PERSPECTIVE TAKING: SELF-OTHER OVERLAP AS A MEDIATING PROCESS IN STEREOTYPICAL BEHAVIOR PREDICTIONS

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ABSTRACT

Perspective Taking: Self-Other Overlap as a Mediating Process in Stereotypical Behavior Predictions

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Perspective taking can be instrumental in increasing the accuracy of behavioral predictions made about another (Gold, 2004). Perspective taking decreases the reliance on stereotype-relevant context clues to reach a conclusion. According to the dual processing model (Brewer, 1988) of impression formation, more personalized contact will induce individuated bottom-up processing. Perspective taking causes a perceived temporary overlapping of identity traits with the target of the perspective-taking attempt (Galinsky & Moskowitz, 2000). This identification with a previously unknown other should elicit a self-focus while making predictions about their behavior, thus reducing the reliance of stereotypes in behavioral predictions. A criterion group \((n = 30)\) of M.A. students predicted the likelihood of using each type of social influence. Experimental participants \((n = 82)\) predicted what social influence strategies graduate students are likely to employ to collect class notes from underclass students. Difference scores, subtracting the graduate mean from the mean predictions of each experimental group,
evaluate the relative accuracy of predictions. This study found that participants in the perspective-taking condition made less stereotypical behavioral predictions than objective participants. Moreover, participants in the perspective-taking condition displayed greater levels of congruence with graduate students in overall expectancy scores than participants in the objective condition. This finding corroborates previous research that perspective taking decreases the reliance on stereotype-relevant information to make judgments about another, thus increasing the relative accuracy of behavioral expectancies for participants in the perspective-taking condition. The degree of temporary identity overlap did not differ between experimental conditions. In this study, self-other identity overlap was not a valid mediator of the relationship between perspective taking and stereotype bias.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iv</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>LITERATURE REVIEW</td>
<td>4</td>
</tr>
<tr>
<td>- Expectancies</td>
<td>4</td>
</tr>
<tr>
<td>- Attribution Research: Contributions to Perspective Taking</td>
<td>5</td>
</tr>
<tr>
<td>- Self-other Merger</td>
<td>6</td>
</tr>
<tr>
<td>- Self-other Merger: Assimilation</td>
<td>8</td>
</tr>
<tr>
<td>- Self-other Confusion</td>
<td>10</td>
</tr>
<tr>
<td>- Two Paradigms</td>
<td>11</td>
</tr>
<tr>
<td>- Empathy Mediated by “Oneness”</td>
<td>12</td>
</tr>
<tr>
<td>- Shared Identity and In-groups</td>
<td>15</td>
</tr>
<tr>
<td>- Stereotypes</td>
<td>16</td>
</tr>
<tr>
<td>- Primes and the Subconscious</td>
<td>17</td>
</tr>
<tr>
<td>- Effects and Consequences of Perspective-taking on Judgments and Behavior</td>
<td>20</td>
</tr>
<tr>
<td>Self-other merger mediates the perspective taking-stereotypic response</td>
<td>21</td>
</tr>
</tbody>
</table>
Anxiety mediates the perspective taking – explicit bias relationship........23
Defining mechanisms.....................................................................................23
Perspective taking in context .........................................................................26
Current research in perspective taking.......................................................28
Anchor and adjustment ...............................................................................28
Effect of Social Power .....................................................................................29
Perspective Taking as a Predictor ...............................................................31
STATEMENT OF THE PROBLEM .................................................................33
Hypothesis One ...............................................................................................34
Hypothesis Two ...............................................................................................35
Hypothesis Three ............................................................................................36
METHOD ............................................................................................................38
Power Analysis .................................................................................................39
Participants .......................................................................................................41
Measures and Procedure ................................................................................42
Statistical Procedures .....................................................................................46
Manipulation check .......................................................................................46
Data coding .....................................................................................................47
Statistical assumptions ..................................................................................49
RESULTS ............................................................................................................50
Exploratory Analyses ....................................................................................52
DISCUSSION .....................................................................................................53
Perspective Taking Reduces Reliance on Stereotypic Information in Judgment .....53

Limitations .................................................................................................................57

APPENDIX A..................................................................................................................71

APPENDIX B ....................................................................................................................76

APPENDIX C ....................................................................................................................77
LIST OF TABLES

Table 1. Experimental Mean Difference Scores for Social Influence Strategies ...................45
LIST OF FIGURES

Figure 1. Self-other Merger .................................................................................................... 3
INTRODUCTION

Recognizing the perceptions of another person is a key element of childhood socialization; in fact, it is a stage of human development (Piaget, 1932). Understanding that other people hold different perspectives on any given situation is crucial for facilitating a multitude of human social capacities. Recently, researchers have begun bridging the gap between the philosophies of mind and systematic scientific comprehension of the mechanisms behind understanding another’s perspective.

Perspective taking is a phenomenon in which someone tries to understand a situation through another individual’s point of view, imagining being that other person. There are predominantly two ways researchers incite this type of mental manipulation, figuratively becoming more other-like. One manipulation design causes deep cognitive engagement evoking cognitive empathetic understanding of another’s perspective. The other design has the perspective taker imagine how another person feels while listening to a radio broadcast of a stigmatized individual in a plight, evoking affective empathy (Batson, 2009). There are two pathways to induce perspective taking: to take the cognitive perspective, trying to mimic another’s cognitions, or to take the affective perspective, trying to comprehend another’s feelings (Batson et al., 1997; Galinsky & Moskowitz, 2000).

This study employs the cognitive perspective-taking manipulation in an effort to enhance the predictive power individuals have while making behavioral expectancy judgments. An expectancy judgment is a prediction made about another. Taking the
perspective of another increases the perspective taker’s empathy, social sensitivity to stereotypes, and can change self-perceptions (Batson et al., 1997; Galinsky & Moskowitz, 2000; Goldstein & Cialdini, 2007). Those who adopt a new perspective should increase congruence in their cognitions with the target of the perspective-taking attempt (Gold, 2004). Successful perspective taking allows for better understanding of another person through a process of identification or merging of the self with another (i.e. the self-other merger; e.g., Davis, Conklin, Smith, & Luce, 1996; see Figure 1). The process of deep cognitive consideration for another and their circumstance should figuratively make their self-concept more other-like while influencing the perspective taker to see more of their self-concept in the other (Galinsky, Ku, & Wang, 2005).

This study proposes that perspective taking, in the appropriate setting, will lead to greater accuracy in predictions of the target’s behaviors. Perspective taking reduces the reliance on stereotypes in the process of making a judgment about another (Galinsky & Moskowitz, 2000). The enhanced accuracy in behavioral predictions will coincide with a decrease in stereotypical cognitions about the target of the perspective-taking attempt. The merging of identities between the target and the perspective taker is the cognitive mechanism leading to the prosocial effect of decreased stereotype bias (Galinsky, et al., 2005). I predict that this merging of identities between the perspective taker and the target will be the key psychological mechanism leading to the increase in accuracy of behavioral expectancies.
Figure 1 The merging of self-concept with the identity of another.
LITERATURE REVIEW

Expectancies

This thesis will attempt to use the manipulation of perspective to show an increased accuracy of judgments made about another’s behavior in comparison to judgments made without the use of perspective taking. An expectancy judgment is a prediction made about another. There are elaborate expectancy models designed to predict others defining personality traits (Kenny, 2004). One expectancy model predicts expectancies of intimate partner’s emotions, cognitions, and affective valence activated during their conversation (Simpson, Orina, & Ickes, 2003). However, the models do not directly measure the accuracy of expectancies for another’s judgments. Both studies consider those in intimate relationships whereas the focus of the current study will be on cognitive expectancies for an unknown other.

There is little research concerning accuracy of expectancies among strangers. Other than work conducted on the accuracy of stereotypes (Galinsky, Wang, & Ku, 2008; see Judd & Park, 1993 for review of earlier research) the accuracy of behavioral predictions made about strangers has not been systematically tested (Shrauger, Ram, Greninger, & Marinano, 1996). The last research paradigm to study the factors that influence relative accuracy of self-and-other judgments was the actor observer bias (Nisbett, Caputo, Legant, & Marecek, 1973). The actor observer bias is a part of
Attribution research, which asks individuals to consider another’s mind and make predictions about their beliefs and behavior.

**Attribution Research: Contributions to Perspective Taking**

Attribution research studies the way people form opinions about others. More specifically, much of attribution research details the flaws in the formation of opinions about other people often due to egocentrism. The actor observer bias is the inclination of an individual to attribute the cause of their own actions to situational factors, while tending to attribute observed actions of others to the personality of the actor (Nisbett et al., 1973). This effect occurs due to a deficiency in understanding another’s perspective.

The purpose of this section is to discuss the implications of understanding another’s perspective and the decision-making processes. Researchers sought to suppress the actor observer bias by physically manipulating the participants’ point of view to bring about a new perspective on a situation (Storms, 1973). The change in visual perspective made observers more socially aware and were subsequently more likely to notice the context of the conversation, thus diminishing attribution bias.

Further research conducted suggests that whatever environmental cue attended to will remain perceptually most salient (Taylor & Fiske, 1975). Therefore, the environmental cue one attends to will be overrepresented in subsequent accounts of that situation. A reason for this effect may be that individuals are inclined to project their own unique self-knowledge onto a situation. By changing visual perspective, what is
salient to an individual will change reciprocally. People make attributions based on informational cues received. Individuals have special information about the self and that can lead to differences in attributions made about a situation (Funder, 1980). By striving to adopt the cognitive point of view of another, new environmental cues will become more salient and therefore influential in behavioral predictions. If one is able to accurately adopt another perspective there should be a series of consequences theoretically “elevat[ing] – relative to one’s own self-interest – the interests of [another] person” (Davis et al., 1996, p. 713). This effect is the self-other merger.

Self-other Merger

This section will highlight the importance of merging identities to the basic tenets of perspective taking. What would cause someone to elevate another’s self-interests to the same level as one’s own self-interest? Simply put, to see in another the qualities or traits that one generally ascribes to their own self-image. Each individual identifies with a relatively set group of personality traits, which allows people to adopt a stable self-concept (Markus & Kunda, 1986). However, within the context of a short time frame, self-concept is highly malleable and can symbolically merge with another’s identity (Aron, Aron, Tudor & Nelson, 1991; Davis et al., 1996; Goldstein & Cialdini, 2007). If a cognitive manipulation can engender a merging of self-interests, then theoretically multitudes of possibilities arise for attitude and behavioral change. These include influence on moral reasoning (Batson et al., 2007), altruism (Batson et al., 1997), and
even a decrease in likelihood of interpersonal aggression (Richardson, Hammock, Smith, Gardner, & Signo, 1994).

To study the concept of merging identities researchers identified overlap between participants self-identified personality traits and the supposition of another’s personality traits (Davis et al., 1996). Participants made judgments about another individual’s personality after viewing a recorded interview. One group took the perspective of the interviewee and the other remained objective. After viewing the video recording participants listed traits they attributed to the viewed person. The greatest overlap between self-identified traits and those ascribed to the individual in the video were positive ones (i.e. honest); this only occurred in the perspective-taking conditions. The effect of perspective taking whereby the self becomes more like the self of another person is the self-other merger. These results suggest that the perspective taker uses overlapping cognitions or overlapping trait associations to help understand another cognitively. In a follow up study from the same publication, participants completed the same protocol while a simultaneous task taxed cognitive resources. Participants rehearsed and memorized a nine digit number code, then were required to repeat it following the experimental procedure. Those in the perspective-taking condition displayed the same overlap of identity with positive self-traits. The mind has a finite amount of cognitive resources. With cognitive resources occupied, due to finite mental capabilities, decisions become increasingly reliant on automatic cognitive processing (Bargh, Chen, & Burrows, 1996; Devine, 1989). This led researchers to the conclusion that perspective taking must
take place on a cognitive level as well as a more automatically activated affective pathway.

Perspective taking may take on two separate pathways to create an overlapping of identities. These include the affective pathway or the cognitive pathway. They may both play a role simultaneously (Davis et al., 1996). The affective pathway can take on two states, sympathy or uneasiness, based on the level of perceived similarity between the perspective taker and target of perspective taking. There have been incidents of reactant negative attitudes forming due to perspective takers’ similarity with an individual in a plight (Batson et al., 1997). This may be due to feelings of uneasiness for fear of the same plight befalling the perspective taker. An overlap between the self and target of perspective taking can occur due to a projection of self-traits onto the other (false consensus bias; see Ross, Greene, & House, 1977 for review) or an assimilation of another’s traits to the self (Goldstein & Cialdini, 2007).

Self-other Merger: Assimilation

Goldstein and Cialdini (2007) proposed a revised conceptualization of possible identity merger effects based on self-perception theory (Bem, 1972). Bem’s (1972) self-perception theory states that individuals infer their attitudes, beliefs, and self-concept based on an evaluation of their own actions. Viewing an individual with whom the perspective taker feels a degree of overlapping self-concept can lead to trait assimilation from the target to the perspective taker. For example, an individual adopting the
perspective of another performing well on an analytical test may encourage a belief in one’s own high intelligence level.

The looking-glass self, or reflected self-appraisals, is the concept that we infer who we are based on appraisals from others viewing our own actions (Cooley, 1902). If an individual adopting another’s perspective has a sense of merged identity with the target, the individual may make inferences about their own self-concept based on the other’s actions (Goldstein & Cialdini, 2007). This effect is called the spyglass self. Said another way, if one adopts a new perspective, thus creating a merging of identities with another, the actions of the other individual may influence the perspective taker’s self-concept. This should only occur when the actions of the target of perspective taking are freely chosen, not prescribed by the confines of the social situation (Kelley, 1973).

In one experiment, participants viewed an individual’s self-sacrifice - actively helping a student in need while receiving no reward. When those in the perspective-taking condition identified the other as being internally self-sacrificing, they subsequently viewed themselves as more self-sacrificing. Not only did participants in the perspective-taking condition view their self-concept as more self-sacrificing they also subsequently displayed more helping behaviors (Goldstein & Cialdini, 2007). This experiment displays perspective-taking participants assimilating traits from the other to the self. To demonstrate the strength of this phenomenon, researchers designed a follow up experiment that led the spyglass-self effect to manifest negative consequences for those adopting another’s perspective. Those in the perspective-taking condition viewed the
target of perspective taking as being intelligent, thus assimilating this trait into their self-concept. They then completed a follow up analytical test quickly and confidently. Overconfidence led to poor results on the analytical test. Even after taking the analytical test and performing poorly, a follow up questionnaire showed that participants still reported high levels of confidence for their scores on the analytical test. Those in close relationships also display instances of confusing their partner’s traits for their own.

Self-other Confusion

Within the research field of intimate relationships the definition of closeness is vicariously shared other characteristics (Aron et al., 1991). Self-other confusion demonstrates that participants feel an overlapping of identity with their partner. Researchers used a me/not me paradigm, in which participants are timed as to how quickly they can determine if a trait is representative of their self or not. When a trait occurred that was descriptive of the participant’s partner, but not the participant, there was a delay in response attributed to self-other confusion. This assimilation of another’s traits to the self-concept is congruent with results garnered via perspective taking. Participants predominantly identify positive self-traits that overlap with their partner; this corroborates results of perspective taking research (Goldstein & Cialdini, 2007; Davis et al., 1996; Galinsky et al., 2005). In intimate relationships, individuals identify with their partner through empathizing or understanding how their partner feels. Self-other merger also increases the affective empathy felt for another. Some researchers contend that both
affective and cognitive forms of perspective taking work in unison. However, there are
two general paradigms designed to evoke either a cognitive or an affective form of
perspective taking (Batson, 2009).

Two Paradigms

Two paradigms have dominated the field of perspective taking, each used in a
different research context. One research design evokes empathetic concern (perspective
taking-other) and the other design initiates deep cognitive processing of another to
encourage cognitive mental overlap (perspective taking-self; Batson, 2009). The
manipulation designed to evoke empathetic concern requires the participant to listen to a
radio broadcast of an individual in a plight, with half the participants listening objectively
and the other half imagining how the person on the radio might feel (perspective taking-
other). The deep cognitive processing manipulation presents the participant a picture of
someone from a stigmatized group and requires the writing of a five-minute story about a
day in the life of the person in the picture (perspective taking-self). Both manipulations
require deep consideration of another individual’s situation. There may be both a
conceptual difference and a difference in the cognitive pathways between manipulations,
asking to imagine another’s cognitions (perspective taking-other) versus imagine one’s
self (perspective taking-self) in the other’s situation. However, there have generally not
been differences found in the research between perspective taking-self and perspective
taking-other manipulations, especially when considering perspective taking in the
cognitive sense (Davis et al., 1996; Galinsky et al., 2005; Todd, Bodenhausen, Richeson, & Galinsky, 2011a). The self-other merger is a key component in successful perspective taking regardless of manipulation paradigm.

Empathy Mediated by “Oneness”

Even within the affective perspective-taking paradigm self-other merger explains the subsequent increase in positive helping behavior beyond what the component of empathy can explain. The comparison between empathy and self-other merger happened in large part due to a differing of opinions on the topic of human altruism. Batson has conducted a series of experiments that implicate empathy as the primary variable influencing selfless helping behavior. However, the concept of “oneness” (i.e. self-other merger) can explain in a non-altruistic way the prosocial effects of empathy (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997). This section goes in depth into the research surrounding this disagreement because the result is support for the self-other merger and the possibility that there are both cognitive and affective routes to perspective taking.

Batson and colleagues (1997) define empathy as an other-oriented emotional response, which generates feelings of sympathy and compassion due to imagining how another is affected by their situation. Affective empathy may be a better route to attitude change than perspective taking cognitions because it may deter sub-categorization of an individual. The cognitive perspective-taking manipulation should individualize the
appraisals of an otherwise stereotype-relevant individual therefore sub-categorizing that individual. This may result in the debiasing effects of perspective taking not generalizing to the stereotype-relevant group. These researchers consider emotional response the central route to an evaluation of attitudes, cognitions being the peripheral route. The affect driven perspective-taking manipulation successfully increased positive attitudes towards stigmatized groups such as people with AIDS, homeless people, and even convicted murders. There were cases of reactant effects of perspective taking whereby participants held increasingly negative views of the stigmatized groups following the perspective-taking manipulation. The reactant effect may be due to an individual feeling personally threatened by the status of a stigmatized group. For example, a college freshman adopting the perspective of a young woman with AIDS may feel personally threatened if they had not practiced safe sex leading up to the study. Increased empathy often leads to helping of another individual. This line of research concludes that empathetic helping is an altruistic human need to increase another person’s well-being.

However, in an elegant and comprehensive response to work on the empathy-altruism model, Cialdini and colleagues (1997) replicated the experimental design adding the factor of oneness (i.e. self-other merger). If the self-other merger explains the positive effects of empathy, the subsequent helping behavior would not be altruism because the perspective-taking individual would be acting partly in self-interest. Across four different levels of acquaintance (from a near stranger to a sibling relationship), while also considering three levels of need (from a phone call to an orphan in need of a home),
these researchers demonstrate that the self-other merger explains the relationship between perspective taking and helping behavior better than empathy. In fact, the factor of self-other merger added as the last factor of a hierarchical multiple regression mitigates all explanatory power of empathy on helping. Both studies use comparable experimental designs and indicate that empathetic concern is a valid predictor of helping after accounting for egoistic determinants. The second experiment adds the factor of self-other merger which makes a compelling case for non-altruistic motives of helping (at least within this research paradigm).

A path analysis reveals the reciprocal nature of empathetic concern and self-other merger (pathway works in both directions). This supports the idea that perspective taking may take two routes, one being cognitive and the other affective (Cialdini et al., 1997). Empathetic concern may hold particular advantages over the cognitive manipulations because a more automatic response may help avoid sub-categorization, allowing for diminished stereotyping of a group rather than just the individual (Batson et al., 1997; Galinsky et al., 2005). This debate over altruism solidifies the importance of the self-other merger in the fields of both perspective taking and prosocial behavior. Self-other merger may also be a defining feature of the increase in accuracy of behavioral expectancies.
Shared Identity and In-groups

The study of intergroup dynamics offers congruent ideas about the merging of identities. Self-other merging leads a perspective taker to perceive positive similarities between their self and another person; this results in an in-group favoritism effect (Davis et al. 1996). There is extensive literature on an in-group favoritism effect that reveals people allocate resources to others with which they have association (Brewer, 1979 for review). This effect varies with the amount of similarity one feels with the in-group on a continuum. The degree of self-other identity overlap also varies along a continuum. In-group favoritism effects and the self-other merger effect each involve focus on the specificity of dimensions within the group or self-concept (i.e. singular traits). Moreover, in a similar manner to identifying positive trait overlap those displaying in-group favoritism tend to focus on positives of the in-group rather than hostility towards the out-group. In situations where the group’s interests are most salient, induced by competition for resources between groups, there is a merging of one’s identity with that of the group and the group’s interests.

One study created in-group membership using minimal group theory. In an instance of depleting common resources, participants chose to allocate resources away from themselves choosing instead to allocate resources towards the in-group (Kramer & Brewer, 1984). This effect only occurs when the superordinate goals of the group, as opposed to the individual’s goals, were salient. In another study, using a trait ascription paradigm similar to Davis and colleagues (1996), participants were most likely to ascribe
positive self-traits to the in-group while using differentiating traits to describe the out-group (Cadinu & Rothbart, 1996). Another group of researchers using the me/not me paradigm, described earlier in the Aron et al. (1991) study (see Self-other Merger), demonstrated an identity overlap that caused confusion and thus slower response times for traits that were true of an in-group but not of the participant (Smith & Henry, 1996). Due to the striking similarities between the in-group favoritism effect and the positive prosocial effects of perspective taking, it appears that each may hold one key mechanism in common—the merging of identities. When individuals are not adopting another’s perspective, they will attempt to categorize the person they are judging. Categorization based on perfunctory available information often leads to stereotyping.

Stereotypes

This section will detail what stereotypes are, how they are used, and how commonly we rely on stereotypes in day-to-day life. Stereotypes are the social categories that the mind assigns to an individual upon initial contact, especially in circumstances that do not require further cognitive processing or do not allow for further effortful processing (Brewer, 1988). A stereotype is a value judgment made about the likelihood of the veracity of that judgment based on group membership (Fishbein & Azjen, 1975). In many instances, especially in the modern environment (Cialdini, 1993), people rely on stereotypes and heuristics to make decisions, thus simplifying their world (Allport, 1954; Higgins & Bargh, 1987).
Heuristics and stereotypes tend to rely on simplistic and salient qualities of a group (Allport, 1954; Ford & Stangor, 1992). Moreover, stereotyping and subsequent decisions made based on these judgments occur both within one’s awareness (Devine, 1989) and outside of awareness (Greenwald & Banaji, 1995; Bargh et al., 1996; Devine, 1989). Regardless of the measured level of prejudice for an individual, people generally are knowledgeable about the same amount of stereotypes typically ascribed to any social category (Devine, 1989). When making an expectancy judgment, especially in situations with little information about the target of the judgment, individuals tend to rely on stereotypes to help predict a likely behavior. Stereotypes are the anchor (starting point) from which an individual will make adjustments to predict outcomes. Perspective takers use the self as an anchor (Epley Keysar, Van Boven, & Gilovich, 2004). Perspective takers are therefore likely to make less stereotypical judgments. The current study predicts that non-perspective taking participants will make more stereotypical expectancy judgments than perspective takers. Individuals often do not realize that they are relying on stereotypes to make decisions.

Primes and the Subconscious

The design of the manipulation employed in the current study evokes the cognitive form of perspective taking which requires effortful processing. However, taking the perspective of another should increase self-other overlap at a relatively automatic or subconscious level. This section details the psychological processes of
stereotyping that happen on an automatic level, including possible negative consequences of trying to suppress stereotypes. The differences between thought suppression and perspective taking in their underlying psychological processes lead researchers to suggest perspective taking as an alternative tool for reducing the expression of bias (Galinsky & Moskowitz, 2000).

The term “priming refers to the incidental activation of knowledge structures, such as trait concepts and stereotypes, by the current situational context” (Macrae, Bodenhausen, Milne, & Jetten, 1994, p. 230). The self-concept is primed when individuals attempt to take another’s perspective (Galinsky & Ku, 2004). The mind has a limited amount of resources and under circumstances of duress may react by employing more automatic processing (Bargh et al., 1996; Devine, 1989). When people consciously rely on heuristics or stereotypes to reach a decision their mental resources diminish because activation of stereotypes requires effortful processing (Macrae, Bodenhausen, & Milne, 1995). Researchers refer to the diminishing of finite mental capacity as a cognitive load. When an individual adopts another’s perspective, the ensuing self-focus induces a cognitive load (Fennis, 2012).

Stereotypes, if subtly primed, may never pass into an individual’s awareness (i.e. subconscious). The activation of trait concepts and stereotypes can affect judgment in subsequent situations (Bargh et al., 1996; Wegner & Erber, 1992). Only one categorical stereotype can be activated, or most salient, at one time (Macrae et al., 1995). In one study, participants identified an Asian woman as either Asian or woman depending on the
situational context that made one category more salient. During the process of perspective taking the self-concept is activated which causes the inhibition of other possible social categories (i.e. stereotypes) thus causing more individuated bottom-up processing (Brewer, 1988; Galinsky & Ku, 2004). Bottom-up processing means an individual will focus on multiple characteristics in making an assessment rather than top-down processing, which relies on more encompassing grouping characteristics. The conscious and unconscious structure of stereotype retrieval may affect each other. Consciously trying to suppress an otherwise available stereotype about a group increases cognitive load. Ironically, this makes subsequent retrieval of stereotype-relevant cognitions hyperaccessible (i.e. more easily activated). The hyperaccessibility of stereotypes in this situation is the “rebound” effect (Bargh et al., 1996; Macrae et al., 1994). Thought suppression is a common strategy for reducing the expression of racial bias, but perspective taking may be a better option because it does not prompt a “rebound” effect (Galinsky & Moskowitz, 2000).

When unconsciously primed for a stereotype people tend to act more stereotypically. For instance, in a classic priming study, students primed for the elderly stereotype walked more slowly out of the building than those who received a neutral (stereotype irrelevant) prime (Bargh et al., 1996). This behavioral effect is a form of stereotype assimilation, whereby the activation of a knowledge structure for a stereotype leads to a behavioral manifestation of that stereotype (Dijksterhuis et al., 1998; Spears, Gordijn, Dijksterhuis, & Stapel, 2004). An understanding of these automatic processes
and priming effects on behavior is informative as to how cognitive perspective taking can alter mental representations to reduce racial bias and activate appropriate knowledge structures for making more accurate behavior expectancies.

Effects and Consequences of Perspective-taking on Judgments and Behavior

A series of experiments explore the possibility perspective taking could be used as a tool to reduce biased stereotypic thought patterns (Galinsky & Moskowitz, 2000; Galinsky & Ku, 2004; Galinsky et al., 2005). These researchers delve into how perspective taking may protect against the “rebound” effect and decrease in-group favoritism. The study employs minimal group paradigm highlighting the robustness of the debiasing effect. According to the dual-processing model of impression formation, the more personalized contact during impression formation the more likely people will identify individuating information (Brewer, 1988). Thus, bottom-up processing will cause individuals to form a non-stereotypic mental representation of another. Due to self-other merger induced by the perspective-taking manipulation, impression formation should follow this bottom-up trend rather than the categorization (stereotyping) applied in most situations. Perspective taking may not only have positive interpersonal consequences, but also increase prosocial group behavior. Asking someone to suppress a stereotype, or natural suppression of stereotypes due to social norms (Crandall, Eshleman, & O’Brien, 2002), causes the activation of stereotypic top-down processing (Macrae et al., 1994).
Self-other merger mediates the perspective taking-stereotypic response relationship

One study compared three groups including stereotype suppression, perspective taking, and objective groups (Galinsky & Moskowitz, 2000). Each completed an explicit writing task about a stereotypical group (the elderly), followed by a lexical decision task designed to identify implicit stereotyping. By using the trait overlap scale (see Appendix A) the researchers ascertained the degree of self-other merger. Those in the perspective-taking condition rated the elderly more positively and used less stereotypic content in subsequent writing tasks than those in the no-instruction group. The suppression condition limited stereotypic content in the explicit writing task, but did not increase positive valence ratings towards the elderly. On the following lexical decision task, those in the suppression condition responded faster to stereotype consistent words than either the perspective taking or control groups, due to the rebound effect. Thus, perspective taking is a superior alternative to thought suppression for reducing explicit bias while not evincing subsequent negative implicit reactance. Perspective taking increases self-other overlap on the individual level and on the group level as perspective takers ascribed more self-traits to the elderly as a group than the other conditions. Participants in the perspective-taking condition responded less stereotypically to the elderly as a group than the two other conditions. Moreover, with self-other overlap entered as a covariate, the perspective-taking participants no longer differed from the other conditions on the
amount of stereotype-relevant word use. This indicates that the increased overlap of mental representations was in part responsible for the decrease in stereotypic thought.

There was evidence of trait overlap for both negative and positive traits, which implies that there is an automatic or implicit pathway leading to self-other identity overlap (Higgins, 1996; Galinsky & Moskowitz, 2000). The perspective-taking group did not display an in-group favoritism effect. Valence ratings for the in-group and out-group were equivalent. Therefore, the reduction of in-group favoritism for the perspective-taking group is due to elevated positive valence ratings for the out-group. Moreover, this effect was demonstrated using minimal group theory. The instruction set asked participants to take the perspective of “underestimators” rather than a specific individual and therefore should be regularly generalizable to out-groups.

In sum, the study displays ample evidence those individuals who adopt another’s perspective decrease stereotypic thought patterns towards otherwise stereotype-relevant groups. Perspective taking causes the self-other merger effect. The self-other merger leads to both a more personalized evaluation of an individual (Brewer, 1988) and a self-focus, thus inhibiting other stereotypical categories from being activated (Macrae et al., 1995). The current study will employ the trait ascription measure used in this experiment and should detect a merging of identities in the perspective-taking condition. Trait overlap mediated the stereotypicality of judgments (Galinsky & Moskowitz, 2000). The current study will attempt to use trait overlap to mediate the stereotypicality of behavioral
judgments. Expectancies should increase in congruity with the target of perspective taking as they become less stereotypical.

**Anxiety mediates the perspective taking – explicit bias relationship**

Increased quality and quantity of intergroup interaction increases the amount of perspective taking undertaken by individuals on behalf of an out-group (Aberson & Haag, 2007). Moreover, perspective taking partially mediates the relationship between increased contact quality and quantity with the decrease in anxiety felt towards the out-group. Reduced anxiety leads to reduced stereotype endorsement of the out-group and improves explicit attitudes towards that out-group. Increased anxiety for an out-group taxes the cognitive resources available thus inducing a reliance on the use of stereotypes, which creates a barrier to positive intergroup relations. Anxiety mediates the relationship between perspective taking and the expression of explicit bias. The experimental design of this study focused on attitudes of white participants based on previous interactions with black individuals and did not manipulate the use of perspective taking. Perspective taking may reduce explicit bias towards an out-group through multiple cognitive pathways.

**Defining mechanisms**

Successful attempts at perspective taking require the individual adopting a new perspective to maintain a positive self-concept because the merging of identities occurs primarily along self-traits with positive valence (Galinsky & Ku, 2004). In memory, there is a link between positive self-traits and the self-concept (Kuiper & Derry, 1982).
The self-concept activates in cognitive processing as a natural consequence of an individual attempting to adopt a new perspective. Therefore, positive appraisals of stigmatized groups via perspective taking rely on an egoistic self-referencing. Self-esteem, both measured as a chronic personal attribute and experimentally manipulated (via positive or negative feedback on a judgment task), moderated the debiasing effects on judgments made about an out-group (the elderly). In two experiments, only those adopting a new perspective with higher levels of self-esteem rated the elderly in a more positive manner. Individuals that did not adopt a new perspective and those in the low self-esteem research conditions responded stereotypically towards the elderly. Self-esteem only has this moderating effect on group evaluations when the self-construct is activated, a natural consequence of perspective taking. This finding indicates that debiasing effects on judgment induced by perspective taking relies on positive self-reference. Those who have negative self-appraisals draw on these when making judgments towards a stigmatized out-group, thus not gaining the beneficial positive effects generally induced with the perspective-taking manipulation.

Perspective taking has differential effects on judgment and behavior (Galinsky et al., 2008; Ku, Wang, & Galinsky, 2010). The manipulation of perspective causes less stereotypical judgments of groups such as cheerleaders, professors, and African Americans. Simultaneously, through a separate cognitive pathway, behaviors become more stereotypical. Participants in the perspective-taking condition acted more competitively in subsequent tasks when considering the perspective of an African
American and performed better on analytical tasks when considering the perspective of a professor. Yet participants performed worse on analytical tasks when considering the perspective of a cheerleader and walked more slowly when considering the perspective of an elderly individual (Galinsky et al., 2005). Moreover, these differential effects are manifest regardless of whether perspective taking was manipulated or spontaneous, whether measurements of stereotype judgments occurred before or after behavioral expression, and irrespective the participant’s culture (Ku et al., 2010). Mimicking behaviors increase liking and facilitates ease in social interactions, this is the chameleon effect (Chartrand & Bargh, 1999). Perspective takers tend to display stereotypic behavior in favor of social coordination, which lends support to the idea that perspective takers become more other like, including negative traits. These results indicate the robustness of the perspective taking effect by using multiple manipulation paradigms and applying different groups/stereotypes.

The attitudinal and behavioral effects of taking the perspective of an individual generalizes to the group that the individual represents (Galinsky et al., 2005; Vescio, Sechrist, & Paolucci, 2003; Shih, Wang, Bucher, & Stotzer, 2009). However, the positive social judgment effects only apply to the group being considered and does not generalize to overall positive judgments of out-groups or more general understanding of out-group plights. Reliance on the self-concept allows for many prosocial consequences, but may also result in some limitations to the prosocial nature of perspective taking. The context of a perspective-taking attempt may limit debiasing consequences.
Perspective taking in context

The current study attempts to demonstrate that perspective taking will increase the accuracy of expectancies given a particular situational context. However, due to the self-referential nature of perspective taking and the active contemplation of another’s mind, not all contexts should yield increased accuracy of expectancies. Considering what the target is thinking about is a precept of perspective taking. Under certain situational constraints this may lead to negative repercussions (Epley, Caruso, & Bazerman, 2006; Gold, 2004; Okimoto & Wenzel, 2011). For example, participants in a perspective-taking condition display worse performances on analytical tests due to stereotypicality of behavior (Galinsky et al., 2008) or over inflated self-confidence (Cialdini et al., 2007).

Perspective taking in a competitive context may have negative consequences. Individuals tend to overestimate the amount others will act in self-interest while underestimating the amount that they will be acting in their own self-interest; the effect is termed “naïve cynicism” (Kruger & Gilovich, 1999). When one takes the perspective of another in a competitive setting, they will see the egoistic motivation of that other individual. If one supposes the other individual is going to act egoistically, reciprocity dictates that the perspective taker will respond more egoistically, thus causing increased bias (Epley et al., 2006). In one study, perspective takers recognized that they deserved less of a common resource, but acted in a more biased way than the objective group by taking more of the resources for themselves. Moreover, when implementing a similar manipulation framed instead as a cooperative venture this effect is neutralized.
The context of perspective taking is also important when applied to retaliation research (Okimoto & Wenzel, 2011). One experiment demonstrates the causality of a transgression moderated the offended perspective taker’s response. When the responsibility of the transgression was ambiguous, participants in the perspective-taking condition exacted less revenge than in the objective condition. However, when the responsibility of the transgression was clearly intentional, the perspective-taking group exacted more revenge against the transgressor than the objective control group. Perspective taking can lead to positive interactions or reactant negative social effects depending on the actions of the target of perspective taking.

Successful perspective taking increases the congruence of thought patterns between the perspective taker and the target of perspective taking. This congruence can lead the perspective taker to display mental biases consistent with the target of perspective taking (Gold, 2004). The planning fallacy is a bias in thought process that leads individuals to be overly optimistic about their own time schedule for completing a task (Buehler, Griffin, & Ross, 1994). In one experiment, participants predicted how long it would take to complete a task. The perspective-taking group made less accurate predictions about the time it would take to complete a task than the objective group. The perspective-taking participants were overly optimistic in their predictions whereas the objective group was correctly more pessimistic. The perspective-taking participants display the same fallacy as would be expected of an individual planning their own time. Perspective taking increases congruence with another’s mental representations but that
does not always equate to judgments that are more accurate. Perspective taking is a tool that requires the proper context for decreasing bias and increased expectancy accuracy.

**Current research in perspective taking**

The correct context for perspective taking may deter the expression of egocentric bias. Specifically, adopting an other oriented mind set may improve the accuracy of predictions made by individuals in a perspective taking-self condition (Todd, Hanko, Galinsky, & Mussweiler, 2011b). The effects of perspective taking have consequences on an implicit level and research is exploring how to reduce egocentric bias inherent due to the self-referential nature of perspective taking (Todd, Bodenhausen, Richeson, & Galinsky, 2011a). Perspective taking leads to more implicit approach behaviors and less negative associations towards black people on the Implicit Association Test. Priming an other oriented mindset as an antecedent task can reduce egocentric projection during perspective taking. Following the manipulation, participants used less knowledge specific to the self and were able to communicate more effectively in a minimal group interaction setting when working with out-group members. Taking the perspective of an out-group member incites a difference mindset in contrast to taking the perspective of an individual with more similarities.

**Anchor and adjustment**

The field of social cognition attempts to address the process of perspective taking in a simplified manner. When trying to imagine another’s cognitions, due to lack of insight into their mind, the individual adopting a new perspective will apply the use of
heuristics. The nature of heuristics could potentially lead to haphazard judgments. Perspective taking may be an anchor and adjustment process whereby people anchor on the self then adjust towards the other until they reach a satisfactory judgment (Epley et al., 2004). Judgments made by those attempting to adopt another perspective due to the “close enough” nature of heuristics and self-focus are often egocentrically biased. The manipulation used for this field of study was not a traditional perspective taking paradigm, but rather a simple instruction to take another’s perspective. Perfunctory attempts at perspective taking that do not actively engage the cognitions of another may cause an increase in egoistic bias and insufficient understanding of a situation (Galinsky et al., 2008). In a condition with an ambiguous message as the only context clue for taking another’s perspective participants displayed the expected egocentric bias. However, motivation for accuracy greatly reduced egocentric bias by increasing the amount of adjustment from the egocentric anchor, which made judgments increasingly more accurate. The motivation for accuracy is most effective when individuals are confident in the directionality of the adjustment (Simmons, LeBoeuf, & Nelson, 2010). Perspective taking due to self-referential nature should both increase accuracy motivation and confidence in the direction of predictions.

Effect of Social Power

The current study will measure social influence strategies and judgments about how those in power will use their influence. This will allow for predictions and
evaluations of the stereotypicality of responses made by those adopting a new perspective and those remaining objective. Hierarchies of power are inherent in the school system. In college, each class (i.e. freshmen, sophomore etc.), differentiation of degrees (B.A., M.A. etc.), and level of employment for staff (lecturer, professor etc.) is a form of social hierarchy. Generally, those with more years of school demand more respect and have increased social status (Dembo & McAuliffe, 1987). Holding social power over others often results in a corrupting influence (Kipnis, 1972). Those in a condition of increased power are likely to attempt to influence subordinates more often, take credit for the subordinates’ work, and strive to increase the psychological distance from subordinates. Psychological distance is the cognitive recognition of being like another person. This effect is robust with equivalent results from the laboratory to the workplace (Kipnis, Castell, Gergen, & Mauch, 1976). Those who used harsh means of social influence, as opposed to soft social influence powers, felt more responsible for the behavior of those they were attempting to influence. Furthermore, those who felt responsible for the behavioral change devalued those they were influencing.

A more recent study found a congruent effect in which harsh tactics of influence caused those in the power position to take credit for things done well, increase positive self-evaluations, and devalue their subordinates (Klocke, 2009). Moreover, power holders are also less likely to adopt the perspective of their subordinates than the reciprocal relationship (Galinsky, Magee, Inesi, & Gruenfeld, 2006). There is a common belief that power has a corrupting influence over people; a stereotypical portrayal of
those in power is corruption (Lee-Chai, Chen, & Chartrand, 2001). There is a large
degree of association between high status and power (Fiske & Berdhal, 2007). This large
degree of association would lead a stereotypical assessment of one with high status to
portray one that is corrupt, thus more likely to use harsh influencing strategies. Graduate
students have higher status than underclass students. It is stereotypical for underclass-
students to expect graduate students to use harsh influence strategies as means of social
influence.

Perspective Taking as a Predictor

Due to an increase in congruence of mental representations, perspective takers
should be able to better predict the target of perspective taking’s motives and behaviors
than non-perspective takers (Gold, 2004). Increased congruence in cognitions with the
target of perspective taking may increase the degree of accuracy in behavioral predictions
made by perspective takers. There is a possibility that instead of perspective takers
having greater overlap of cognitions they try harder to predict outcomes than non-
perspective takers. In one study, the perspective-taking manipulation resulted in
participants displaying the planning fallacy, which refutes the hypothesis that perspective
takers may be trying harder to be accurate in behavior predictions. The perspective
takers’ exhibiting this fallacy implies that self-other merger is the primary mechanism
causing perspective takers to have increasingly congruent cognitions with their target.
The current study will look to lend further support to these findings by directly measuring degree of self-other overlap via trait ascription (see Appendix A).
STATEMENT OF THE PROBLEM

Perspective taking may increase the accuracy of behavioral expectancies by inducing greater congruence of cognitions between the individual adopting a new perspective and the target of the prediction (Gold, 2004). The primary mechanism behind adopting a new perspective that evinces prosocial judgments and helping behavior is an increased overlapping of identities (Cialdini et al., 1997; Galinsky et al., 2005). Adopting another’s perspective should also decrease anxiety felt toward the target of perspective taking (Aberson & Haag, 2007). Research has indirectly assessed the possibility that increased overlap of cognitions between perspective takers and their target lead to more congruent behavioral expectancies, but did not test directly the amount of self-other identity overlap. Directly measuring the degree of self-other overlap will increases understanding of possible mechanisms by which perspective taking increases accuracy of behavioral expectancies. Increased self-other overlap mediates the relationship between perspective taking and the stereotypicality of judgments towards the elderly (Galinsky & Moskowitz, 2000). Perspective taking should lessen the reliance on stereotypical categories in the process of making the judgment. In turn, this should decrease the accessibility of stereotype categories by both individuating the target of the expectancy causing bottom-up processing (Brewer, 1988; Higgins 1996) and by activating the self-concept (Galinsky & Ku, 2004) that inhibits the use of other social categories (Macrae et al, 1995). Therefore, the current study will directly assess the degree of self-other overlap between participants and the target with a trait ascription.
scale. Comparing behavioral expectancy scores of perspective-taking underclass-students with objective underclass-students in contrast with a graduate student criterion measure of behavioral expectancies will discern if those perspective taking increase the accuracy of behavioral predictions. Judgments made about the likelihood of different strategies used to acquire class notes, each corresponding to a specific type of social power, will ascertain how accurately participants can predict the potential behaviors of graduate students. The degree of self-other overlap should mediate the relationship between perspective taking and degree of congruence on predictions made about the use of social influence strategies. Self-other merger is the mechanism that mediates the relationship between perspective taking and particular positive prosocial behaviors (i.e. helping and stereotype reduction). The criterion group will consist of graduate psychology students. Both experimental condition (perspective takers and objective participants) groups consist of psychology undergraduates.

Hypothesis One

Perspective taking increases the overlap in mental representations between the perspective taker and the target of predictions (Davis et al., 1996; Galinsky & Moskowitz, 2000; Galinsky et al., 2005; Goldstein & Cialdini, 2007). This increase in overlapping mental representations should lead the perceiver and the target to more similarity in judgments compared to an objective observer. The similarity of judgments will be due to increased salience of the situational constraints (Taylor & Fiske, 1975;
Recognizing situational constraints influencing social judgments and individuating a social target will lead to reduced reliance on stereotype categories while making judgments and therefore more congruent expectancies. Moreover, perspective taking should increase motivation for accuracy and confidence in the direction of adjustment toward the other’s mental representations (Epley et al., 2004; Simmons et al., 2010). This leads to the first hypothesis.

Hypothesis 1: Perspective takers will increase the congruence of behavioral expectancies with graduate students to a greater degree than non-perspective takers.

Specifically, perspective-taking underclass-students will more accurately predict the likelihood of graduate students using social influence strategies to acquire class notes than will objective underclass students. This hypothesis will corroborate the findings that perspective taking increased congruence of behavioral predictions in the note-collecting scenario (Gold, 2004). Perspective taker’s expectancies did not differ from the criterion group, but objective participants made more stereotypical judgments.

Hypothesis Two

Those in power tend to treat targets of influence in a harsh manner (Kipnis, 1976). There is a large degree of association between high status and power (Fiske & Berdhal, 2007). Graduate students hold higher status within the institution of learning than underclass students (Dembo & McAuliffe, 1987). Therefore, by comparing across the
experimental group’s expectancies for use of harsh influence tactics by graduate students, the stereotypicality of judgments can be determined. Increases in self-other overlap will increase salience of the situational constraints (Taylor & Fiske, 1975; Higgins, 1996; Vescio et al., 2003) and individuate the target (Brewer, 1988) thus leading perspective takers to less stereotypical judgments. This leads to the second hypothesis.

Hypothesis 2: Participants adopting the perspective of a typical psychology graduate student will predict less reliance on harsh social influence strategies by graduate students to obtain class notes than the objective participants will.

Hypothesis Three

The perspective-taking manipulation increases the amount of overlapping identities between the target of perspective taking and the individual adopting their perspective. The degree of self-other overlap mediates the relationship between perspective taking and stereotypical judgments (Galinsky & Moskowitz, 2000). Perspective takers make less stereotypical judgments than those who remain objective. A greater degree of stereotyping assessed in judgments made by objective participants lead to decreased accuracy in behavioral expectancies (Gold, 2004). Therefore, Hypothesis Three logically follows.

Hypothesis 3a: There will be a greater degree of self-other overlap felt by those adopting the graduates’ perspective than self-other overlap felt by objective participants with a typical graduate psychology student.
Hypothesis 3b: Self-other overlap will mediate the relationship between perspective taking and the stereotypicality of judgments made.
METHOD

This experiment employed two experimental groups, perspective taking and objective, that consist of randomly assigned psychology underclass students. These underclass-students were recruited either through the Humboldt State University participation pool or for extra credit towards a lower-division psychology class. Each participant rated how representative 90 trait concepts were to their self-image (see Appendix A). One group received the perspective taking (other) manipulation (see Two Paradigms) while the other group received instructions to remain objective during a five minute writing task (see Appendix B). The point of the writing task was to induce deep cognitive processing of another individual’s situation. The experimental scenario is that a graduate student has missed a class and needs to attain class notes from an underclass student. Participants were to imagine being in this scenario and rate the likelihood of a graduate student using each of 11 types of social influence strategies to attain class notes (see Appendix C). Class level and degree differentiation naturally confers status and thus social power (Dembo & McAuliff, 1987). At the top of each page of this measure was a reminder that graduate students have more status than underclass students do. Undergraduates then rated how representative each of the 90 trait concepts is of a typical psychology graduate student. Due to the nature of the study, graduate students serve as the criterion measure and were not randomly assigned, which makes this study a quasi-experiment typical in social psychology.
Power Analysis

To determine the sample size necessary for the present study, I used means and standard deviations from the Gold and colleagues (2004) study because it employed the same manipulation to discern expectancy scores from a similar sample. One sample using PhD psychology students and undergraduate seniors found overall expectancy means of 4.23 (seniors) and 3.46 (PhD students). Standard deviation sizes ranged from around 0.5 to 1.2. To be conservative, I approached this power analysis using the large standard deviation size. Using syntax to find exact power, I found a power of .809 for 40 participants per experimental group (Aberson, 2010). These values yielded an effect size of $d = 0.64$. Another sample from this study using freshman and senior undergraduates returned similar results. The overall expectancy values power analysis should be a more conservative estimate of the participant total necessary to achieve acceptable power than harsh social influence powers. Differences in harsh social influence powers had a larger effect in the study (Gold, 2004).

To determine the appropriate sample size for the self-other overlap measure, I used means and standard deviations from the Galinsky and Moskowitz (2000) study. The perspective taking experimental group had a mean overlap of 1.66 whereas the control group displayed overlap of 1.91. The authors did not inform the reader of the pooled standard deviation in the article. Using exact power syntax for between subjects ANOVA, the reported means and sample size were inserted (Aberson, 2010). The pooled standard deviation was adjusted until the proper $p$-value for the planned contrast between
the perspective taking and control group was found as reported in the Galinsky and Moskowitz (2000) study. The pooled standard deviation used to reach this conclusion was 0.4. Using a more conservative estimate of 0.45 with a sample size estimate consistent with the first hypothesis tests, 50 participants per cell yielded a power of .785. The effect size for this effect was $d = 0.55$. The effect perspective taking has on expectancy judgments and the amounts of trait overlap in these previous studies were both a medium to large effect sizes.

I planned to use indirect effects mediation with a bias correct 5000 sample bootstrap macro from Preacher and Hayes (2008). For mediation power of .80 using a bias corrected bootstrap technique with two medium (.39) indirect effects would require a sample size of 71 participants (Fritz & MacKinnon, 2007). With one medium indirect effect and a smaller effect (.26) the sample size requirement for mediation power of .80 is 121 participants. The effect size for the perspective taking self-other overlap relationship is $d = 0.55$ in the Galinsky & Moskowitz (2000) study, which is considered a medium effect. This study also found a relationship between self-other merger and stereotyping using covariance analysis to discern the relationship. There is not enough information reported to recreate a syntax version of the covariate analysis. However, increase in self-other overlap decreases the reliance on stereotype-relevant thought structures and therefore should relate to decreased stereotyping. If at least a small to medium size indirect effect exists between self-other overlap and decreased stereotype bias there should be acceptable power to detect this relationship with at least 100 participants.
Participants

The current study collected 107 experimental participants. However, 25 experimental participants were removed from analyses leaving 82 underclass-students serving as the experimental groups for this study (40 perspective taking and 42 objective). Eleven seniors were collected as an extra credit opportunity for introductory psychology courses. The differentiation between seniors and graduate students at Humboldt State University is small as seniors may be in the process of finishing their undergraduate degrees while already accepted to the M.A. program. Therefore, these senior participants have been removed from analyses. Three experimental participants are not included in analyses because their data was suspicious; all three disingenuously completed the final form by circling the same number for a large majority of the 90 traits. Eleven more experimental condition participants were not included because they did not properly complete the perspective-taking manipulation (see Manipulation check). The experimental sample is 73.2 percent female, 35.4 percent white, 20.7 percent Hispanic, another 20.7 percent identified with two or more ethnicities. 16 freshmen, 33 sophomores, and 33 juniors comprised the experimental groups with a mean age of 20.23 years ($SD = 2.42$). The junior participants were collected exclusively via extra credit for a lower division psychology course, as they were not eligible to sign up via the participation pool. The criterion group consists of 30 graduate students collected through a combination of department wide e-mails and social networking sites; each student is in progress on their M.A. Ages range from 22-38 years old. Half of the graduates collected
are attending Humboldt State University, and the other half responded to a Facebook post, predominantly from the Enterprise High School 2007 cohort.

Measures and Procedure

Prior to the start of the study 18 students participated in a pilot test to assess the internal consistency of the 90-trait concept scale (see Appendix A). The scale yielded $\alpha = .87$ in the pilot study. Following procedures set forth by Aron and colleagues (1991), 90 traits were selected from a trait index (Anderson, 1968). The 90 traits were selected by using 30 traits with high (4.5 and above), moderate (2-3.8), and low (1.8 or less) likeableness ratings. Traits with high meaningfulness ratings and high interrater reliability ratings were selected (Anderson, 1968).

Experimental participants completed the protocol in small groups in the laboratory or in a controlled class setting for extra credit. Experimental participants received a waiver explaining their right to know what the experiment was about and what kind of tasks they would be conducting during the experiment. The researcher informed participants they were free to skip questions or withdraw from the study at any time without penalty. Each participant started by filling out a trait rating scale with 90 traits (see Appendix A). Participants were asked how well each trait is descriptive of them on a 7-point scale ($1 = extremely unlike$ and $7 = extremely like$). A version of this scale previously ascertained in-group trait overlap and tested levels of trait overlap following
the perspective-taking manipulation (Smith & Henry, 1996; Galinsky & Moskowitz, 2000).

A demographics sheet followed the trait ascription scale. The demographic section contained pertinent demographic information. More importantly, this section separates the trait ascription scale from the perspective-taking manipulation. This separation was important because filling out the trait scale will activate relevant self-concept cognitive structures, which is an important part of the perspective-taking manipulation process.

After filling out the demographics section, either participants received the perspective-taking manipulation writing section or instructions to remain objective during the writing section (see Appendix B). The perspective-taking manipulation follows the “a day in the life” paradigm. A uniform picture of a white male was at the top of the page with instructions to “Imagine yourself as this graduate student. Please take five minutes and write a short story about a day in the life of this typical graduate student. Write the story as if you were this graduate student.” The objective group received instructions to remain objective while writing a story about a day in the life of the same individual in the photo.

Upon completion of the writing section, participants completed the social influence scale with the instructions to make a prediction of the likelihood that a graduate psychology student would use each of 11 different influence strategies to obtain class notes from an underclass student (see Appendix C). At the top of this measure was a
sentence reminding participants that graduate students are of higher status within the institution of learning than underclass students. The measure is the adapted power scale modified by Raven, Schwarzwald, and Koslowsky (1998) based on French and Raven’s (1959) hierarchy of social power. There are eleven types of social powers in the scale, each with three questions designed to represent the use of each influence strategy (Raven et al., 1998). Reliability and validity have been reviewed and can be found in Raven et al. (1998), $\alpha$ falls between .67 and .95 respectively for each type of influence strategy (See Table 1 for $\alpha$ of each influence strategy for the current study). The eleven influence strategies break down into seven factors combined to add reliability to the scale. In addition, the scale breaks up into two factors of influence types, one being harsh tactics (such as personal and impersonal coercion) and the other soft tactics (including referent power). The items are scored on a seven point scale from 1 (almost certainly not a strategy) to 7 (almost certainly a strategy). An example of the informational social influence strategy is, “The graduate would give the freshman good reasons for why they wanted the notes”. The social influence strategies information power ($\alpha = .50$) and referent power ($\alpha = .39$) had poor internal consistency in the current study which would case an increase in error variance for calculations. Therefore, these scales were removed from analyses and were not included in the composite scores. In the current study, the social influence scale for overall expectancy scores had internal reliability of .809 (see Table 1).
Table 1

Experimental Mean Difference Scores for Social Influence Strategies

*Note. n = 82. The mean and standard deviation values represent the difference between expectancy scores for each condition compared to graduate student’s predictions. Values closer to zero indicate expectancies more congruent with graduate student predictions.

*p < .05

<table>
<thead>
<tr>
<th>Social Influence Strategy</th>
<th>α</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impersonal Coercion</td>
<td>.69</td>
<td>0.56</td>
<td>1.15</td>
<td>1.05</td>
<td>1.19</td>
<td>1.92</td>
<td>0.43</td>
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<tr>
<td>Personal Coercion</td>
<td>.73</td>
<td>0.28</td>
<td>1.21</td>
<td>0.48</td>
<td>1.21</td>
<td>0.74</td>
<td>0.16</td>
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<tr>
<td>Impersonal Reward</td>
<td>.68</td>
<td>-0.09</td>
<td>1.17</td>
<td>0.27</td>
<td>0.92</td>
<td>1.59</td>
<td>0.35</td>
</tr>
<tr>
<td>Personal Reward</td>
<td>.64</td>
<td>-0.25</td>
<td>1.05</td>
<td>-0.34</td>
<td>0.93</td>
<td>0.41</td>
<td>0.09</td>
</tr>
<tr>
<td>Legitimate Position*</td>
<td>.80</td>
<td>-0.24</td>
<td>0.94</td>
<td>0.40</td>
<td>1.29</td>
<td>2.55*</td>
<td>0.56</td>
</tr>
<tr>
<td>Legitimate Equity*</td>
<td>.81</td>
<td>0.39</td>
<td>1.22</td>
<td>1.13</td>
<td>1.17</td>
<td>2.79*</td>
<td>0.62</td>
</tr>
<tr>
<td>Legitimate Reciprocity</td>
<td>.60</td>
<td>0.08</td>
<td>0.79</td>
<td>-0.07</td>
<td>1.06</td>
<td>0.68</td>
<td>0.16</td>
</tr>
<tr>
<td>Legitimate Dependence</td>
<td>.60</td>
<td>-0.45</td>
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<td>-0.75</td>
<td>1.11</td>
<td>1.30</td>
<td>0.28</td>
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<td>Expert</td>
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<td>-0.74</td>
<td>1.21</td>
<td>-0.19</td>
<td>1.49</td>
<td>1.83</td>
<td>0.41</td>
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<tr>
<td>Harsh Influence Power</td>
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<td>0.10</td>
<td>0.70</td>
<td>0.42</td>
<td>0.50</td>
<td>2.34*</td>
<td>0.52</td>
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<tr>
<td>Soft Influence Power</td>
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<td>-0.59</td>
<td>0.77</td>
<td>-0.47</td>
<td>1.03</td>
<td>0.61</td>
<td>0.13</td>
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<tr>
<td>Composite Expectancy</td>
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<td>-0.05</td>
<td>0.63</td>
<td>0.22</td>
<td>0.50</td>
<td>2.17*</td>
<td>0.48</td>
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</table>
The final scale required the experimental groups to complete the 90-trait scale for the likelihood of a typical graduate student identifying with trait-concepts. The same measure used to start the experiment was employed with a different set of instructions. The instructions dictate that participants should rate the likelihood that typical graduate student possess each trait. Smith and Henry (1996) stated, “Please rate how well each trait describes [graduate psychology students] using the following scale. Although not all group members are exactly alike, group members tend to be similar on many traits and you should provide your personal opinions about the general characteristics of [graduate psychology students].” Upon completion of the trait ascription scale, the participants were thanked and debriefed.

The demographics form and the social influence measure are the only two portions that graduate students were required to complete. The graduates score the likelihood of using each influencing strategy. The answers provided on the social influence section by graduate students serve as the criterion measure. The average of these scores was used to determine the relative accuracy of behavior expectancies for experimental participants.

Statistical Procedures

Manipulation check

Three raters blind to the study condition and hypotheses judged whether participants wrote essays in the first or third person. Those in the perspective-taking
condition should have written in first person displaying the mental manipulation of identity and objective participants should have written in third person about the individual in the picture. Raters mostly agreed about the tense of the writing with five exceptions. In the instances where there was disagreement, the perspective was coded in accordance with the majority view. Participants that did not write in the proper tense were removed from analyses, as they did not properly complete the manipulation. Perspective taking requires deep cognitive processing (Galinsky et al., 2008). Eight participants in the perspective-taking condition wrote in third person. Three participants in the objective condition wrote in first person.

**Data coding**

To test the degree of self-other overlap, difference scores for the trait concept scales were created by subtracting each individual self-concept trait rating (i.e. intelligent) from each individual trait rating prescribed to the typical graduate student by each experimental participant. The absolute value of the difference scores along each trait concept were summed then divided by 90 to create an overall mean trait-overlap index for each participant. A composite of these individual trait-overlap index scores was created by taking the mean of the participant’s scores by condition. The composite mean trait-overlap for each experimental group was compared to discern the degree of self-other overlap.

Difference scores for expectancy judgments were tallied to compare the differences between experimental conditions. The mean of each social influence strategy
(i.e. expert power) was created for each participant by adding together scores from the
three questions that represent the use of that influence strategy then dividing by three.
Expectancy judgment difference scores were created by subtracting experimental
participant mean expectancy ratings for each type of influence strategy from the graduate
mean rating for each influence strategy (see Table 1 for expectancy ratings along each
influence strategy by condition). Information power ($\alpha = .50$) and referent power ($\alpha =
.39$) were not included in the composite scores because the lack of internal reliability
would skew the results for the composite scale by creating unnecessary error variance.
To create an overall expectancy difference index the difference scores for the nine types
of influence strategies with acceptable internal consistency were summed then divided by
nine. Composite difference scores were created for both soft and harsh influence
strategies. The soft influence index includes the mean of difference scores for influence
strategies including – expert and legitimate dependence (Raven et al., 1998), referent and
information were removed due to poor internal consistency. The harsh influence power
index includes the mean of difference scores for influence strategies including – both
personal and impersonal forms of reward and coercion, also legitimate position, equity,
and reciprocity. Factor loadings for legitimate reciprocity and equity are sometimes
ambiguous with justification for either soft or harsh delineations (Raven et al., 1998).
Either way the variables were coded, outcomes for results were congruent. The original
model designated legitimate reciprocity and legitimate equity as harsh influence
strategies so both are included in the harsh influence power index.
Statistical assumptions

Each variable was screened for normality. Only the legitimate position and the trait difference variables had normality issues. Both were transformed using a square root transformation, the legitimate position difference scores were changed to positive values by adding a constant before the transformation. For comparisons of self-other overlap and the indirect effects analysis, the transformed variable for identity overlap was used. The transformed legitimate position variable was used for computing the difference between experimental groups on that individual variable (see Table 1). However, the untransformed variable was used to compute the composite scores, which met the standards for assumptions of normality. Untransformed means are reported for ease of interpretation. Cell sizes and standard deviation sizes are close to equivalent across experimental conditions meeting the criteria for the assumption of equal variance for t-tests.
RESULTS

To be able to directly compare the two experimental groups, difference scores have been created with a mean difference score of zero representing expectancies that reflect the predictions reported by graduate students. The first hypothesis is that perspective-taking participants will have expectancies that are congruent with graduate students’ judgments about the type of influence strategies that they would employ, with objective participants displaying differing expectancies. An independent samples t-test was used to detect the differences in the experimental conditions for overall behavioral expectancies. Participants in the perspective-taking condition ($M = -0.05, SD = 0.63$) displayed greater levels of congruence with graduate students in overall expectancy scores than participants in the objective condition ($M = 0.22, SD = 0.50$), $t(80) = 2.17, p = .033, d = 0.48$. These means reflect a composite of each individual type of social influence strategy (see Table 1).

The second hypothesis proposed that participants in the objective condition would make more stereotypical expectancy judgments than participants in the perspective-taking condition. To assess this hypothesis, an independent samples t-test was conducted across experimental conditions using mean difference scores for harsh influence strategies. Participants in the objective condition ($M = 0.42, SD = 0.50$) predicted graduate students would use more harsh influencing strategies than participants in the perspective-taking condition would ($M = 0.10, SD = 0.70$) $t(80) = 2.34, p = .022, d = 0.52$. There is more congruence between graduate students’ predictions about the use of
stereotypical harsh influence strategies (see the top seven strategies in Table 1) with participants in the perspective-taking condition than participants in the objective condition.

The final hypothesis proposed that participants in the perspective-taking condition would display an increase in identity overlap with a typical graduate student, more than participants in the objective condition. An independent samples t-test across experimental conditions with the transformed trait difference scores index as the dependent variable failed to display conclusive results. The perspective-taking condition ($M = 1.3, SD = 0.48$) did not differ from the objective condition ($M = 1.42, SD = 0.58$) $t(80) = 1.02, p = .312$ $d = .23$.

The second part of hypothesis three predicted the degree of self-other identity overlap would mediate the perspective taking – stereotype bias relationship (harsh influence powers). The perspective-taking condition (IV) was not related to the mediating variable (self-other overlap) $b = 0.47, t = 1.02, p = .311$. Self-other overlap was not related to harsh influence powers (DV) while holding constant the effects of the IV $b = 0.01, t = 0.20, p = .844$. For an indirect effect to be present and mediation to occur, these pathways must be significantly related (Preacher & Hayes, 2004). Thus, there is no conclusive evidence that self-other overlap mediated the relationship between perspective taking and decreased stereotype bias. There is no evidence to support either part of Hypothesis Three.
Exploratory Analyses

There is a difference between experimental conditions for predictions of the use of harsh social influence power, but not for the composite overall expectancy scores for influence tactics. Expectancies for use of soft influence tactics were not expected to differ between research conditions. Perspective taking participants ($M = -1.04, SD = 0.48$) and objective participants ($M = -1.02, SD = 0.55$) were virtually identical when considering soft influence strategy expectancies. The negative values indicate that both research conditions predicted less use of soft social influence powers than what graduates reported they would use (see Table 1 for individual social influence strategies).

To check for sex differences for self-other overlap felt with graduate psychology students a factorial ANOVA was conducted to see if these differences were moderated by perspective condition. Only the main effect for sex is significant $F (1, 78) = 8.0, p = .006, \eta^2 = .094$. Male participants ($M = 1.08, SD = 0.38$) felt a greater degree of overlap with the typical graduate student presented in the study than female participants ($M = 1.44, SD = 0.53$).
DISCUSSION

The primary research assertion made in this paper is that perspective taking, deep cognitive processing about another and their situation, will yield increased accuracy in behavioral predictions for those individuals. Perspective-taking participants were better able to predict a graduate student’s expectations for the types of social influence strategies they would employ to acquire class notes from an underclass student. Primarily this effect is due to those in the perspective-taking condition making less stereotypical behavioral predictions than those in the objective condition. There are situations where reduced reliance on stereotype-relevant information to make judgments yields increased accuracy in behavioral predictions. This study also sought to identify self-other identity merger as a facilitating factor in the decreased reliance on stereotype-relevant information while making expectancies, but there was no evidence of self-other merger.

Perspective Taking Reduces Reliance on Stereotypic Information in Judgment

Perspective taking influences individuals to rely on less stereotype-relevant information in judgments, but act in a more stereotypical manner in favor of facilitating social coordination (Galinsky et al., 2005). Many researchers have theorized as to what specific mechanism causes the shift from relying on stereotypes for decision making to self-focus. This debiasing effect is robust and consistent with a decrease in stereotyping.
displayed in multiple contexts from collecting class notes to cognitively empathizing with elderly individuals (Gold, 2004; Galinsky & Moskowitz, 2000).

In fact, some researchers have suggested that perspective taking is merely an exercise in egoism (Epley et al., 2004). The prevailing theory in the field of social cognition is that the perspective taking exercise shifts the anchor point for a simple anchor adjustment heuristic. Heuristics operate on a fairly automatic level and are a means of simplifying decision making (Allport, 1954; Ford & Stangor, 1992). When trying to imagine another’s cognitions individuals must rely on what they do know to reach a conclusion. The mental manipulation of perspective taking may make salient the similarities in each of us, highlighting basic humanity. Using a self-focus to make a decision about another’s thought process or likely behavior in most cases is a more accurate method than relying on a stereotype to reach a conclusion for the same decision making process. Perspective taking requires deep cognitive processing about another individual and his or her situation (Galinsky et al., 2008). Activation of an anchor and adjustment heuristic does not require deep cognitive processing.

It may be that perspective taking reduces the amount of anxiety felt towards the target of the perspective-taking attempt. Anxiety mediates the relationship between perspective taking and a decrease in stereotypic thought processes (Aberson & Haag, 2007). Reducing the amount of anxiety felt towards an individual frees up cognitive resources otherwise taxed by cognitions relating to anxiety, thus allowing individuals to rely less on stereotypes in the processes of making a judgment. The research conducted
on the relationship between perspective taking and anxiety was in the context of intergroup contact between white and black people. Anxiety may vary in the degree of effect depending on the context of the situation.

According to the dual-processing model of impression formation (Brewer, 1988), actively considering the target of perspective taking and their situation should individuate the target inducing the perspective taker to use bottom-up processing in judgments. Top-down processing would incline a perspective taker to try to place the judged individual into a social category or stereotype that individual. Deep cognitive processing with an individuate approach should activate knowledge structures relevant to the self-concept (Galinsky et al., 2004). Only one social category can be activated and most salient at one time in the mind (Macrae et al., 1995). This impression formation process may be the sequence that allows for a decrease in stereotype-relevant information used in judgments following a perspective-taking attempt.

Each of these theoretical explanations of the decrease in stereotypic thought processing following the perspective-taking manipulation may work in unison with a multiplicative effect. Several researchers believe that effects of perspective taking happen on both a deep cognitive level, increasing the cognitive load, and at an implicit affective level (Davis et al., 1997; Galinsky & Moskowitz, 2000). Perspective taking and anxiety play a multiplicative mediating roll between the relationship of contact with an out-group and reduced stereotyping (Aberson & Haag, 2007).
There was increased relative accuracy of overall behavioral predictions for participants in the perspective-taking condition. Two of the soft social influence powers were removed from analyses due to poor reliability. This left only two soft social influence powers in the composite for overall behavioral expectancies. Both experimental conditions underestimated the use of these two soft social influence powers by graduate students as strategies to collect class notes. There were seven types of harsh social influence powers included in the overall behavioral expectancy scores. Stereotype-relevant influence strategies made up most of the composite for overall behavioral expectancies, and increased relative accuracy for perspective takers may reflect the decrease in reliance on stereotype relevant information.

Deep cognitive processing about another’s situation should increase the amount of identity overlap felt by the perspective-taking individual with the target of the attempt (Davis et al., 1997; Galinsky et al., 2005). The current study failed to detect a difference for identity overlap felt by experimental participants with the graduate student. The total amount of overlap for both groups, average difference of 1.3 and 1.42 respectively, was greater than overlap felt by experimental participants towards the elderly in a previous study, 1.66 and 1.91 respectively (Galinsky & Moskowitz, 2000). This may be due in part to the context of the situation and the likeness of participants to the target of perspective taking, with undergraduates and M.A. students having many more similarities than undergraduates and elderly individuals.
Limitations

The primary limitation for this study is the way the participants were collected. The final 79 participants, out of 107, were collected for extra credit in moderately large class settings, of 15 to 30 people. The uncontrolled setting of a large class in unison with external loci of motivation to complete the study for class credit may have created a situation where many participants made perfunctory attempts at adopting a new perspective. The manipulation calls for a five minute long writing section to engage the participant cognitively with the target of the perspective-taking attempt. More than half of the experimental participants wrote six sentences or less during the period of this manipulation. Without the process of deep active cognitions about another, a merging of identities is far from guaranteed (Galinsky et al., 2008). However, perspective taking affects cognitions through multiple routes and may affect judgments relatively implicitly. Stereotype reduction may occur through implicit processes and not only from deep cognitive processing.

Only a picture of a typical male graduate student was present for the perspective-taking manipulation even though 73 percent of the experimental participants were women. Moreover, women did not feel the same degree of identity merger with the senior graduate student as men did. The ability to detect identity merging from this sample may have been compromised by the lack of consistency in the amount of effort and time spent on the perspective-taking manipulation and failing to match the sex of the target of perspective taking with the experimental participant.
Difference scores assessed the accuracy of judgments made by experimental participants. The mean response made by graduate students on the likelihood of employing each type of social influence strategy to attain class notes served as the criteria of what graduate students’ judgments were. Graduate students were not in complete agreement about these expectancy judgments ($SD = 1.57$) and this sample may not be representative of the general opinions for all graduate students. The results may not generalize outside of state funded school campuses. However, findings concerning reduced stereotypic thought processes for those adopting a new perspective are robust. This study corroborates previous literature, and results suggest that perspective taking reliably reduces the influence of stereotypic thought in judgments made about unknown others.
REFERENCES


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10.1177/1368430205051060

10.1111/j.1467-9280.2006.01824.x


10.1037/0022 3514.95.2.404


10.1037/0022-3514 .92.3.402


APPENDIX A

Trait Scale

Please mark how well each trait is descriptive of your personality

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</table>
This is a typical graduate student in psychology. Imagine yourself as this graduate student.

Please take five minutes and write a short story about a day in the life of this typical graduate student. Write the story as if you were this graduate student.

The objective condition had the same picture with these instructions:

This is a typical graduate student in psychology.

Please take five minutes and write a short story about a day in the life of this typical graduate student.
APPENDIX C

INSTRUCTIONS: Imagine yourself as the psychology graduate student at your university, seen previously in the picture. The graduate student is asking to borrow the class notes of a freshman. Typically graduate students are of superior status. Try and imagine you are this person. Suppose that the graduate student were to ask this freshman for a copy of their class notes. It is very important to you that this person give you a copy. You know that you can influence this person to comply if you use the right strategy. On the following pages are a number of strategies the graduate student might use that could work. Read each statement carefully, thinking of the situation this graduate student is in. Decide how likely it would be that each would be a strategy that you, a graduate student would use. Fill in the number for each, which most closely corresponds to whether you feel that this would be a likely strategy and/or reason. Use the following numbers for your answers. Remember you are a graduate student trying to influence a freshman.

As a graduate student this is:

(1) **Almost certainly not** a strategy they would use.
(2) **Very probably not** a strategy they would use.
(3) **Probably not** a strategy they would use.
(4) **Possibly** a strategy they would use.
(5) **Probably** a strategy they would use.
(6) **Very probably** a strategy they would use.
(7) **Almost certainly** a strategy they would use.

Please circle the appropriate numbers below each possible strategy. Also, please remember that in each case we are dealing with a situation in which the graduate student wants the freshman to comply with their request. You are indicating the likely strategies they would use and reasons why the freshman might comply.

REMINDER: You are dealing with a situation in which the previously shown graduate wants the freshman to give them a copy of their class notes. We will be presenting you with a number of strategies and/or reasons the graduate might use to achieve compliance, and asking you to indicate how likely it is that they would use them. You will indicate the likelihood by circling the numbers according to the following scale.
Imagine you are the graduate student from the picture. When the graduate student of higher status asks a freshman of lower status to give them a copy of their class notes, a likely strategy they would use, and reason why the freshman might comply would be because:

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1. The freshman probably feels the graduate student knows what's best.
   1 2 3 4 5 6 7

2. The graduate could give the freshman undesirable tasks.
   1 2 3 4 5 6 7

3. The graduate may have done some nice things for the freshman in the past and so the freshman would do this in return.
   1 2 3 4 5 6 7

4. It would be clear that they really depend on the freshman to do this for them.
   1 2 3 4 5 6 7

5. By doing so, the freshman could make up for problems they may have caused for the graduate in the past.
   1 2 3 4 5 6 7

6. The graduate could make things unpleasant for the freshman.
   1 2 3 4 5 6 7

7. It would make the freshman feel better to know that the graduate liked them.
   1 2 3 4 5 6 7
Imagine you are the graduate student from the picture. When the graduate student of higher status asks a freshman of lower status to give them a copy of their class notes, a likely strategy they would use, and reason why the freshman might comply would be because:

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8. The freshman would see the graduate as someone they could identify with.
1  2  3  4  5  6  7

9. The freshman would realize that unless they did so, the graduate's life would be more difficult.
1  2  3  4  5  6  7

10. The graduate would have carefully explained the basis for the request.
1  2  3  4  5  6  7

11. It would be disturbing for the freshman to know the graduate disapproves of them.
1  2  3  4  5  6  7

12. The freshman would feel that the graduate probably knows more about this kind of thing than they do.
1  2  3  4  5  6  7

13. It is within the role as graduate student to tell them what to do.
1  2  3  4  5  6  7
Imagine you are the graduate student from the picture. When the graduate student of higher status asks a freshman of lower status to give them a copy of their class notes, a likely strategy they would use, and reason why the freshman might comply would be because:

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14. Complying with the request might help make up for things they had not done for the graduate previously.
1 2 3 4 5 6 7

15. The graduate could possibly help the freshman receive some special benefits.
1 2 3 4 5 6 7

16. The graduate might be cold and distant if the freshman did not do as requested.
1 2 3 4 5 6 7

17. The graduate would give the freshman good reasons for why they wanted the notes.
1 2 3 4 5 6 7

18. The freshman would understand that the graduate really needs their class notes.
1 2 3 4 5 6 7

19. They are both part of the same university and therefore should see eye to eye on things.
1 2 3 4 5 6 7
Imagine you are the graduate student from the picture. When the graduate student of higher status asks a freshman of lower status to give them a copy of their class notes, a likely strategy they would use, and reason why the freshman might comply would be because:

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20. The older student has the right as a graduate student to request that the freshman lend them their notes.

21. The graduate could make the freshman feel more personally valued if they do as requested.

22. The freshman may have made some mistakes in the past that affected them, and might therefore feel that they owe this to the graduate.

23. The graduate could help make it easier for them to get ahead.

24. The graduate may have previously done some good things that the freshman had requested.

25. It might make the freshman feel more personally accepted when the graduate asked for notes.
Imagine you are the graduate student from the picture. When the graduate student of higher status asks a freshman of lower status to give them a copy of their class notes, a likely strategy they would use, and reason why the freshman might comply would be because:

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26. As a freshman they would have an obligation to do as requested.
1 2 3 4 5 6 7

27. The freshman may look up to the graduate student and therefore they would follow their request.
1 2 3 4 5 6 7

28. The graduate would probably have more knowledge about this than they would.
1 2 3 4 5 6 7

29. The graduate could make it more difficult for the freshman to get some special benefits.
1 2 3 4 5 6 7

30. The freshman would expect to get some sort of favorable consideration for this.
1 2 3 4 5 6 7

31. The freshman would just understand why the graduate was asking for the notes.
1 2 3 4 5 6 7

32. They could have let the freshman have their notes in the past and so the freshman would feel obliged to give up theirs this time.
1 2 3 4 5 6 7

33. The freshman would be upset knowing that they were on the bad side of the graduate if they didn't give them the notes.
1 2 3 4 5 6 7