimate power condition did not have higher confrontation rates ($M = -.12, SD = 1.76$) than those in the illegitimate power condition ($M = .28, SD = \ldots$
However, they did have a tendency to be higher than those who are legitimately powerless ($M = -0.18, SD = 1.81$).

**Hypothesis 2b.** It was also predicted that under the right conditions, powerless individuals would have high confrontation rates if they were illegitimately powerless. As depicted in Table 1, illegitimately powerless participants were not more likely to confront the confederate ($M = 0.02, SD = 1.77$) than their illegitimately powerful counterparts ($M = 0.28, SD = 1.76$). However there was a tendency for them to have higher rates of confrontation than those who were legitimately powerless ($M = -0.18, SD = 1.81$) as well as legitimately powerful ($M = -0.12, SD = 1.76$).

### Log Transformation of Variables.

Because of the issues dependent variables' issues with kurtosis, I also log transformed each of the dependent variables then entered them into another two-factors repeated measures ANOVA with leadership scores as a covariate. The within-subjects effects were not significant, $ps > .44$. Looking at the between-subjects effects, the legitimacy main effect was significant, $F(1,129) = 3.94, p = .049$. Illegitimate participants confronted more ($M = .15, SD = 1.25$) than legitimate participants ($M = -.15, SD = 1.25$). Both the main effect for power, $F(1,129) = .91, p = .34$, and the Power x Legitimacy interaction, $F(1,129) = .48, p = .49$, were not significant.

### Univariate Tests.

**Quantitative confrontation variable.** To further explore the data, I also conducted separate univariate ANOVA analyses of each of the three dependent measures. First, I treated the quantitative confrontation variable as the only dependent variable in a Power x Legitimacy ANOVA. The legitimacy main effect was not significant but was in
the same direction as the composite variable analysis above, \( F(1, 129) = 2.42, p = .12 \).

Illegitimate participants tended to confront more (\( M = 4.19, SD = 2.32 \)) than legitimate participants (\( M = 3.75, SD = 2.32 \)). Neither the power main effect nor the interaction variable were significant, \( ps > .83 \).

**Confrontation coding variable.** Looking at the qualitative confrontation codings, the legitimacy main effect did not reach conventional levels of significance but was in the same direction as the composite variable analysis, \( F(1, 129) = 2.66, p = .10 \). Illegitimate participants tended to confront more (\( M = 2.50, SD = 1.02 \)) than legitimate participants (\( M = 2.30, SD = 1.02 \)). The main effect for power was not significant, \( F(1, 129) = 2.09, p = .15 \). There appeared to be a slight tendency for powerful participants to confront more (\( M = 2.49, SD = 1.02 \)) than powerless participants (\( M = 2.31, SD = 1.02 \)). The Power x Legitimacy interaction was also not significant, \( F(1, 129) = .58, p = .45 \).

**Affect coding variable.** Looking at the affect variable in a separate univariate ANOVA, the main effect for legitimacy was close to reaching conventional levels of significance, \( F(1, 129) = 3.73, p = .056 \). There was a tendency for participants under illegitimate circumstances to respond more negatively to their sexist partner (\( M = 3.16, SD = .79 \)) than those under legitimate circumstances (\( M = 2.97, SD = .79 \)). The power main effect was not significant, \( F(1, 129) = 1.73, p = .19 \). If anything, it looked like powerful participants were more negative in their reactions (\( M = 3.13, SD = .78 \)) than powerless participants (\( M = 3.00, SD = .78 \)). The Power x Legitimacy interaction was also not significant, \( F(1, 129) = .63, p = .43 \).
Tests of Proposed Mechanisms

Additionally, in Study 1, I tested to see if the perceived control or discrete emotion items included in the study would mediate the rate of confrontations found. Because the interaction was not significant and the legitimacy main effect was marginally significant, I tested to see whether these two proposed mechanisms would mediate the legitimacy main effect. I first followed the steps for mediational analysis proposed by Baron and Kelly (1986) conducting several regression analyses. Later, I will also present the results of a bootstrapping analysis I conducted.

In order to test both Proposed Mechanisms of perceived control and discrete emotions, the legitimacy main effect was considered the primary causal variable in separate mediation analyses. The dependent variable was the confrontation rates of the participants (i.e., the two qualitative coding variables and the quantitative scale averaged together). In the first mediation analysis, perceived control was assessed as the mediating variable, whereas in the additional mediation analyses, both the discrete emotions of anger and pride were assessed as possible mediators. As with the repeated measures ANOVAs, I controlled for Lewin’s democratic leadership scale (in addition to power condition) in the model.

Mediational analysis 1: Does perceived control mediate legitimacy’s effect on confrontation behavior?

Step 1: Legitimacy should predict confrontation rates. In Step 1, legitimacy was treated as a predictor variable with confrontation rates being the criterion variable. I found a trend for the legitimacy main effect to be negatively correlated with the outcome variable (in this case, confrontation rates), $t(132) = -1.93, p = .056, \beta = -.17$. 

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**Step 2: Legitimacy should predict perceived control.** For Step 2, legitimacy was once again the predictor variable with perceived control this time being the criterion variable. This step showed that legitimacy is indeed positively correlated with perceived control, $t(132) = 2.32, p = .022, \beta = .20.$

**Step 3: Perceived control should predict confrontation rates.** Step 3 tested to see if perceived control is correlated with confrontation rates, controlling for the legitimacy condition participants are in. To do so, I used perceived control as the predictor variable and confrontation rates as the criterion variable. I found a negative relationship between these two variables, $t(132) = -3.71, p < .001, \beta = -.31.$

**Step 4: Legitimacy’s effect on confrontation rates should be mediated by perceived control.** Finally, in Step 4, legitimacy was again the predictor variable with confrontation rates being the criterion variable, controlling for perceived control. If this was a full mediation, legitimacy’s effect on confrontations should no longer be significant. This was indeed found to be the case, $t(132) = -1.24, p = .216, \beta = -.11.$ Additionally, I conducted a Sobel test to determine if this mediation is significant (see Figure 1). According to this test, the mediation was marginally significant, $Z = -1.92, p = .055.$

**Perceived control bootstrapping.** In addition to Baron and Kenny’s (1986) method of mediational testing, I also included bootstrapping analyses to be consistent with current presentations of mediation in social psychology outlets. Bootstrapping is becoming a popular technique for analyzing mediation because of the increased statistical power this method offers in addition to requiring fewer assumptions than traditional approaches. According to Preacher and Hayes (2008), this procedure involves repeatedly
resampling from a data set (often this is done thousands of times) so that we can create an estimation of the sampling distribution. From this information, we can then look at the confidence intervals of the indirect effect. If a confidence interval computed from the bootstrapping analyses includes 0, this indicates that the mean differences were equal to each other (i.e., there were no significant differences by condition). On the other hand, if the confidence interval does not include 0, the indirect effect's means were different from one another, indicating an effect by condition (i.e., mediation occurred in the data).

Analyses were conducted using a bootstrapping macros created for SPSS by Hayes (2012). The three dependent variables were aggregated into one variable before being entered into the analysis. Power and leadership scores were entered in as control variables, legitimacy was entered in as the independent variable, and perceived control was entered in as the potential mediator. Based on the work of previous researchers, I had the software resample the data 5000 times (i.e., $n = 5000$ bootstrap resamples; Preacher & Hayes, 2008). Looking at the indirect effect of legitimacy on the dependent measures, control had a weight of -.11 ($SD = .69$). The 95% confidence interval of the estimated sampling distribution did not include zero ($LLCI = -.25$, $ULCI = -.02$). In bootstrapping analyses, confidence intervals that do not include zero suggest that the indirect effect is significant at the .05 level. In summary, this mediation analysis provides evidence that perceived control statistically mediated the effect of legitimacy on confrontation.

**Mediational analysis 2: Do discrete emotions mediate legitimacy’s effect on confrontation behavior?** It is possible that discrete emotions may also mediate legitimacy’s effect on confrontations. As such, I also conducted two different mediational analyses to test this possible mechanism. In one mediation test, I used anger as the
potential discrete emotions mediator. In the other test, I used pride as the potential mediator.

**Step 1: Legitimacy should predict confrontation rates.** As previously discussed in the first mediational analysis, there was a tendency for legitimacy to be negatively correlated with confrontation rates, $t(132) = -1.93, p = .056, \beta = -.17$.

**Step 2: Legitimacy should predict the discrete emotion.** Step 2 tested condition’s correlation with the discrete emotion in question. In other words, legitimacy was the predictor variable with the specific discrete emotion treated as the criterion variable. In regards to anger, it was not found to be correlated with the independent variable, $t(132) = -1.087, p = .280, \beta = -.11$. Similarly, pride was not found to be related to legitimacy, $t(132) = .82, p = .42, \beta = .08$. However, it was found to be related to power, $t(132) = 3.37, p = .001, \beta = .32$.

**Step 3: Discrete emotions should predict confrontation rates.** Step 3 tested to see if each specific discrete emotion was correlated with confrontation rates, controlling for legitimacy. In this step, the particular discrete emotion was the predictor variable with confrontation rates being the criterion variable. Anger was indeed found to be positively related to the dependent variables, $t(132) = 5.97, p < .001, \beta = .52$. Additionally, pride was found to be negatively correlated with confrontation rates, $t(132) = -6.04, p < .001, \beta = -.55$.

**Step 4: Legitimacy’s effect on confrontation rates should be mediated by discrete emotions.** Finally, for Step 4, I controlled for the particular discrete emotion used for the test (i.e., either pride or anger) before rerunning a regression test of condition’s effect on amount of confrontation (legitimacy being the predictor variable and
confrontation rates being the criterion variable). In regards to anger, the legitimacy effect was not significant, $t(132) = -1.46, p = .146, \beta = -.13$ (see Figure 2). Additionally, when controlling for pride, legitimacy’s effect on confrontations was also not significant, $t(132) = -1.63, p = .106, \beta = -.14$ (see Figure 3). A Sobel’s test for each emotion was found to be not significant (anger: $Z = -1.06, p = .29$; pride: $Z = -.80, p = .42$).

**Discrete emotions bootstrapping.** For each emotion (anger and pride), I conducted another bootstrapping analysis again using $n = 5000$ bootstrap resamples (Preacher & Hayes, 2008). Once again, I controlled for power and leadership scores and used legitimacy as the independent variable, an aggregate of the three dependent measures as the dependent variable and each discrete emotion as the possible mediator. Anger had a weight of -.10 ($SD = 1.16$) and pride had a weight of -.08 ($SD = 1.16$). Both sets of 95% confidence intervals included zero for the discrete emotions (anger: $LLCI = -.32, ULCI = .08$; pride: $LLCI = -.28, ULCI = .11$). Because zero was included in the confidence intervals, the indirect effects were not significant at the .05 level.
Chapter Nine

Study 1 Discussion

Study 1 tested Hypotheses 1 & 2 as well as several proposed mediators. Unlike the Pilot Study, I did not find evidence supporting Hypothesis 1 regarding powerful participants being more likely to confront. The main effect for power in Study 1 was not significant. Importantly, the manipulation check for power suggests there may have been some confusion on this manipulation. There was a tendency for illegitimate powerless individuals to incorrectly indicate that they were the manager of the partnership.

I also did not find complete support for the two parts of Hypothesis 2. The interaction between power and legitimacy was not significant. Even so, I looked at condition means to gain a better understanding of what was going on with the data. Hypothesis 2a predicted that legitimately powerful participants would be highly likely to confront. Looking at the condition means, these individuals had a tendency to have higher confrontation rates than legitimately powerless participants but they did not confront more than either illegitimate power or illegitimate powerless participants.

Additionally, I predicted in Hypothesis 2b that illegitimately powerless individuals would have high confrontation rates. While they were not more likely to confront than the illegitimately powerful, they did have a tendency to have higher confrontation rates than participants under legitimate conditions (regardless of power level). However, analysis of these means should be approached cautiously as the interaction term was not significant.

Interestingly, I did find a marginally significant main effect for legitimacy with illegitimate participants being much more likely to confront than legitimate participants. When the dependent variables were log transformed, this main effect became significant.
Additionally, univariate tests of the three dependent variables revealed that the legitimacy main effect was in the same direction as the composite tests for each of the variables. There seemed to be a tendency for illegitimately powerful individuals to be the most likely to confront (more so than even illegitimately powerless individuals). This is in contrast to my prior prediction that illegitimately powerless participants may have been especially likely to confront, in comparison with people from other conditions. Also, unlike the power manipulation check, the legitimacy one suggested that participants were able to accurately recognize their condition (even though powerless participants found the decision to be less fair than powerful participants).

Because I did find a marginally significant main effect for legitimacy, I conducted the proposed mediational analyses using this condition as the independent variable and controlling for power condition. Perceived control does appear to offer full mediation of legitimacy on confrontation rates. Steps 1-3 of a Baron and Kenny-style (1986) analysis were significant whereas the effect of legitimacy on the dependent variables was no longer significant once perceived control was controlled for. This mediation was also supported by bootstrapping analyses and a Sobel’s test that was marginally significant. Mediation using the discrete emotions of pride and anger did not work as originally proposed. Both anger and pride were not related to the independent variable and bootstrapping also failed to support their potential use in mediation. However, both mood states were related to the dependent variable. In summary, it seems that whether participants confronted in Study 1 was influenced by the legitimacy manipulation and the effect of this manipulation was due to changes in perceived control but not due to changes in discrete emotions.
Chapter Ten

Study 2 Methods

The goal of Study 2 was to explore other situational variables that could impact the Power x Legitimacy relationship. Study 2 tested Hypothesis 3, which suggested that enhanced legitimacy awareness will increase the likelihood that illegitimate powerless participants will confront. Enhancing participants’ awareness of the concept of legitimacy before they dealt with their own instance of unfairness was predicted to lead to an increased amount of confrontation. This effect was predicted to be stronger for the powerless as they would be the most likely to confront (based on the results of Study 1).

Participants and Design

104 female undergraduates (mean age = 18.87, SD = 1.04) were recruited through the Introduction to Psychology participant pool and received course credit for their involvement in the study. Three participants refused to be video-taped during the study and were therefore excluded from the analyses. Study 2 used a 2 (legitimacy: legitimate or illegitimate) x 2 (legitimacy awareness: awareness or control) design. Power was kept constant for this study. Because targets of prejudice are often in positions of powerlessness rather than in power, all of the participants in this study were assigned to be powerless to better test the specific hypothesis I had.

Procedure

Study 2 additions. Participants individually arrived to experimental sessions which involved group decision-making tasks with a biased partner. The design was similar to the one used in the previous studies. However, a few changes were made to the procedure of Study 2.
Confederate actor. First, this study utilized a live actor in the role of the
confederate. Doing so was intended to add ecological validity to the design. Several male
research assistants were given scripted information to say during the course of their
interaction with the actual participant. Two confederates (both White) were used to
increase the amount of research appointments available per week. Only one confederate
was present at each experimental session. These confederates underwent extensive
training to ensure that they performed the scripted information realistically. Some of this
training with the confederates was conducted simultaneously in order for each research
assistant to see how the other confederate was presenting himself. This process was
intended to assist the confederates in acting out their roles as similarly as possible. I have
successful conducted similar confederate-based studies in the past (e.g., Rasinski, 2009).
When participants arrived to the study, they were informed by the experimenter that they
would be waiting for one more person before beginning the study’s tasks. The
confederate arrived to the experimental room a few minutes after the study session had
began to make it less obvious that he was directly involved in the study.

Legitimacy awareness manipulation. Another departure from the design of Study
1 was the inclusion of an additional manipulation: the participants’ awareness of
legitimacy. After finding in Study 1 that individuals in illegitimate power situations are
more likely to confront acts of bias, it is valuable to uncover additional moderating
situational variables. Therefore, in Study 2, I attempted to further examine this effect by
altering participants’ awareness of the concept of legitimacy. In order to prime varying
levels of legitimacy awareness, participants (and the confederate) were told after arriving
to the experiment room and completing the informed consent that they would be reading
several articles as part of a “separate study”. The participants were told that the experimenter, as a favor to another person in the department, had additional materials for participants to complete before beginning the actual study (see Appendix I for the experimenter script). This favor involved current participants reading over materials that were written by participants in a previous study. These passages were supposedly based on the former participants’ personal opinions following a prompt to write about something they value. After reading over these passages, participants were informed that they should circle any grammatical errors they find and that they would be completing this task individually (the confederate pretending to complete his own) before beginning the actual study, which involved group tasks.

In actuality, the proof-reading task contained one of the manipulations for the study – legitimacy awareness. There were a total of two small handwritten passages for participants to read over. The first passage was the same for all participants and was a filler item used to disguise the purpose of the second passage. This passage supposedly detailed another student’s opinions on recycling (see Appendix J). The second passage differed depending on the legitimacy awareness condition participants have been assigned to – legitimacy awareness or a control condition that did not deal with issues pertaining to legitimacy. In the legitimacy awareness condition, participants read about a non-traditional student who returned to college after difficulties at her previous company. She discussed how she felt she was unfairly passed over for promotions due to her gender, offering evidence for this opinion (see Appendix K). However, in the control condition, this same non-traditional student merely described her mundane, day-to-day
routine on the job, filling out paperwork and managing Excel databases of company records (see Appendix L).

**Legitimacy manipulation.** Once this “separate task” had been completed, the experimenter began giving instructions for the “actual study”, which involved how effectively people can work in groups with someone they have just met. The participant and confederate were informed that they would be partners for several group tasks. Before beginning these tasks, they would need to complete a survey that would help determine the positions each of them would hold—manager or subordinate. Participants again completed the Leadership Questionnaire (in paper form) to determine their placement in the group task. The male confederate pretended to be completing this survey at the same time. After both finished, they handed their surveys to the experimenter. The experimenter then went to a corner of the room to supposedly score the surveys, making random marks on the participant’s survey, such as check marks and X’s through item numbers, to give the appearance of scoring. The confederate was trained to focus his attention on study materials during this time to avoid making conversation with the participant while they are waiting on the experimenter’s completion.

The score participants received on the Leadership Questionnaire was predetermined based on condition. The experimenter handed back the scored surveys to the dyad announcing the positions that each received. She also passed out folders with “manager” and “subordinate” to each person (i.e., the confederate always in the end received the “manager” folder and the participant the “subordinate” one) that had information pertinent to their assigned role as well as the materials needed for the group tasks. The top page in this folder was a handout with a description of the role they were
assigned (containing the description previously presented on the computer in the Pilot Study and Study 1). The experimenter then told the dyad to take a minute to read over the information before starting the group interaction portion of the study.

Similar to Study 1, I manipulated whether participants’ position of power was due to illegitimate or legitimate reasons. In the illegitimate condition, the confederate loudly announced upon receiving his position “But, I don’t want this role. I want to be switched to the manager instead”. The experimenter agreed to this switch. “That is fine. [To participant] We will have you be the subordinate instead.” In other words, sometimes Ryan received the subordinate position based on his survey answers but would ask to be the manager instead, leaving the participant in the position of subordinate (illegitimate powerlessness). In other experimental sessions, Ryan was assigned to be the manager based on his survey answers and would not make this side comment about switching roles. Instead, they continued immediately to the next portion of the study (legitimate powerless).

**Deserted Island Task.** After the Leadership Questionnaire, participants completed the Biographical Questionnaire out loud with their partner as well as the Deserted Island Task (see Appendix M for associated handout). The confederate intentionally chose only males on the list for his first five choices. These choices were taken from scripted information (see Appendix N). A bank of possible selections was created for the confederate to choose from to accommodate the participant’s selections. For instance, if the participant chose the historian before the confederate was able to, he would no longer be able to use this as a possible selection and would need to pick another candidate from the list. During the course of the interaction, the confederate made a total
of three sexist comments, alternating between neutral filler selections and biased ones. The experimenter exited the room at the beginning of the task, observing the interaction through a two-way mirror. This enabled the experimenter to make detailed notes of the participant’s responses to the confederate, both verbal and nonverbal, without intruding in on the interaction. Additionally, at this time, the experimenter began a video recording of the interaction to be used in later behavioral coding (see Measures).

Following the group interaction, the participant and confederate completed a survey that contained the self-reported dependent measures. The experimenter ensured that the two were positioned in the room such that the participant did not feel that the confederate could see any of her answers and also so that she could not see what the confederate was doing. Instead of completing the survey, the confederate wrote his own notes regarding how the participant responded to his comments during the interaction task.

Upon the survey’s completion, the experimenter announced that the final portion of the study was to ask each person individual questions about the group interaction. In reality, the experimenter administered a funnel debrief (see Appendix E) to participants to probe for suspicion. The experimenter said that she would be delivering the questions to the participant first and to the confederate second. She also asked the confederate to wait out in the hallway until he was called back in. Once the debrief questions were completed, the experimenter retrieved the confederate from the hallway. Rather than asking him the debrief questions, the experimenter at this time revealed to the participant the true nature of the study, explaining the other participant’s role as confederate, and answering any questions she may have had.
Measures

**Leadership Questionnaire.** Once again, participants completed Lewin at al.’s (1939) 18-item leadership style questionnaire in the beginning of the study. Not only was this survey used as a bogus power placement measure, it was also included as a covariate in the analyses to control for participants’ dispositional leadership characteristics. In Study 2, the Leadership Questionnaire was a significant covariate, $F(1,94) = 4.13, p = .045, \eta^2_p = .042$. This variable had a mean of 2.06 ($SD = .26$) with a range of 1.33. The skewness was -.34 ($SE = .25$) and the kurtosis was .003 ($SE = .49$) suggesting this variable approximated a normal distribution.

**Confrontation coding of responses.** Participants’ responses to the confederate’s biased comments were later coded by three independent raters using the coding system previously described in Study 1. These codings were based on the video recordings made during the group interaction with notes from both the experimenter and the confederate used to clarify any oddities that may have occurred. Once again, coders rated participants’ responses utilizing Study 1’s questions regarding how confrontational they were. The mean for this coding variable was 2.15 ($SD = .48$) with a range of 2.83. The skewness was 1.82 ($SE = .25$) indicating a positively skewed distribution. The kurtosis was 4.73 ($SE = .49$) indicating a leptokurtic distribution.

**Affective coding of qualitative responses.** Coders also rated how affective participants' responses were using the same question discussed in Study 1. The mean for this coding variable was 2.96 ($SD = .38$) with a range of 2.44. The skewness was -.75 ($SE = .25$) suggesting a slightly negatively skewed distribution whereas the kurtosis was 2.92 ($SE = .48$) suggesting a leptokurtic distribution.
**Eye roll coding of physical responses.** An additional question was added to this study to accommodate any nonverbal behaviors that may have occurred during the biased comments. Coders were also asked “Did the participant roll her eyes?” (1 = no, 2 = yes). Swim and Hyers (1999) have considered this non-verbal action as a conservative type of confrontation. The mean for this variable was 1.10 (SD = .16) with a range of .67. The skewness was 1.97 (SE = .24) suggesting a positively skewed distribution. Regarding the kurtosis, its value was 3.73 (SE = .48) suggesting a leptokurtic distribution.

**Legitimacy awareness manipulation check items.** In the brief survey after the interaction task, participants were asked to rate their thoughts on the passages that they read earlier in the study (i.e., the legitimacy awareness manipulation). Participants were asked to recall the passage about the non-traditional student and her description of the company she worked for. After being given this prompt, they were asked to evaluate their feelings regarding her company. These questions were on a 7-point Likert scale (1 = not at all to 7 = very much). Participants were asked “How sexist were the company’s policies” and “Did her place of employment discriminate in their promotions?” along with a few filler items. These two items had a mean of 3.14 (SD = .98) with a range of 3.5. Their skewness and kurtosis was -.71 (SE = .24) and -.77 (SE = .47) respectively.

**Legitimacy manipulation check items.** To make sure that participants correctly noticed the fairness of their condition’s power assignment, they were asked to recall why they were assigned their position for the group task. Specifically, they were asked, “Earlier in the study, you were given a specific position for the group tasks. Why did the roles for the decision-making task get assigned the way they were?” (1 = “based on survey answers”, 2 = “they were switched during the study” or 3 = “randomly chosen”).
49 participants indicated the first response, 52 participants indicated the second response and 3 participants indicated with the third response. Additionally, participants' perceptions of fairness was tested by asking them “Did you feel that the leadership decision was fair?” on a 7-point Likert Scale (1 = not at all, 7 = very much). This scale had a mean of 4.29 (SD = 2.02) with a range of 6. Its skewness and kurtosis were -.13 (SE = .24) and -1.08 (SE = .47) respectively.
Chapter Eleven

Study 2 Results

Manipulation Check Items

Legitimacy awareness manipulation check. The legitimacy awareness manipulation check items were first averaged together ($\alpha = .72$). Afterwards, they were submitted to a two-way ANOVA (treated as the dependent variable) with legitimacy awareness and legitimacy as the independent variables. There was a main effect for legitimacy awareness such that individuals in the legitimacy awareness condition ($M = 3.74$, $SD = 1.21$) rated the company from earlier stimulus material as being more unfair than control participants ($M = 2.58$, $SD = 1.21$), $F(1, 97) = 54.72, p < .001$ (see Table 2 for additional means). On the other hand, both the main effect for legitimacy as well as the interaction effect were not significant, $ps > .51$.

Legitimacy manipulation checks. Similarly, the item assessing reasons for the role assignment was entered into a Legitimacy x Legitimacy Awareness ANOVA with the manipulation check item being treated as the dependent variable. There was a significant main effect for legitimacy such that illegitimate participants were more likely to indicate that their position was switched during the course of the study ($M = 1.82$, $SD = .60$) than legitimate participants ($M = 1.22$, $SD = .60$), $F(1, 97) = 56.60, p < .001$ (see Table 2 for additional means). However, the main effect for legitimacy awareness as well as the interaction between the two independent variables were not significant, $ps > .35$.

I also tested participants’ perceptions of the fairness of the positions with a Legitimacy x Legitimacy Awareness two-way ANOVA. There was a significant main effect for legitimacy such that legitimate participants ($M = 5.00$, $SD = 2.66$) found the decision to be fairer than illegitimate participants ($M = 3.57$, $SD = 2.66$), $F(1,103) =$
14.67, \( p < .001 \). Both the main effect for legitimacy awareness, \( F(1,103) = 0.94, p = .35 \), and the Legitimacy x Legitimacy Awareness interaction, \( F(1,103) = 0.31, p = .58 \), were not significant.

**Tests of Hypotheses 2b and 3**

**Composite coding variables.** The three coded variables (confrontation, affect, and eyeroll) were combined in a similar manner to Study 1. For each variable, I first combined a coder’s ratings for a given participant across the three time periods. After each participant had an aggregated score for a given coder, I then aggregated the three coders’ ratings for each participant. These grand aggregated scores were z-scored so that the measures would be placed on a similar scale to each other. Once again, affect ratings were reverse coded such that higher scores on the dependent variables would translate into increased levels of confrontation. Codings had an acceptable inter-judge reliability (confrontation coding: \( \alpha = .83 \); affect coding \( \alpha = .76 \), eyeroll coding \( \alpha = .64 \)). The dependent measures were also correlated with each other (confrontation & affect: \( r = .71, p < .001 \); confrontation & eyeroll: \( r = .47, p < .001 \); affect & eyeroll: \( r = .43, p < .001 \)). I looked at histograms, boxplots and frequency distributions of the study's dependent variables. Two individuals were found to be outliers on all three of the main dependent measures. Taking them out of the data did not significantly change the findings\(^5\) and as such they were included in the main analyses.

**Within-subjects effects.** The three dependent variables were entered into a two-factor repeated measures ANOVA with legitimacy and legitimacy awareness being the independent variables and Lewin’s democratic leadership scale again used as a covariate\(^6\). Each of the independent variables contained two levels: legitimacy (legitimate
or illegitimate) and legitimacy awareness (control or legitimacy awareness). Unlike Study 1, Study 2 did not manipulate power – all participants were powerless. I first looked at the within-subjects effects to see if the dependent variables were responding similarly to each other. Results indicate that they were – both the two main effects as well as the interaction effect were not significant, $ps > .35$. Between-subjects effects were then looked at to test the predicted hypotheses. For a complete listing of raw means and standard deviations for each dependent measure by condition, please refer to Table 2.

**Hypothesis 2b.** To test the hypothesis that illegitimate powerless participants are especially likely to confront, I looked at the main effect for legitimacy. This main effect was indeed significant, $F(1,94) = 7.54, p = .007, \eta^2_p = .074$, with individuals under illegitimate conditions being more likely to confront ($M = .21, SD = 1.11$) than those in legitimate conditions ($M = -.22, SD = 1.11$). This is similar to Study 1, which found a marginally significant main effect for legitimacy of power.

**Hypothesis 3.** Hypothesis 3 predicted that illegitimate powerless participants who have legitimacy awareness would be the most likely group to confront. To test this hypothesis, I first looked at the main effect for legitimacy awareness. This effect was not significant, $F(1,94) = 2.05, p = .16, \eta^2_p = .021$. Even though it was not significant, it appears that legitimacy awareness participants had a slight tendency to be less likely to confront ($M = -.12, SD = 1.11$) than control participants ($M = .11, SD = 1.11$). I also looked at the interaction between legitimacy and legitimacy awareness. This interaction was not significant, $F(1,94) = .03, p = .88, \eta^2_p < .001$. To further examine the hypothesis, I looked at the means based on condition (please see Table 2). Illegitimate/legitimacy awareness participants ($M = .11, SD = 1.63$) did not have higher rates of confrontation
than illegitimate/control participants ($M = .31, SD = 1.56$). However, there was a tendency for illegitimate/legitimacy awareness individuals to be higher than both legitimate/control ($M = -.10, SD = .159$) and legitimate/legitimacy awareness participants ($M = -.35, SD = 1.63$).

**Log Transformation of Variables.**

Because of the issues with skewness and kurtosis in the three dependent measures, I again log transformed the three coded variables (confrontation, affect, and eyeroll) and entered them into another two-factor repeated measures ANOVA. Legitimacy and legitimacy awareness were the two independent measures with the leadership scale included as a covariate. None of the within-subjects effects reached significance, $p_s > .42$. Looking at the between-subjects effects, legitimacy was a significant main effect, $F(1,94) = 7.06, p = .009$. Illegitimate participants confronted more ($M = .20, SD = 1.12$) than legitimate participants ($M = -.21, SD = 1.13$). The awareness main effect, $F(1,94) = 1.67, p = .20$, and the Legitimacy X Legitimacy Awareness interaction, $F(1,94) = .23, p = .64$, were not significant.

**Univariate Tests.**

**Confrontation coding variable.** In addition to the main analyses, I once again performed univariate ANOVA tests of each dependent variable. Looking at the confrontation coding variable, the legitimacy main effect was not significant but was in the same direction as the composite variable analyses, $F(1,94) = 2.89, p = .09$. Illegitimate participants tended to confront more ($M = 2.23, SD = .70$) than legitimate participants ($M = 2.07, SD = .70$). Both the awareness main effect and the Legitimacy x Legitimacy Awareness interactions were not significant, $p_s > .38$. 
**Affect coding variable.** Upon entering the affect variable into an ANOVA as the lone dependent variable, I found legitimacy to be a significant main effect, $F(1,94) = 5.51, p = .02$. Illegitimate participants responded more negatively to their partner ($M = 3.10, SD = .52$) than legitimate participants ($M = 2.94, SD = .52$). The main effect for awareness approached conventional levels of significance, $F(1,94) = 3.81, p = .054$. Those without awareness ($M = 3.11, SD = .51$) reacted more negatively to the sexism than those who were given legitimacy awareness ($M = 2.96, SD = .53$). The interaction between legitimacy and legitimacy salience however was not significant, $F(1,94) = .002, p = .96$.

**Eye roll variable.** Looking at the eye roll variable as its own dependent measure, I once again found a main effect for legitimacy, $F(1,94) = 7.21, p = .01$. Illegitimate participants were more likely to roll their eyes at their partner ($M = 1.14, SD = .21$) than their legitimate counterparts ($M = 1.06, SD = .02$). Both the main effect of awareness and the Legitimacy x Legitimacy Awareness interaction were not significant, $ps > .49$. 
Chapter Twelve

Study 2 Discussion

Study 2 utilized two independent variables – legitimacy of power (a carryover from Study 1) as well as legitimacy awareness. Manipulation check items for both of these variables suggest that participants did accurately recognize which condition they were in. This study tested two hypotheses. The first was a retest of Hypothesis 2b, which predicted that illegitimate powerless participants would be especially likely to confront. Because this study did not involve a power manipulation, it allowed for testing the difference between illegitimately and legitimately powerless individuals only. This result was indeed significant (in both the initial composite variable test as well as the log transformation test), suggesting that people are more likely to confront under illegitimate power structures. Additionally, univariate tests revealed that the legitimacy main effect responded similarly in each of the three dependent variables as they did in the main composite analyses.

Conversely, Hypothesis 3 (i.e., illegitimate/legitimacy awareness participants having the highest confrontation rates) was not supported. Both the main effect for legitimacy awareness and the Legitimacy x Legitimacy Awareness interaction were not significant. If anything, there was a trend in the opposite direction for participants to be less likely to confront under legitimacy awareness conditions.
Chapter Thirteen

General Discussion

Background of Current Research

The goal of the present studies was to explore possible situational factors that could increase confrontation behavior – in particular power and legitimacy. Previous research suggests that most people do not confront prejudice despite wanting to do so (Swim & Hyers, 1999; Woodzicka & LaFrance, 2001). This may be due to the social costs of confronting such as impression management concerns (Shelton & Stewart, 2004). However, confronting could be a useful tool for targets of prejudice. Confrontations can reduce a perpetrator’s future bias (Czopp et al., 2006) and not confronting could lead to issues for targets committed to activism such as obsessively ruminating about the situation and feeling guilty (Shelton et al, 2006) as well as rationalization of the act of bias (Rasinski, 2009).

I theorized that an individual’s level of power and the legitimacy of said power could possibly effect whether or not someone confronts an act of bias. Previous work on power suggests that holding legitimate power (or even being illegitimately powerless) could lead people to take action and to strive towards goals (Galinski et al., 2003; Keltner et al., 2003; Lammers et al., 2008; Willis et al., 2010). This work sought to test whether another type of action – confrontations of prejudice – could also be impacted by these variables.

Hypotheses

To explore the idea that power and legitimacy could impact confrontation likelihood, I tested several hypotheses in a set of two studies. Study 1 tested Hypotheses
1 and 2 whereas Study 2 retested Hypothesis 2b in addition to the inclusion of Hypothesis 3.

**Hypothesis 1.** For Hypothesis 1, I predicted that people with higher levels of power would be more likely to confront than those who were powerless. According to this hypothesis, powerful individuals may feel that they have less to lose socially from confronting due to the control they have over the situation.

**Hypothesis 2.** Hypothesis 2 (divided into two parts) predicted an interaction between power and legitimacy of power. Hypothesis 2a stated that individuals holding legitimate power should be especially likely to confront. Illegitimate leaders may be concerned that they could easily lose this position because it was not fairly earned. Therefore, the illegitimately powerful may be less willing to speak out because this action could jeopardize their control. Additionally, Hypothesis 2b stated that illegitimately powerless individuals should also be likely to confront. This prediction stemmed from legitimacy of power work (e.g., Lammers et al., 2008) which suggests that the illegitimately powerless are also likely to act. This would be especially applicable to the field of prejudice research because many minority members are unfairly placed in lower status positions in the workplace.

**Hypothesis 3.** Finally, I also predicted that cues in the environment could strengthen the predicted legitimacy effects. In the real world, targets of prejudice are often relegated to positions of illegitimate powerlessness and yet not everyone confronts. Therefore, there may be an additional situational factor that could increase likelihood of confrontation. I hypothesized that illegitimately powerless individuals would be even more likely to act if they were given increased awareness of issues of fairness (i.e.,
dubbed legitimacy awareness for this research) before being exposed to a biased confederate. If unfair circumstances could provoke one to act, added awareness of the illegitimacy could further motivate action.

**Mediators.** Another intention of the present research was to find possible mediators of the predicted effects. Two such mediators that I wanted to test were perceived control and discrete emotions (i.e., anger and pride). Perceived control is a mediator found in other power research (e.g., Fast et al., 2009). Having low perceived control from placement in an unfair situation may motivate illegitimate participants to regain control by asserting themselves and confronting a biased perpetrator. On the other hand, discrete emotions were predicted to also lead one to act. Feelings of pride from receiving a position of power could create feelings of responsibility for the group partnership, leading the participant to want to point out her partner’s bias (Smith & Ellsworth, 1985). Additionally, feelings of anger from being placed in an unfair situation may motivate these participants to confront because of the approach-based orientation of this emotion (Lerner & Keltner, 2000). Both of these possible mediators were explored in Study 1.

**Research Findings**

**Study 1.** The first study utilized an “online interaction” paradigm in which participants thought that they were engaging in a computer-based group task with a biased partner. This study manipulated power through participants’ assigned role in the study and legitimacy of power by whether this role was given to them for fair (i.e., legitimate) or unfair (i.e., illegitimate) reasons. I included manipulation check items for both independent variables. Results from the legitimacy manipulation check item
suggested that participants correctly understood whether they were placed in their group position because of their survey answers (i.e., legitimate participants) or because the positions were switched during the study by the experimenter (i.e., illegitimate participants). However, regardless of legitimacy condition, powerful participants were more likely to feel that the decision was fair than powerless participants. In contrast, the power manipulation check item suggested some confusion regarding whether the participant was the manager or the subordinate. Powerful participants correctly understood their role, regardless of legitimacy condition. However, there was a tendency for illegitimately powerless participants to erroneously say that they were the manager whereas legitimately powerless participants did not seem to make the same error.

**Hypotheses.** Study 1 allowed me to test two different hypotheses pertaining to the possible role of power dynamics in confrontation behavior – Hypotheses 1 and 2. In regards to Hypothesis 1, unlike the Pilot Study, the main effect for power in Study 1 was not significant. Additionally, results of the study failed to fully support either part of Hypothesis 2. The interaction between power and legitimacy failed to reach significance. Even though the original predictions were not found, there was a marginally significant main effect for legitimacy of power. Regardless of power condition, those whose power positions were due to illegitimate reasons were more likely to confront than those who received them for legitimate ones.

**Mediation results.** Because the interaction term was not significant, I decided to test my proposed mechanisms using the marginally significant legitimacy main effect as my independent variable. First of all, I ran analyses using perceived control as the potential mediator of legitimacy’s effect on confrontation likelihood. For this measure, I
found full mediation using Baron and Kenny’s (1986) approach and a Sobel’s test was marginally significant. Additionally, bootstrapping analyses suggested that the indirect effect for perceived control was significant. These results suggest that perceived control can be viewed as a mediator of legitimacy of power’s effect on confrontation rates. In contrast, neither one of the discrete emotions (anger or emotions) was a significant mediator in any of the approaches used – Baron and Kenny’s (1986), Sobel tests, or bootstrapping. However, it should be noted that pride was significantly related to power condition in the mediational tests conducted.

**Study 2.** The second study also manipulated legitimacy of power while utilizing an in-person confederate group partner. Unlike Study 1, all participants in this study were placed in situations in which they were powerless. However, these participants did differ on whether or not this powerless position was due to legitimate or illegitimate reasons. In addition, a new independent variable was added to the study’s design – legitimacy awareness. This variable was intended to make experimental participants more receptive to inequalities in work environments before the group interaction task in hopes that this awareness would stimulate these participants in becoming more likely to confront than control participants. Both the legitimacy and legitimacy awareness manipulation check items indicated that participants could accurately recall which condition they were placed in. Additionally, as was expected, legitimacy participants were more likely than illegitimacy participants to feel that the decision was made fairly. Awareness conditions did not impact this feeling of fairness in any way.

**Hypotheses.** Study 2 tested both Hypothesis 2b and Hypothesis 3. First, regarding the retesting of Hypothesis 2b, I once again found a main effect for legitimacy of power
such that those under illegitimate conditions were more likely to confront than those under legitimate ones. This finding thus grants some support for this hypothesis. In contrast, Hypothesis 3 (which states that illegitimate powerless/legitimacy awareness participants would be the most likely to confront) was not supported. Neither the legitimacy awareness main effect nor the interaction term were significant in this study.

**Summary of Results**

**Power.** In summary, this set of studies could not offer support for Hypotheses 1 and 2b. At least in the current research, power was not found to have an impact on whether or not someone confronts an act of bias. As discussed more in detail later, there are a few different possibilities for the lack of a power main effect in Study 1. One possibility could be that the marginally significant results of the Pilot Study were in fact due to chance (i.e., a Type 1 error) and therefore this false effect could not be replicated in Study 1. Other possible explanations include some quality of this particular sample of participants causing the power manipulation to have less of an impact in the current research or one of the additions to Study 1 (such as the legitimacy effect) masking the true power effect (i.e., a Type 2 error). Future research is needed to determine which of these possibilities offers a better explanation.

**Legitimacy.** Hypothesis 2b (illegitimate powerless participants would be likely to confront) had some support. In Study 2, which did not manipulate power, illegitimate powerless participants had a tendency to be more likely to confront than legitimate powerless participants. However, Study 1 suggests that it might be more the case that legitimacy by itself leads to increased confrontation rates. In this study, the interaction between power and legitimacy was not significant but the main effect for legitimacy was
marginally significant such that illegitimate participants were more likely to confront than legitimate ones. Another thing to consider is that the legitimacy manipulation check item in both studies suggested that this manipulation was carried out successfully. This could be due to the effect my hypotheses suggest (i.e., legitimacy impacts confrontations) or it could be that the manipulation primed the concept of fairness, which in turn led participants to act. Additional research is needed to further explore the possibility that being in any type of unfair position, whether it leads one to be in power or without it, can motivate people to confront.

**Mediators.** This set of studies also found a mediator for the effect of legitimacy on confrontation rates – perceived control. Illegitimate participants (who were the most likely to confront) felt low perceived control. Experiencing low amounts of perceived control led to increased confrontation rates. In turn, low perceived control mediated the effect of legitimacy on confrontation likelihood. There was evidence for this through three different means – Baron and Kenny’s (1986) mediation approach, a Sobel’s test, and bootstrapping. On the other hand, the other potential mechanism that I tested, discrete emotions, does not appear to mediate the effect at all.

**Legitimacy awareness.** Finally, the additional independent variable tested out in Study 2 with Hypothesis 3, legitimacy awareness, does not seem to impact confrontation rates as was predicted. As discussed later, there could be a few different reasons for this including a ceiling effect for legitimacy’s impact on confrontations such that it cannot be increased higher than it already is or that this manipulation unintentionally primed participants to be silent.
Confrontation Literature

Legitimacy of power. Although my hypotheses involving power and legitimacy awareness did not reach significance, I did find a social variable that can increase confrontation likelihood – legitimacy of power. Previous studies have shown that situational factors such as social costs may lead someone to not confront prejudice (Shelton & Stewart, 2004). The current studies explored a new situational dynamic that could increase confrontations – legitimacy. Across two studies, participants placed in unfair (illegitimate) power structures were more likely to confront than those who were given their positions for fair reasons. It seems as if the fairness of power distributions has more of an impact on people’s decisions to confront than what those positions are (i.e., whether they are manager or subordinate). Even those who were illegitimately powerful had a tendency to have higher rates of confrontation than those who were legitimately powerful (and even more so than the illegitimately powerless). This was despite my prediction that illegitimately powerful individuals would be more likely to remain silent to avoid shaking their tenuous hold over their power. Some aspect of being in an unfair circumstance, whether beneficial or not, seems to remind people of the inappropriateness of prejudice. Thus, it leads them to be more likely to point out the biases in perpetrators’ actions.

Perceived control mediation. Additionally, I also found a variable which mediates this legitimacy of power effect – perceived control. Perceived control was positively correlated with legitimacy such that illegitimate participants felt they had less control over their situation than legitimate participants. Lower feelings of control in turn led to higher rates of confrontation. Therefore, it seems as if a potential explanation
regarding why someone would be more likely to confront in illegitimate circumstances than legitimate ones is a desire to regain control. Whether the individual is in a position of power or not, being placed in that role unfairly leads the individual to feel uncertain about the amount of control they have. This uncertainty could possibly be even stronger for individuals in illegitimate power positions because they have even more to lose than those in illegitimate powerlessness positions and therefore they would be strongly motivated to protect it. In turn, feeling a lack of control over their situation may lead individuals to confront more in an attempt to regain control. Other research on power has found perceived control to be a significant mediator of their effects (e.g., Fast et al., 2009). This set of studies illustrates that this mediator can also be connected to situations involving confrontations of prejudice, thus expanding both the prejudice and power literatures. Future research could determine whether other aspects of stereotyping and prejudice, such as personal stereotype suppression (e.g., Monteith, 1993), are also impacted by the amount of control an individual feels over his or her circumstances.

**Discrete emotions.** As previously mentioned, discrete emotions were not found to mediate the effect of legitimacy on confrontation likelihood. However, these variables were found to be related to confrontation rates (i.e., the dependent variable but not the independent variable). In the process of testing for mediation, I found that anger was positively related to the dependent variable whereas pride was negatively related to it. While not central to this project’s set of hypotheses, these findings do contribute to the literature on confrontations of prejudice and discrete emotions (showing another application for this concept). The findings suggest that the emotional state of an individual may impact whether or not he or she chooses to confront prejudice. For
instance, angry people seem to be more likely to do so than those who are not angry. Also, having lower feelings of pride seems to boost people’s motivation to confront (maybe in an attempt to bolster feelings of pride, similar to the explanation suggested for perceived control). Future research should examine whether manipulating an individual’s emotional states (rather than simply measuring them, as was done in Study 1) could impact one’s rate of confrontations.

**Power Literature**

**Legitimacy of power.** This set of studies also adds to the literature on power, specifically in regards to legitimacy of power. Previous power studies have found that legitimacy of power can have effects on behaviors such as risk-taking and price negotiation (Lammers et al., 2008) as well as goal creation and persistence (Willis et al., 2010). The current research further expands our knowledge of what type of behaviors legitimacy of power may impact. My findings suggest that legitimacy of power may also be applicable to the domain of prejudice, specifically in regards to confrontation likelihood. Both studies presented here found higher rates of confrontation in illegitimate circumstances. Further research should explore whether there are other facets of stereotyping and prejudice that illegitimacy can impact. For instance, perhaps illegitimate power circumstances could also serve to motivate targets of prejudice to enter into domains that they are stereotypically expected to perform poorly in.

**Power.** Whereas the effects of legitimacy of power were more clear and consistent, the impact of power was not. Study 1 failed to find a main effect of power or a significant interaction between power and legitimacy of power. However, power did have a marginally significant effect on confrontation rates in the Pilot Study that utilized a
similar paradigm. This raises the question of how exactly does power relate to confrontations of prejudice? Does it indeed play a role in confrontation processes and some aspect of Study 1’s design did not allow for it to be detected or were the Pilot Study’s results found by chance and power has no actual effect on this behavior?

**Design issue?** One possible explanation is that the power manipulation was not executed as successfully in Study 1. As previously noted, the manipulation check item that did not work out was the one that tested whether or not participants correctly noted their power condition. Logistic regression analyses indicated that illegitimate participants had increased odds of indicating that they were the manager. Looking at the means for each group, legitimate and illegitimate power participants had identical means to each other. Both groups were likely to correctly indicate that they were the manager. The difference seemed to occur with the powerless participants. Compared to the mean of legitimate powerless participants, the mean on this response for illegitimate powerless participants was closer to the response of manager. One possible explanation is that participants were confused by the term “subordinate” that was used for their role in Study 1 (unlike the Pilot Study which used the term “worker” instead). This seems unlikely because legitimate powerless individuals were not confused by their role. It could have also been the case that switching roles in the study created confusion for participants on which position they were supposed to be (i.e., they maintained the position that was mentioned in their survey results and did not update their position cognitively after the experimenter told them to do so). This also seems unlikely because illegitimate power participants did not make the same error.
Motivational issue? The tendency for increased errors on the manipulation check item for illegitimate powerless participants suggests that design issues were not the case. Perhaps the inclusion of the legitimacy of power manipulation in Study 1 motivated participants in the illegitimate powerless condition to want to regain control of their situation because they were unfairly removed from the higher position that they earned. This altered their perceptions regarding who they thought was in control (i.e., “I am not officially in the manager position anymore but I’m going to take charge anyways!”). It does not seem to be the case that participants were simply having a hard time recognizing their position because illegitimate power participants were just as likely as legitimate power participants to select that they were manager.

Giving further support for this idea is the perceptions of power manipulation check item. Participants who were legitimately given the powerless position based on their survey answers were just as likely as the illegitimately powerless to find the decision to be unfair. This suggests that at least some participants may have had an unrealistic assessment of their leadership abilities and believed that they should have received the power position. The analysis of this same question in Study 2 revealed no effects on people's perceptions due to legitimacy awareness. Egoist beliefs on the part of the powerless may have motivated them to initially expect to receive the power position and when it was later taken away in the illegitimacy condition, participants may have tried to socially maintain the position they "deserved".

The uncertainty with the effects of power suggests that future studies should be conducted to further explore the possible interaction between power and legitimacy of power. Perhaps if legitimacy is manipulated in another way or additional reminders are
given about the position switch, participants will be more likely to correctly note their assigned position. Or items could be added to investigate whether or not participants do correctly recognize the position switch but do not want to relinquish control of their power when changed for illegitimate reasons.

**Recency effect?** An additional explanation for why the legitimacy manipulation reached significance and the power manipulation did not could be the ordering of these measures. In the Pilot Study, participants were only exposed to the power manipulation whereas in Study 1, they were presented with the power manipulation first, followed by the legitimacy manipulation. The work of Ebbinghaus (1913) has suggested that the ordering of stimuli can impact one’s memory. Relating to the issue at hand, the stimuli presentation may have created a recency effect for participants. Recency effects involve people having a better recollection of events that occur more recently in time than those that occur earlier. With the legitimacy manipulation occurring last in this situation, participants may have been thinking more on the issue of fairness than their power placement, thereby strengthening the effect of legitimacy. This could explain why the power manipulation was significant in the Pilot Study (which did not include legitimacy) but was not in Study 1. Future research could alter the ordering of these two conditions to see if it has any impact on the strength of the power manipulation.

**No actual effect?** On the other hand, if the lack of power effects had more to do with power having no actual impact on confrontations in our environment (rather than being an artifact of how the manipulation was treated), this could yield information for power researchers. Assuming that it does have no impact on confrontations, this knowledge could further narrow the situations in which power does (and does not) shape
the way in which we behave. While there is bias against publishing null results both by journal editors and researchers themselves (Rosenthal, 1979), knowing what does not work can also give us valuable insight into processes. Much of the research on power and action has explored the effects of non-interpersonal behaviors such as hitting in a game of Blackjack or choosing to power down an annoying fan (Galinsky et al., 2003). It could be the case that power is more likely to affect our actions involving inanimate objects than interpersonal behaviors such as confronting. The social costs of confronting (e.g., Shelton & Stewart, 2004) could be strong enough to make even people in positions of power question whether or not they should engage in the behavior. Even though they are in a position of authority, employers may still want to maintain the status quo with their employees and to not start arguments about matters outside of job performance.

**Mediation.** Additionally, Study 1 illustrated an instance where perceived control mediates legitimacy of power’s impact on actions. Previous studies (e.g., Godin et al., 2004; Fast et al., 2009) have found this variable to mediate power’s effects on dependent measures. Study 1 helps to broaden the scope of this mediator to legitimacy of power as well as extend its impact to another type of behavior – confrontations of prejudice. On the other hand, it is difficult to tell from this one study if discrete emotions were not a successful mediator because of the particular type of situation involved (confrontations) or if discrete emotions do not mediate power effects at all. Additional research could help answer this question.

**Legitimacy awareness.** Study 2 also tested whether being able to more readily notice the inequality of power structures in one’s environment could increase the likelihood of confronting an act of prejudice (i.e., termed “legitimacy awareness” for this
study). Similar to power, I was not able to find a main effect for legitimacy awareness nor did it significantly interact with legitimacy of power. If anything, there appeared to be a non-significant trend in the opposite direction such that individuals in the control condition who were without this awareness were more likely to confront than those with it. The manipulation check item for this independent variable indicated that participants could accurate recall whether or not their passage discussed sexism. Therefore, the null results may have been caused by how participants interpreted this information rather than them not noticing the manipulation.

There are a few different possible explanations for the null effects with this variable. First, they could be due to some aspect of how this variable was manipulated in the study. Perhaps the legitimacy awareness passage primed participants to be silent in situations where an act of bias takes place. The woman described in the passage seemed to passively accept her powerless position while she was still employed by the company. Or maybe it was more a matter of her not being relatable to this study’s participants. She was described as being an older adult with children and the participants tended to be young adult college students. Still other possibilities have to do with how legitimate power works in the real world. It may be the case that legitimacy effects are so strong that they cannot be moved much higher with the inclusion of this additional variable (i.e., a ceiling effect). Unfortunately, the current study does not allow us to fully answer this question.

Limitations and Future Directions

Sample generalizability. Two issues with the sample may limit these studies' generalizability - age and culture.
**Age.** One limitation to the generalizability of the current set of studies is that the sample is comprised of undergraduate students who tend to fall within the ages of 18-22. Acts of prejudice are a wide-spread issue. As such, people of all ages, such as high school students, middle-aged individuals in the workforce and even senior citizens in retirement homes, may be exposed to derogatory actions against one of their social groups. It is possible that different age groups will handle this dilemma in different ways. High school students may be especially susceptible to social cost concerns due to the elevated impression management concerns that exist for this age group. Because of peer pressure, they may be even less likely to confront.

On the other hand, older adults may be less concerned about the social costs and have a more firmly cemented feminist identity (Downing & Roush, 1985) which may cause them to be more bothered by acts of bias than their younger counterparts (or less bothered if their cohort tends to agree with the stereotypes directed towards their social group). Additionally, as Sears (1986) discusses, one of the problems researchers have with using a college sample is that this population has less crystalized attitudes than older adults. Because of this, they may be more likely to agree with the confederate’s biased comments, which in turn may lead them to be less likely to confront than older populations of people.

**Culture.** Furthermore, the discussion provided by Henrich, Heine, and Norenzayan (2010) would suggest that this concern for generalizability may be even more widespread than just age - the current research may be only applicable to American society. Their article discusses how the majority of psychologists today utilize a WEIRD (Western, educated, industrialized, rich and democratic) sample even though compared to
people from the rest of the world, this type of participant may be atypical in his or her responses. As such, individuals in other countries (China, Mexico, even England) could respond differently to confrontations of prejudice.

Perhaps some cultures would not be as affected by legitimacy of power as this American sample was. For instance, it is possible that because of Western cultures’ values on independence, people from these countries would be more likely to engage in confrontation than those of Eastern cultures. Westerners may be more concerned with voicing their concerns than they are with maintaining harmony with their peers. Not only may Westerners be more likely to confront, their confrontations may be better received than they would be in interdependent cultures. Western cultures are more accustomed to people making statements of their personal opinions. Furthermore, American society places emphasis on political correctness, enhancing the likelihood of a confrontation’s success. Even if confronted people in America are high in prejudice, they may still be motivated to inhibit biased responding because of external motivation to appear unprejudiced to others (Plant & Devine, 1998).

On the other hand, people from Eastern cultures who wish to change prejudice may find other strategies more beneficial than confronting. These individuals may be inclined to not confront a powerful person, such as a boss, out of deference for his or her position, regardless of whether their powerlessness was due to fair or unfair reasons. Furthermore, because of the emphasis placed on interdependence, those in Eastern cultures may find the use of confrontations to be especially problematic. Even though people can respond negatively to their confronter in Western cultures (e.g., Czopp, 2006), confrontations may have even more negative costs in Asia. It is likely that a confronter
would be concerned quite rude in Eastern cultures. Behaving in this manner would seem quite jarring and against social norms. In these cultures, prejudice reduction may be better received if it is implemented more subtly or at a global level. One person speaking his or her opinion about discrimination may not be well-received but a group norm inhibiting bias could be more persuasive. People may be more receptive to multiple individuals shaping their opinions on stigmatized social groups (because of the emphasis on personal relationships) or to programs instituted by their workplace that redefine in-groups to including targets of prejudice. Other researchers could explore these two possibilities (i.e., age and culture differences) by attempting a cross-sectional or cross-cultural confrontation study in the future.

Moderators. Other researchers should also explore moderating variables that would help us understand when these legitimacy effects are more likely to take place. One such moderator could be an individual's commitment to activism. The results of the current studies most likely would not be applicable to people of certain belief systems. Power dynamics would likely have no effect on the confrontation likelihood of individuals who agree with society’s stereotypes or who hold little value for activism. If someone agrees with these types of sentiments, she will not speak out against them because there is no disagreement to be had between her and the perpetrator. On the other hand, legitimacy of power is likely to impact those who do find the sentiments to be offensive. Previous research (Rasinski et al., 2013) has found that the importance participants place on confrontations is a significant moderator of perceptions of a biased confederate (i.e., those high on this measure were more affected by the manipulation). Similarly, activism beliefs could potentially affect people’s likelihood to confront in an
illegitimate power context. Other researchers should explore this and the possibility of other moderators’ (such as age, ethnicity, and family socioeconomic background).

**Applicability to other domains.** Another issue that is in need of empirical testing is whether or not the current results generalize to other domains. These studies specifically looked at how women respond to sexism in a power context. One possibility for future research is to explore sex differences. For instance, egalitarian men may react similarly to the women who participated in these studies. This group of individuals would also be likely to find gender stereotyping offensive even if it was not directed towards their personal social group. As such, they could also be motivated to confront the perpetrator in the right set of circumstances. Likewise, in a different context, men may also be the target of gender stereotyping themselves (e.g., hearing comments devaluing sensitive men or those highly invested in raising their children) and could also engage in the same processes as the targeted women did in these studies.

Additionally, the results of these studies should generalize to other prejudicial domains such as racism, homophobia, ageism, and religious intolerance. Even though these other stereotypes cover different topics and types of individuals, they can operate in similar ways given that humans are prone to creating distinctions between people, even under minimal group situations (e.g., (Tajfel, 1970).

While investigating the range of prejudices these legitimacy effects cover, other researchers should also explore the possibility that other mediators could exist. Even though there are overlaps in how we process stereotypes, there can be some differences as well. For example, people are more likely to take sexism less seriously than racism, finding such comments to be more laughable (Czopp & Monteith, 2003). Although
perceived control should be an applicable mediator to other prejudice domains given its connection to power effects more generally (e.g., Fast et al., 2009), the differences could lead to additional mediators, such as how humorous the biased statements are regarded.

**Applicability to real-life situations.** Finally, future research should investigate whether or not these effects can be replicated outside of a laboratory setting. It is possible that these studies have low ecological validity and people would not act in a similar manner with their friends, loved ones, and colleagues. For instance, people may feel less of an urge to confront someone they feel is joking, an authoritarian individual who may be impossible to change because of his or her staunch beliefs, or someone for whom it is necessary to impress. Attempts were made in these studies’ designs to increase ecological validity by putting participants in a setting where they were directly interacting with another individual – both face-to-face and online (an important setting to consider with the growing use of technology). Their sexist partner was also a peer who was said to be taking psychology as well, making it possible for the participant to encounter this individual on campus at a later date. Therefore, it is likely that at least some of the thought processes that would be normally used in deciding whether or not confront would have also been used in this research setting.

Important facets to consider with real-world confrontations are the strength of the relationships involved and the costs of confronting. It would be important for a target of prejudice to maintain a working relationship with a co-worker or boss whom she sees every day. As such, it may be more difficult to confront in this type of situation rather than if the perpetrator was someone you just met in a psychology study whom you may not see again. On the other hand, confronting someone you know personally may be
It may be awkward to confront a stranger because you do not know this person well enough to judge how he will respond. In contrast, if you know the individual intimately, you would know how to tailor your confrontation and be able to soften your words so as to limit any hurt feelings. Additionally, the perpetrator may be more willing to listen to what you have to say and change his behaviors so as to avoid damaging your relationship with him.

Also, it may be more important for us to confront those we interact with frequently than it would be to confront a stranger because doing so could lead to more meaningful benefits. By confronting someone you see on a routine basis, you would experience the prejudice reduction benefits yourself. However, when the individual is a stranger, the costs of confronting may be greater than the reward of behavioral change in someone you will not interact with again, making it not worth the risk. Additional research in an employment setting could add to this theory and would allow us to explore whether the effects found here would be strengthened or reduced in everyday prejudice encounters committed by someone we know.
Chapter Fourteen

Conclusion

Targets of prejudice are placed in a challenging situation. If the individual does not confront, biases towards her social grouping may persist and she will continue to experience offensive remarks and actions. In other words, being silent could not only impact the individual target, who may continue to experience discrimination, but also have implications at a societal level. When one does not confront a prejudicial situation, the perpetrator may take the individual’s silence to be acceptance, leading the perpetrator to continue to act in a biased manner to other members of the target’s social category. This may be especially problematic if the perpetrator in question holds power over others or has influence over the status quo. However, if the target does confront, social costs, such as backlash from the perpetrator and observers, could occur.

This research suggests that there are some social situations that might motivate people to be more likely to confront prejudice, such as when power placements at work are made for illegitimate reasons (whether it be a promotion they did not deserve or being passed up for a promotion that they earned). The legitimacy of power effect found in these studies could have implications for not only places of employment but also social clubs and organizations with a structural hierarchy or possibly even household environments in which someone feels that they are being unfairly kept from making important decisions such as money management. The motivation for being more likely to confront in this type of situation seems to be the amount of control people perceive themselves as having. Being unfairly placed in a power position leads these individuals to desire to regain control. One way in which they can do this is taking control of the biased
situation and letting the perpetrator know that someone found his or her actions to be unacceptable. In turn, this may be a mechanism for the unfairly disadvantaged to influence society’s opinions of their minority status.
References


Footnotes

1 Because numerous participants incorrectly answered the power manipulation check item, I also ran analyses to investigate whether individuals who incorrectly answered this item responded differently to the dependent measures than individuals who answered correctly. To do so, I split the data file into groups based on whether or not participants correctly answered the manipulation check. Then I ran the critical analyses for each group. There were no significant effects for those who were incorrect in stating their roles—power main effect: $F(1,6) = 1.70, p = .24$; legitimacy main effect: $F(1,6) = 1.94, p = .21$; interaction: $F(1,6) = 0.45, p = .53$. On the other hand, the analysis for individuals who did correctly indicate their roles closer resembled the critical analyses power main effect—$F(1,118) = 1.03, p = .31$; legitimacy main effect: $F(1,118) = 2.86, p = .09$; interaction: $F(1,118) = 0.45, p = .50$.

2 In Study 1, I also conducted tests of the hypotheses without using the Lewin leadership scale as a covariate. These results look similar to the analyses reported in the results section that included it as a covariate. Within-subjects effects were once again not significant, $ps > .19$. Looking at between-subjects effects, there was still a trend for a legitimacy main effect, $F(1,130) = 3.00, p = .08$. However, both the main effect for power and the interaction term were not significant, $ps > .33$.

3 In addition to the primary analyses of Study 1, I also tested to see if Luhtanen and Crocker’s (1992) collective self-esteem scale (CSES) could be used as a moderator for any effects. CSES can be seen as a social identity scale. I hypothesized that women who have a higher feminist identity (i.e., a higher score on this scale) may be more likely
to confront prejudice. Their commitment to their social group may lead them to be more likely to defend it when someone makes a sexist comment.

The CSES is a 16-item scale using 7-point Likert items (1 = strongly disagree, 7 = strongly agree). This scale measures the positivity that one feels towards their social group with higher scores indicating higher positivity. The scale asks such questions as “I am a worthy member of the social groups I belong to”, “The social groups I belong to are an important reflection of who I am” and “Overall, my social groups are considered good by others”. I reverse coded specific items, averaged the scale together (α = .86) and created a z-score of the aggregated measure.

First, I entered the CSES as an additional covariate to Study 1’s analyses. I ran an additional Two-Factor Repeated Measures ANOVA with legitimacy and power being the independent variables, leadership scores and CSES as covariates and the three confrontation variables (quantitative confrontation ratings, qualitative confrontation ratings, and affect ratings) as the dependent measure. There were no significant within-subjects effects (ps > .28) indicating that the three variables were moving similarly and could be used together. Looking at between-subjects effects, the legitimacy main effect was not as strong as it was in the main analyses, $F(1,96) = 3.21, p = .08$. Similar to the main analyses, the power main effect was not significant, $F(1,96) = .03, p = .87$. Additionally, the interaction was once again not significant, $F(1,96) = .001, p = .97$.

I also ran a hierarchical regression analysis. Rather than performing a median split (which loses some use of the data), regression allows us to see how people high versus low on a continuous personality trait differ in terms of the dependent variable. The three dependent variables used in the main analysis (quantitative confrontation as well as
codings for affect and confrontation) were averaged together and used as the main dependent variable. A zscore of CSES was treated as a continuous predictor variable whereas the condition variables, power and legitimacy, were dummy coded (0 = powerless, 1 = power; 0 = illegitimate, 1 = legitimate). On the first step, I entered in CSES, legitimacy, power, and the covariate that was used in main analyses – leadership scores. On the second step, I entered in two-way interactions between CSES, legitimacy, and power. Finally, on the third step, I entered in the three-way interaction term.

There was not a main effect for CSES, $t(100) = .46, p = .65, \beta = .05$, indicating that differing levels of the continuous predictor variable did not have an impact on confrontation likelihood. On the second step of the regression, the CSES x Legitimacy interaction term was not significant, $F(1,100) = .78, p = .70, \beta = .07$. However, the CSES x Power interaction term was significant, $F(1,100) = 4.00, p = .048, \beta = -.26$. This interaction indicates that participants with low scores on the CSES who were in the power condition were the most likely to confront. Finally, the CSES x Legitimacy x Power interaction was not significant, $F(1,100) = 3.01, p = .14, \beta = .33$. In summary, the CSES does not seem to have an impact on the dependent variable by itself, like previously predicted. However counterintuitively, having low amounts of CSES does seem to lead powerful participants to confront to greater degrees than those high on the measure. Perhaps for those low on this measure who also have access to additional resources (i.e., powerful), they are more likely to confront because they do not feel the social costs of confronting as strongly as someone who is high on this measure may feel.

\[4\] I also conducted the analyses including the leadership questionnaire as an additional independent variable (rather than a covariate) and created interaction terms...
between it and the other two variables—power and legitimacy. The main effect for the leadership scale, $F(1, 129) = 0.72, p = .67$, $\eta^2_p = .052$, and legitimacy, $F(1,129) = 0.05, p = .82$, $\eta^2_p = .001$, was not significant. In contrast to the main analyses, power was significant, $F(1,129) = 6.59, p = .01$, $\eta^2_p = .059$. Looking at the two-way interactions, Power x Legitimacy, $F(1,129) = 0.18, p = .67$, $\eta^2_p = .002$, and Legitimacy x Leadership Scale, $F(1,129) = 0.97, p = .45$, $\eta^2_p = .052$, were not significant. However, the Power x Leadership Scale interaction was significant, $F(1,129) = 2.48, p = .04$, $\eta^2_p = .105$. Finally, the three-way interaction was not significant, $F(1,129) = 0.94, p = .46$, $\eta^2_p = .042$.

I ran analyses excluding the two individuals who were found to be outliers in the three main dependent measures. These results were similar to the findings reported in the results section. The legitimacy main effect was still significant, $F(1,92) = 5.70, p = .02$. The awareness main effect, $F(1,92) = .55, p = .46$ and the Legitimacy x Legitimacy Awareness interaction, $F(1,92) = 1.53, p = .22$, were not significant.

I also tested the predicted hypotheses for Study 2 without using the leadership scale as a covariate. Results were similar to the ones that did control for this variable. Once again the legitimacy main effect was significant, $F(1,95) = 7.61, p = .007$. However, both the legitimacy awareness main effect, $F(1,95) = 1.93, p = .17$, and the interaction effect, $F(1,95) = .07, p = .79$, were not significant.

Similar to Footnote 4, I also tested whether the Collective Self-Esteem Scale (CSES, Luhtanen & Crocker, 1992) could be a potential moderator for effects in Study 2. Once again, I reverse-scored the CSES items that required it, averaged the items together and then z-scored the scale before performing analyses.
First, I performed another Two-Factor Repeated Measures ANOVA using CSES as a covariate along with leadership scores. Legitimacy and legitimacy awareness were the two independent variables with confrontation, affect, and eye roll ratings included as dependent measures. Within-subjects effects were not significant, $ps > .36$, indicating that these three dependent measures could be used together in analyses. Looking at between-subjects effects, there was once again a significant main effect for legitimacy, $F(1,93) = 7.60, p = .01$. This effect is similar to the one found in main analyses (i.e., $F(1,94) = 7.54, p = .01$). However, the legitimacy awareness main effect was not significant, $F(1,93) = 1.85, p = .18$, nor was the Legitimacy X Legitimacy Awareness interaction, $F(1,93) = .02, p = .89$.

CSES was also entered into a hierarchical regression as a continuous predictor variable with the two conditions, legitimacy and legitimacy awareness, dummy-coded ($0 = $ legitimate, $1 = $ illegitimate; $0 = $ control, $1 = $ legitimacy awareness). Main effects were entered into the first step along with Lewin’s democratic leadership score, two-way interactions were entered into the second step, and the three-way interaction was entered into the third step.

On the first step, the main effect for CSES was not significant, $t(100) = .37, p = .71, \beta = .04$. On the second step, neither the CSES x Legitimacy interaction, $F(1,100) = .17, p = .93, \beta = -.01$, nor the CSES x Legitimacy Awareness interaction, $F(1,100) = 2.74, p = .17, \beta = .19$, were significant. Finally, the CSES x Legitimacy x Awareness interaction was also not significant, $F(1,100) = 2.73, p = .18, \beta = .32$. In summary, CSES seems to have no effect on legitimacy of power or legitimacy awareness. Because this...
study did not include a power condition, I was not able to replicate the CSES x Power finding presented in Footnote 2.

Once again, for Study 2, I also ran analyses including the Leadership Questionnaire as an additional independent variable, rather than as a covariate. The main effect of legitimacy was not significant, $F(1,94) = 0.44, p = .51, \eta_p^2 = .006$. In contrast, the main effects for both the Leadership Questionnaire, $F(1,94) = 2.51, p = .02, \eta_p^2 = .241$, and legitimacy salience, $F(1,94) = 9.93, p < .01, \eta_p^2 = .123$, were significant.

Looking at the two way interactions, Legitimacy x Leadership Questionnaire, $F(1,94) = 0.66, p = .68, \eta_p^2 = .053$, and Legitimacy x Legitimacy Salience, $F(1,94) = 2.71, p = .10, \eta_p^2 = .037$, were not significant. However, the Legitimacy Salience x Leadership Questionnaire interaction was significant, $F(1,94) = 3.20, p = .01, \eta_p^2 = .213$. Finally, the three-way interaction was not significant, $F(1,94) = 0.53, p = .67, \eta_p^2 = .022$. 
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Table 1: Dependent measures in Study 1 as a function of power and legitimacy.
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Table 2: Dependent measures in Study 2 as a function of legitimacy and legitimacy awareness.
Figure 1: Mediational results for perceived control in Study 1.
Figure 2: Mediational results for anger in Study 1.
Figure 3: Mediational results for pride in Study 1.
Appendix A

Experimenter Script, Pilot Study

Examining Group Dynamics
Experimenter Script

Abbreviations:
E = Experimenter
P = Participant

Before the start of the session, E should start up MediaLab prior to P’s arrival (i.e., enter subject and condition number found on run sheet) so that ChatBox window is showing then turn the monitor off. Additionally, E will need to gather materials for the session. Each participant will receive a copy of the consent form and “Deserted Island”. E will hang on to copies of “Contact Information” and “Debrief.” Make sure the speakers are turned on.

Greet participants in the research waiting room and then walk them down to room 6504: Hello, are you here for Examining Group Dynamics? And you name is ____? Hi, my name is ____ and I’ll be conducting the study. Please follow me into the lab so that we can get started. If you have a cell phone, please turn it off.

Once in the lab room, ask the participant to complete an informed consent:

The first thing I need you to do is complete this consent form. It gives you some information about the study and briefly describes what you’ll be doing. After you read it over, please sign your name and date on the bottom of the form. After you have finished reading over the consent form, we also have this survey here [point out] that we would like you to complete.

After P has completed the consent form, E will informally say: We’re waiting on one more participant before we get started. I’m going to go down the hall and see if he is here and then get them started on filling out the consent form. Just hang out here for a few minutes. I’ll be right back.

Walk down the hall and wait a minute. Then return to P and say:

The name of this study is Examining Group Dynamics. The purpose of this study is to investigate group decision-making processes. Working effectively in a group is a key component to success in many industries. Therefore, we want to study how efficiently people work in group situations and the impressions they form of their group members during this process. For this study, we are specifically looking at how successful group
interactions can be via a computer as opposed to in person. With the growing use of technology, people frequently have to conduct business with individuals they have never met before, sometimes even in other countries. For this study, you will be making decisions with a participant down the hall through a chat program we have created. The chat program will keep your interaction on topic by offering instructions.

I should let you know that the interaction that takes place between you and Ryan down the hall will be recorded. At the moment, this conversation will just be between you and him. However, what you type will be recorded. A panel of psychologists will later be reviewing a transcript of what you said to see how well you interacted with this other student as well as your ability to stay on task.

Start up program and enter “User Name” and “Password”, both of them being “User 2”

The first thing we need to do is to take a picture of you. Many instant messenger programs use an avatar or an icon that allows other users to see a picture of the person they are talking to. This picture will give each partner a chance to see who they are working with even though you are in separate rooms. If I could just have you stand up for a second so I can take your picture. [Take picture] Thanks.

Now we need to make sure that the chat program is working. I’d like you to type in the word “blue” into the box you see there. I’m going to check on Ryan again and see if it came through on his computer. I’ll be asking him to type in the word “red” so you should see that appear on your computer if the program is working correctly. E will informally say: I’m going to get him started with the task and give him the same instructions I just gave you so I’ll be back in a few minutes.

Go down the hall for a minute and then return to P.

Alright, I’m going to just download Ryan’s picture onto your computer and then we can get started with the main task. [Click “continue” on the screen and hook up the camera to the cord for “downloading”] Okay, this is Ryan from down the hall.

Together with your partner, you will be completing several group tasks over the computer. Before you get started with those, you will first be completing our Leadership Questionnaire on the computer. Your responses to this aptitude survey will determine your role in the last group task. You will be either assigned to be the “manager” who will be responsible for taking charge and managing the group or you will be the “worker” who will follow out tasks as directed by the manager.

Once your scores on the Leadership Questionnaire have been determined, the group decision-making tasks will begin. There will be three different group tasks. In the first part of the discussion, you will be exchanging personal information with Ryan so that you can get to know each other. After this, you will be performing a decision-making task with him. For this task, we’ll be asking you to imagine yourselves stranded on a deserted island. [Hands out “Deserted Island” sheet]. You’ll need this sheet when you
reach this task. Together, the two of you will need to come up with a list of 12 people you think would be the most helpful for living on the island out of the list provided. Each of you will be taking turns providing a suggestion for a possible candidate from the list. In your discussion, you may also provide a BRIEF reason for your suggestion and comment on your partner’s suggestions. You are user 2 so you will want to make your choices from the bottom half of this sheet. [draw a star next to their selections & line across page, “User 2”]

The final group task will involve a business simulation. Your roles for this task are determined by the leadership survey you will be completing now. One of you will be the manager who will have complete control over the work process and will supervise the person assigned to be the worker. More information on this task will be given later in the study. When you’re ready to begin, click “continue” at the bottom of your screen.

When P steps out of room and says that she is finished with the surveys, E will go back to the lab room with P and take her through the funnel debrief (read questions and instructions off of “Debrief”).
Appendix B

Leadership Questionnaire

Please read the following statements and rate how well they apply to your personal attitudes and experiences.

1. I have the final say over decisions made within my group.
   
   Most of the time
   
   Absolutely
   
   I let group members make their own decisions

2. I consider suggestions made by others in the group.
   
   Most of the time     Never     Always

3. I tell group members what to do, how to do it, and when I want it done.
   
   Occasionally     All of the time     Rarely

4. If a group member makes a mistake, they are reprimanded or punished.
   
   Absolutely
   
   Almost never. Group members can resolve problems on their own
   
   Rarely. Mistakes are a sign that a new strategy is needed.

5. I carefully watch group members to be sure they are performing tasks properly.
   
   Always
   
   Never. Group members know more about their job than I do.
   
   Somewhat. I offer guidance if it is needed

6. Group members need clear rewards and punishments in order to complete tasks and meet goals.
   
   Somewhat agree. They also need to feel involved and committed to the process
   
   Disagree. Group members should establish their own goals and objectives
   
   Agree
7. Group members are motivated by a need for security.

   No       Somewhat       Yes

8. I accept input from group members.

   Absolutely. I allow group members to guide the decision-making process.
   Yes, but I have the final say over all decisions
   Never. I don’t have the time to worry about other people’s ideas

9. I ask for advice from group members when things go wrong.

   No
   Often. I want input from group members when resolving problems
   Yes, and I let group members resolve problems on their own

10. I want group members to feel involved and relevant in the decision-making process.

    All of the time     Much of the time     Never

11. When there are problems in the group, I work with members to arrive at a reasonable resolution.

    Oftentimes. Group members should offer suggestions
    Never. I will decide how to fix the problem
    Always. Group members should work together to fix the problem

12. I want to help group members fulfill their potential.

    Not really     Occasionally     Absolutely

13. I prefer when decisions are made through group consensus.

    Occasionally     Never     Always
14. Big decisions should have the approval of the majority of the group.

   Always

   Never. Group leaders are in charge of making decisions

   Sometimes. Group members should offer input

15. I let group members decide what needs to be done and how to do it.

   Never   Occasionally   Always

16. I allow group members to carry out their role with little of my input. They know more about their job than I do.

   Disagree   Agree   Neutral

17. I entrust tasks to other group members.

   Never   Most of the time   Often

18. I allow other group members to share my leadership power.

   No   Somewhat   Yes

19. Have you ever had a leadership position in a student organization?  Yes   No

20. Have you ever had a leadership position at your work (i.e., trainer, assistant manager, shift leader)?  Yes   No

21. When you were growing up, did you ever help take care of younger brothers or sisters?  Yes   No

22. Have you ever had a leadership position on a sports team?  Yes   No

23. Do you ever take charge in social situations?

   All the time   Sometimes   Not at all
Appendix C

Computer-based Confederate Script

Biographical Questionnaire:

What is your name?: “hi im ryan”

How old are you?: “19”

What is your year in college?: “im a sophomore”

What are your hobbies?: “music, doinstuf with friends, tv”

Deserted Island Task:

Selection #1 Participant’s choice

Selection #2 Confederate: “that’s a good one. I’ll take the anthropologist. he would know how to deal with natives on the island”

Selection #3 Participant’s choice

Selection #4 Confederate: “sure we can go with that. Ill choose the trainer. We definitely need to keep the women in shape”

Selection #5 Participant’s choice

Selection #6 Confederate: “I didn’t think of that one before but I guess I can see where that would be good. I pick the historian he could record what happens to us or know about situations similar to ours”

Selection #7 Participant’s choice

Selection #8 Confederate: “maybe a chef? No, one of the women can cook. Ill go with the student instead he’s somone we could relate to”

Selection #9 Participant’s choice

Selection #10 Confederate: “I like that. The sales rep would be good with people so ill pick him”
Selection #11 Participant’s choice

Selection #12 Confederate “I’ll choose the photographer. She’s pretty hot. We need more women on island to keep the men satisfied”
Appendix D

Deserted Island Task Sheet (computer version)

Deserted Island

With your partner, please select 12 individuals from this list that you think would be the most equipped to survive with you on a deserted island.

User 1

1. Todd K., sales manager
2. David A., anthropologist
3. Sara M., teacher
4. Andrea S., CEO
5. Katie D., photographer
6. Albert L., mechanic
7. Diana F., nurse
8. Don M., marine
9. Debbie M., pilot
10. Corey E., guide
11. Ellie M., actor
12. Ryan R., botanist
13. Chris M., sculptor
14. Shannon K., computer
15. Steve M., chef
16. Austin E., doctor
17. Amanda B., vet
18. Chris R., police officer
19. Anthony K., musician
20. Haley C., tailor
21. Chad K., writer
22. Rhonda R., lawyer
23. Eric K., trainer
24. Josh M., student
25. Ginger B., psychologist

User 2
Appendix E

Funnel Debrief

**DEBRIEF**
The study is now officially over. After I ask you a few questions, I’m going to tell you a little about the study. You will get credit for the study no matter how you respond and your partner will not be informed of your answers so we appreciate your honest responses. Thanks.

Were all of the directions clear and easy to understand?

NO

YES.

Explain ____________________________________________________________

Did a friend or classmate tell you anything specific about this study?

NO

YES.

Explain __________________________________________________________________________

Was there anything that you think might have influenced your responses in any way?

NO

YES.

Explain

________________________________________________________________________

Do you use instant messenger programs?

NO

YES.
How frequently do you use instant messenger?____________________________________

Was the chat program difficult to use?

NO

YES.

Explain______________________________________________________________

Did you encounter any problems with the chat program?

NO

YES.

Explain______________________________________________________________

The reason why we are asking these questions is because we are still developing this chat program so we’re looking for ways to perfect it.

Did your partner say anything that you disagreed with?

NO

YES.

Explain______________________________________________________________

What do you think is the purpose of this study?

______________________________________________________________

______________________________________________________________

Did your partner say anything unusual?

NO

YES.

Explain______________________________________________________________
Did your conversation with the other participant seem to flow naturally?

NO

YES.

Explain_________________________________________________________________

If suspicions were raised: When did you first begin to suspect something was unusual?
________________________________________________________________________
________________________________________________________________________

Okay, now the experiment is over, I’d like to tell you more about what we’re trying to study. In this experiment, there was actually only one participant. The responses given during this interaction task were actually generated by the computer program. We wanted to see how people behave in situations where someone says something that is considered biased. We also wanted to see how people’s reaction to biased comments could influence their future judgments. Additionally, I should also mention that the results of the Leadership Questionnaire may not reflect your actual abilities on this trait.

We’d like to apologize for this use of deception, and we hope you’ll understand why we needed to do this, and that there are no hard feelings. Since we’ll be doing this research all semester long, we’d like to ask that you do not tell any friends or anyone about the nature of this study and the deception involved until after the end of the semester. Obviously, it’s very important that participants come in not knowing what’s going to happen. Can I count on you not to tell anyone about the nature of this study? Thanks! Do you have any questions?
Appendix F

Experimenter Script, Study 1

Experiemnter Script

Abbreviations

E = Experimenter
P = Participant

Before the start of the session, E should start up MediaLab prior to P’s arrival (i.e., enter subject and condition number found on run sheet) so that ChatBox window is showing then turn the monitor off. Additionally, E will need to gather materials for the session. Each participant will receive a copy of the consent form and “Deserted Island”. E will hang on to copies of “Contact Information” and “Debrief.” Make sure the speakers are turned on.

Greet participants in the research waiting room and then walk them down to room 6510:

Hello, are you here for Examining Group Dynamics? And you name is ____? Hi, my name is ____ and I’ll be conducting the study. Please follow me into the lab so that we can get started. If you have a cell phone or other electronic devices, please turn it off.

Once in the lab room, ask the participant to complete an informed consent:

The first thing I need you to do is complete this consent form. It gives you some information about the study and briefly describes what you’ll be doing. After you read it over, please sign your name and date on the back of the form. After you have finished reading over the consent form, we also have this survey here [point out] that we would like you to complete.

E will informally say: We’re waiting on one more participant before we get started. I’m going to go down the hall and see if he is here and then get them started on filling out the consent form. Just hang out here for a few minutes. I’ll be right back.

Walk down the hall and wait a minute. Then return to P and say:

The name of this study is Examining Group Dynamics. The purpose of this study is to investigate group decision-making processes. Working effectively in a group is a key component to success in many industries. Therefore, we want to study how efficiently people work in group situations and the impressions they form of their group members
during this process. For this study, we are specifically looking at how successful group interactions can be via a computer as opposed to in person. With the growing use of technology, people frequently have to conduct business with individuals they have never met before, sometimes even in other countries. For this study, you will be making decisions with a participant down the hall through a chat program we have created. The chat program will keep your interaction on topic by offering instructions.

I should let you know that the interaction that takes place between you and Ryan down the hall will be recorded. At the moment, this conversation will just be between you and him. However, what you type will be recorded. A panel of psychologists will later be reviewing a transcript of what you said to see how well you interacted with this other student as well as your ability to stay on task.

Start up program and enter “User Name” and “Password”, both of them being “User 2”

The first thing we need to do is to take a picture of you. Many instant messenger programs use an avatar or an icon that allows other users to see a picture of the person they are talking to. This picture will give each partner a chance to see who they are working with even though you are in separate rooms. If I could just have you stand up for a second so I can take your picture. [Take picture] Thanks.

Now we need to make sure that the chat program is working. I’d like you to type in the word “blue” into the box you see there. I’m going to check on Ryan again and see if it came through on his computer. I’ll be asking him to type in the word “red” so you should see that appear on your computer if the program is working correctly. E will informally say: I’m going to get him started with the task and give him the same instructions I just gave you so I’ll be back in a few minutes.

Go down the hall for two minutes and then return to P.

Alright, I’m going to just download Ryan’s picture onto your computer and then we can get started with the main task. [Click “continue” on the screen and hook up the camera to the cord for “downloading”] Okay, this is Ryan from down the hall.

Together with your partner, you will be completing several group tasks over the computer. Before you get started with those, you will first be completing our Leadership Questionnaire on the computer. Your responses to this aptitude survey will determine your role in the last group task. You will either be assigned to be the “manager” who will be responsible for taking charge and managing the group or you will be the “subordinate” who will follow out tasks as directed by the manager. Research shows that those who receive the managerial title tend to have other positive qualities such as intelligence and seem to be well-liked by their peers. Because of the additional work and responsibility the manager has to take on during this study, those who receive this role will be allowed to leave 5 minutes early from the study as compensation.
Once your scores on the Leadership Questionnaire have been determined, the group decision-making tasks will begin. There will be three different group tasks. In the first part of the discussion, you will be exchanging personal information with Ryan so that you can get to know each other. After this, you will be performing a decision-making task with him. For this task, we’ll be asking you to imagine yourselves stranded on a deserted island. [Hands out “Deserted Island” sheet]. You’ll need this sheet when you reach this task. Together, the two of you will need to come up with a list of 12 people you think would be the most helpful for living on the island out of the list provided. Each of you will be taking turns providing a suggestion for a possible candidate from the list. In your discussion, you may also provide a BRIEF reason for your suggestion and comment on your partner’s suggestions. You are user 2 so you will want to make your choices from the bottom half of this sheet. [draw a star next to their selections & line across page, “User 2”]

The final group task will involve a business simulation. Your roles for this task are determined by the leadership survey you will be completing now. One of you will be the manager who will have complete control over the work process and will supervise the person assigned to be the worker. More information on this task will be given later in the study. When you’re ready to begin, click “continue” at the bottom of your screen.

After the Leadership Questionnaire has been completed, experimenter will return to the room and say:

*ILLEGITIMATE CONDITIONS ONLY*: Now is the point in the study where we check in with students about the Leadership Questionnaire. What role were you assigned? [wait for answer]. I already talked to Ryan and he wanted that position so we’re going to let him have it. You’ll be the ____ instead. When you’re ready, click continue at the bottom of your screen.

*LEGITIMATE CONDITIONS ONLY*: Now is the point in the study where we check in with students about the Leadership Questionnaire. What role were you assigned? [wait for answer and then pretend to jot the answer down]. Thanks. When you’re ready, click continue at the bottom of your screen.

When P steps out of room and says that she is finished with the surveys, E will go back to the lab room with P and take her through the funnel debrief (read questions and instructions off of “Debrief”).
Appendix G

Perceived Control Scale, Study 1

Please indicate the extent to which you agree with each of the following statements by selecting the numbers below.

1 2 3 4 5 6 7
Not at all Very much

1. I wished that I had more influence over the group task.
2. I felt responsible for the success of the decision-making task.
3. I needed to feel more in control of what was going on during the group task.
4. I felt a sense of authority/power while working on the group task.
5. I took charge of the decisions in the group task.
6. I felt a need to regain control during the group task.
7. How much control did you have over the quality of your relationship with your partner?
8. How much were the interactions between you and your partner predictable?
9. In general, how much overall control did you have over resolving conflict between you and your partner?
Appendix H

Discrete Emotion Scale, Study 1

Instructions: The DES is a list of words that you can use to show how you feel. Each question asks you about a different feeling. We want you to tell us how often you felt each of these feelings during the task. You can tell us how often you felt each of the following feelings using the following scale:

1. Rarely or never felt
2. Hardly ever felt
3. Sometimes felt
4. Often felt
5. Very often felt

1. Attentive
2. Delighted
3. Surprise
4. Downhearted
5. Enraged
6. Feeling of distaste
7. Contemptuous
8. Scared
9. Sheepish
10. Repentant
11. Concentrating
12. Happy
13. Amazed
14. Sad
15. Angry
16. Disgusted
17. Scornful
18. Fearful
19. Bashful
20. Guilty
21. Alert
22. Joyful
23. Astonished
24. Discouraged
25. Mad
26. Feeling revulsion
27. Disdainful
28. Afraid
29. Shy
30. Blameworthy
Appendix I

Experimenter Script, Study 2

Examining Group Dynamics
Experimenter Script

Abbreviations:
E = Experimenter
P = Participant
C = Confederate

Before the session begins, E will need to gather materials for the session. Each participant will receive a copy of “Survey Results”, “Biographical Questions,” “Deserted Island” and “End Survey” in her folder. Make sure the same materials are still in the confederate’s folder and are clean (i.e., previous answers erased). E should also hang on to copies of “Leadership Questionnaire”, “Debrief”, “Evaluation of Participant”, and “Stranded Island Responses”. As P & C arrive, make sure P is listed on the Participant Sign Up sheet (attached to clipboard) and ask arrivals to complete an informed consent form.

The first thing I need you to do is complete this consent form. It gives you some information about the study and briefly describes what you’ll be doing. After you read it over, please sign your name and date on the bottom of the form. As you will notice on this form, we will be videotaping a part of this study session. Please write your initials in the box in the middle of the page if you agree for us to do so.

After P and C have completed the consent form, E will informally say:

Before we get started with the main study, I was wondering if you both could complete a small task as part of a separate study? The group activity we have planned for today doesn’t take the full time so a colleague of mine in the department asked me if I could hand out some materials for her study.

Confederate says “sure”. After participant assents as well, E will retrieve two packets from a stack located in the room marked “Personal Opinions Study” and hand one to both P & C.

Thanks! I’m just going to read some directions she gave me before you begin. The following materials you will see were written by participants such as yourself. They were asked to write their opinions regarding their attitudes towards a topic or an event they experienced. I would like you to read these passages over and circle any grammatical errors you may find.
E will informally say: *While you two work on these materials, I’m going to finish setting things up for the group interaction task. I’ll be right back.*

At this point, E can set up the webcam in the two-way mirror room. The C will at this time be looking over the materials, pretending to complete them as well. When they both have finished, E will return to the room, carrying two folder marked “manager” (C’s folder) and “subordinate” (P’s folder).

E sits down and reads:

*The name of this study is Examining Group Dynamics. The purpose of this study is to investigate group decision-making processes. Many students dislike doing group projects in their classes but working effectively in a group is a key component to success in many industries. Therefore, we want to study how efficiently people work in group situations and the impressions they form of their group members during this process. We hope that research on this topic can assist the university with implementing more valuable group projects into course curriculums. In this study, the two of you will be partners for several group tasks.*

*Before you get started with those, you will first be completing our Leadership Questionnaire. [hands out survey]. Your responses to this aptitude survey will determine your role in the [last group task] which will involve a business simulation. Your roles for this task are determined by the leadership survey you will be completing now. One of you will be the manager who will have complete control over the work process and will supervise the person assigned to be the subordinate. Please take a few minutes to complete this survey. When you are done, I’ll score both of your surveys, let you know what role you will be assigned and then we can begin with the main tasks.*

P & C will complete the survey. When they are both completed, E will say:

*I’ll take those from you now. Thanks. I’m going to score your surveys. It should only take a few minutes and then we’ll get started with the interaction tasks.*

E will go to a corner of the lab room and “score” the surveys, making marks along the way. C will fiddle with materials and not make small talk with the participant. When E is done scoring, she will hand folders out to P & C.

**Legitimate condition only:** E will hand manager folder to C and subordinate folder to P. She will then say “[to participant] ___ your score determined you would be the subordinate today and [to confederate] Ryan, your score determined that you would be the manager”

**Illegitimate condition only:** E will start to hand subordinate folder to C and manager folder to P. She will then say “to [to participant] ___ your score determined you would be the manager today and [to confederate] Ryan, your score determined that you would
be the subordinate” to which C will reply “I don’t want to be the subordinate. I want to be the manager instead” E: “That’s fine”. [hands manager folder to C and subordinate folder to P]

The first page of your folder gives you more information about the role you have been assigned. Please read it over and then we’ll get started. Gives them a minute.

For the first task, please open your folders to the form labeled “Biographical Questions.” Research has shown that people are able to work more effectively together when they know each other on a personal level. You’ll see that on this sheet we’ve provided a list of questions regarding your personal lives. What we would like you to do now is to take turns sharing your answers to these questions out loud with your partner so that you can get to know each other a bit before completing a group task. Okay, how about you start? Points at confederate.

Wait for P and C to complete this task. When they are done, E states:

Okay, now we would like you to perform the first group decision-making task. What we would like you to do now is to imagine yourselves stranded on a deserted island. Your survival depends on the cooperative efforts between you and the other individuals also stranded the island. Please open your folders once again to the page labeled “Deserted Island.” Here you’ll see a list of 30 individuals and their occupations. For this group task, you and your partner will discuss which of these individuals you think would be most suited to survive on the deserted island with you. Together, the two of you will need to come up with a list of 12 people you think would be the most helpful for living on the island out of the list of people that you have been provided. Each of you should take turns providing a suggestion for a possible candidate from the list. In your discussion, you may also provide reasons for your suggestion and comment on your partner’s suggestions. I will give you both some time to discuss your selections. Please remember to not only state your selection but a brief reason for your choice. How about you start the discussion this time? Points at participant. I will be in the next room while you complete this task. Please wait for me to tell you over our intercom system when you can begin as I will be timing how long you have to complete this task.

At this point, E goes into two-way mirror room, turns on video recording and tells the dyad “You can now begin making your selections. She also completes “Stranded Island Responses”, making notes about participant’s behavior.

Alright, time’s up. We are now finished with the group interaction task. We now like you to fill out a few survey questions. If you could look in your folders for the packet labeled “End Survey” at the top. This packet includes several different questionnaires. The instructions for these surveys change throughout the packet so please read the instructions carefully. Your responses will be completely confidential. Your partner will not see your information so be as honest and open as possible. After you’re finished with the packet, close your folder and remain seated. When you both have completed the packet, I will give you some more information about the study. Before we start can I have
you (point to person nearest table) move to this table over here so that you both have some privacy?

E remains in the room while C & P complete the packet. C will finish with the packet shortly after P has completed hers.

Okay, now I have a few questions to ask both of you individually. Let’s see, I’ll ask you (points at participant) the questions first. As for you (points at confederate) if you could follow me down the hall. I’m going to have you sit in a nearby room while I ask her some questions first. Then when we’re done, I’ll call you back in and ask you the same questions. To participant: Please remain seated. I’ll be right back.

C will be directed to a separate room and given a copy of “Evaluation of Participant.” E will go back to lab room and take P through the funnel debrief (read questions and instructions off of “Debrief”). When finished, get C from separate room and then state:

Okay, now the experiment is over, I’d like to tell you more about what we’re trying to study. In this experiment, there was actually only one participant. This student is a confederate who is someone that is part of the study and instructed to act a certain way. We wanted to see how people behave in situations where someone says something that could be considered biased. In addition, we wanted to see how people’s reactions to biased comments could influence their future judgments. To do this in a way that’s realistic, we had to see how people respond when interacting with real people. We’d like to apologize for this use of deception, and we hope you’ll understand why we needed to do this and that there are no hard feelings. Since we’ll be doing this research all semester long, we’d like ask that you not tell any friends or anyone else about this study and the deception involved until after the end of the semester. Obviously, it’s very important that participants come in not knowing what’s going to happen. Can I count on you not to tell anyone about the nature of this study? Thanks! Do you have any questions?
Im going to write about my thoughts on recycling. My parents were really big on recycling so I guess I guess I picked up the habit and try to do it too. I’m from Monroe, MI and it’s pretty easy to do it up there. All you have to do is take your cans, bottles, and other stuff to Meijer or another grocery type store, put the stuff in their machines and you got money back right there. It didn’t take that long out of our days. We would just do it when we were heading to the store anyways. The extra money came in handy for our family. Sure, you aren’t going to be able to pay rent with what you get back but I didn’t grow up rich and every little bit counts. I also try to make sure to recycle while I’m on campus. I think a lot of other students don’t realize that there are bins around campus for paper and your pop bottles. Rather than tossing all those class notes you no longer need in the regular trash, the recycling bin is the way to go. I do think UT could stand to make more accessible recycling bins and promote it more though. Maybe more people would do it if it was even easier to do and notice. On some parts of campus, you really have to look to find em. Recycling is pretty easy to do and helps out our environment so I try to do it whenever I can.
Appendix K

Legitimacy Awareness Passage, Study 2

I’m writing about my experiences as a non-traditional student. It’s sometimes weird being in classes with people my son’s age and I don’t seem to be as good with technology as they all seem to be. However, I think going back to school was one of the best decisions I’ve ever made. I used to work in an office. Had my own little cubicle, working 9-5 Monday – Friday. While the work itself wasn’t that bad, I just couldn’t handle my work’s environment. I had been at that company for 15 years. I was never late, rarely missed a day except when sick and always did what I was told. Sometimes, I would even stay late if my boss needed something done in a hurry. Everytime a promotion was coming up, my coworkers would always say that they thought it would be me getting it. Instead, my boss always seemed to give it to some new guy who barely had experience with the company – one or two years max. After being passed up several times, I finally mentioned something to him about it. He informed me that while I had the more than the necessary skills, he didn’t think a woman could handle the stress of a management position. Even though school can be really challenging sometimes, lots of studying and living in a world of a bunch of young people, I don’t regret my decision. It will all be worth it when I am done. Hopefully, I’ll be able to land a job where promotions are not based on discrimination.
Appendix L

Control Passage, Study 2

I’m writing about my experiences as a non-traditional student. It’s sometimes weird being in classes with people my son’s age and I don’t seem to be as good with technology as they all seem to be. However, I think going back to school was one of the best decisions I’ve ever made. I used to work in an office. Had my own little cubicle, working 9-5 Monday – Friday. The pay was nice but I just hated the job. It was a little too monotonous for my tastes. Same thing, a different day. A lot of my life seemed to involve managing databases on Excel for my company, emailing and calling clients, filling out work orders and requisition requests. It seems like the paperwork I had to fill out never ended. I also had to attend plenty of meetings with coworkers, sitting through powerpoint presentations and seminars on different topics which weren’t always relevant to my work. While it wasn’t that bad really, I decided I needed a change of pace and started wanting to change careers. Once my kids were old enough to leave the house for college, I decided to make a break for it and go back to school myself. Even though school can be really challenging sometimes, lots of studying and living in a world of a bunch of young people, I don’t regret my decision. It will all be worth it when I am done. Hopefully, I’ll be able to land a job that is more exciting than the one I came out of.
Appendix M

Deserted Island Sheet, Study 2

Deserted Island

With your partner, please select 12 individuals from this list that you think would be the most equipped to survive with you on a deserted island.

1. Chris D., sales associate
2. David A., anthropologist
3. Sara M., teacher
4. Andrea R., CEO
5. Katie D., photographer
6. Rob L., mechanic
7. Diana F., librarian
8. Chad H., factory worker
9. Joanne R., pilot
10. Corey E., gardener
11. Lydia W., actor
12. Edward H., historian
13. Chris M., cashier
14. Abby M., carpenter
15. Steve M., chef
16. Austin E., dentist
17. Cora W., vet
18. Alexandra H., biologist
19. Josh S., conservationist
20. Penny L., writer
21. Chad K., waiter
22. Rhonda R., lawyer
23. Collin L., artist
24. Tim W., student
25. Ginger B., psychologist
26. Bob C., trainer
27. Anna F., doctor
28. Gabe R., police officer
29. Haley C., tailor
30. Jan Y., professor
Appendix N

Confederate Script, Study 2

Examining Group Dynamics
Confederate Script

Abbreviations
E = Experimenter
P = Participant
C = Confederate

C arrives to lab room about 5 minutes before the scheduled time. If P is already in the room, C will pretend to read over the informed consent form and sign it. Otherwise, C will act as if he has already read and signed the consent form before P arrived. C acts neutrally with P and keeps conversation at a minimum. When asked to complete survey measures, C pretends to fill out the forms along with P.

Biographical Questionnaire script:

What is your major? Okay, for major, I’m in business
What year of college are you in? Alright, I’m a sophomore
How old are you? I’m 19.
How many siblings do you have? I have 3 younger brothers.
What are your hobbies? I listen to music, go out and do stuff with my friends, watch some tv.
Do you live on campus or commute? As for where I live, I have my own place but I go back home a lot

Deserted island task:

C will let P start off giving responses and then the two will take turns listing off people. Throughout the task, C will occasionally make comments to P’s responses like “Oh yeah, that’s a good point,” “That sounds alright,” or “Sure.”

C will start by picking male candidates only and will choose a female for his last selection. He will make a total of 3 neutral comments and 3 biased ones. Which ones he picks will be based off of selections remaining that the participant hasn’t.
Some possible **neutral** selections for C:

- The sales representative since he would be good with working with people.
- The anthropologist, he would know how to deal with any natives on the island. 
- If our plane crashed, the mechanic, he might be able to fix it.
- The factory worker. He can help with any heavy lifting.
- The historian. He could keep a record of what happened.
- The cashier. He should be good with numbers, which might come in handy.
- The dentist, he would help us take care of our teeth.
- The waiter because he would probably get along well with others.
- The musician. He could entertain people.
- The artist. He could entertain people. (**don’t use this one if you’ve chosen the musician and vice versa**) 
- The police officer because he’d keep everyone in line.
- The gardener because he might know what plant life we could eat. (**only if he hasn’t been already used for biased statement #2**) 

**Biased selections for C:**

First biased statement: *I’ll choose the trainer. We definitely need to keep the women in shape*

Second biased statement: *“Maybe a chef [or gardener, if chef is taken] to help us with food? No, one of the women can cook. I’ll go with the student instead. He’s someone we could relate to”.*

Last biased statement: *“I’ll choose the [one of the remaining females]. She’s pretty hot. I think we need more women on the island to keep the men satisfied.”*

Back up biased statements (in case one of the first two doesn’t work):

- I’d choose the carpenter [or pilot] but there’s no way a female could do that job right. Instead I’ll go with [one of the neutral selections]
- I’ll go with the tailor. If she can sew clothes, she can do the chores I don’t want to do like washing mine in a creek or whatever.